



January 2025



MESSAGE

MINISTER FOR LOCAL GOVERNMENT AND RURAL DEVELOPMENT BALOCHISTAN

Sanitation is not just about infrastructure; it is about dignity, health, and the overall well-being of our communities. In Balochistan, where we face persistent challenges such as water scarcity, climate change, and limited financial resources, ensuring safe and sustainable sanitation for all is more critical than ever. Recent emergencies, including devastating floods and prolonged droughts, have underscored the urgent need for resilient sanitation systems that can withstand climate shocks and protect public health.

This revised updated Balochistan Sanitation Policy Strategy represents our unwavering commitment to transforming sanitation services through inclusive, climate-resilient, and community-led approaches. It prioritizes equity, ensuring that marginalized populations, including women, children, and persons with disabilities, have access to safe and dignified sanitation. However, achieving this goal requires more than just policy; it demands action, innovation, and collective responsibility. We must explore new, adaptable service delivery models that are not only cost-effective but also empower local communities to take ownership of sanitation solutions. Special thanks are extended to UNICEF for their invaluable technical and financial support to this assignment, provided through AWF Pvt Ltd.

I urge all stakeholders including government departments, civil society, private sector actors, and development partners to collaborate in implementing this policy effectively. With sustained commitment, innovative financing mechanisms, and strong community participation, we can create a future where every citizen of Balochistan has access to safe and sustainable sanitation. Together, we can build a cleaner, healthier, and more resilient province, ensuring that no one is left behind.

Mir Hamza Zehri

Minister

Local Government and Rural Development Department

Government of Balochistan

MESSAGE

CHIEF SECRETARY BALOCHISTAN

Sanitation is a fundamental pillar of public health, social equity, and economic development. Access to adequate sanitation remains a challenge in Balochistan, particularly for vulnerable populations in rural and disaster-prone areas. Climate change is intensifying these challenges, with rising temperatures, extreme weather events, and water shortages directly impacting sanitation infrastructure and service delivery. The recent floods have demonstrated how fragile our systems can be, highlighting the urgent need for climate-resilient sanitation solutions that can withstand future environmental shocks.

This revised updated Balochistan Sanitation Policy Strategy lays out a structured framework to bridge existing disparities, focusing on accessibility, sustainability, and affordability. It acknowledges the province's financial constraints and the need for cost-effective and locally adapted solutions, including decentralized sanitation systems, nature-based approaches, and innovative financing mechanisms. However, no single entity can address these challenges alone. A whole-of-society approach, where government agencies, communities, and the private sector work in close collaboration, is essential for ensuring long-term success.

As we move forward with the implementation of this revised policy strategy, we must remain committed to promoting citizen-led sanitation initiatives and fostering local ownership. Communities must not only be beneficiaries but also active participants in shaping solutions that meet their unique needs. Through this collective effort, we can strengthen sanitation governance, improve service delivery, and create a more climate-resilient and inclusive Balochistan. We also acknowledge the leadership and support of the Secretary, Local Government and Rural Development Department, for his pivotal role in steering the sanitation policy process and ensuring alignment with provincial priorities. Our deep appreciation goes to UNICEF for their technical and financial contributions for the preparation of this policy strategy document.

Mr Shakeel Qadir Khan
Chief Secretary
Government of Balochistan

FOREWARD BY SECRETARY LGRD BALOCHISTAN

The revised updated Balochistan Sanitation Policy Strategy 2025 is a crucial step towards ensuring universal access to safe and dignified sanitation services, especially in the face of growing climate and economic challenges. The province's geographical diversity, limited financial resources, and frequent natural disasters necessitate a more adaptive and climate-resilient approach to sanitation. From recurrent droughts affecting water availability to floods damaging sanitation infrastructure, we must rethink traditional models and embrace innovative, locally driven solutions that ensure continuity of services even during crises.

This revised updated Sanitation Policy strategy aligns with national and global commitments including sustainable development goals, offering a structured roadmap for strengthening sanitation systems in both urban and rural areas. However, this policy strategy alone is not enough. Effective implementation demands a shift from conventional top-down approaches to decentralized, community-led sanitation solutions. By involving local leaders, women, youth, and the private sector, we can foster a sense of shared responsibility, ensuring long-term sustainability and behavioural change. Alternative financing models, such as public-private partnerships and community-based financing schemes, will be explored to bridge funding gaps and enhance service delivery.

We must also prioritize inclusion and equity, ensuring that sanitation services reach the most marginalized populations, including those living in remote villages, informal settlements, and climate-vulnerable areas. By integrating climate-smart sanitation solutions, we can build resilient infrastructure that not only safeguards public health but also protects the environment. I call upon all stakeholders to join hands in turning this vision into reality.

We acknowledge with grateful thanks the contributions and inputs provided by respective government departments, sectoral agencies, civil society, and international partners to develop this document. We are especially grateful to UNICEF Balochistan for extending their facilitation and technical assistance to complete this task through AWF Pvt Ltd. The contribution of tehcnical working goup is highly appreciated with special thanks to focal persons i.e. Maqsood Shah and Karim Khilji from LGRD, Mr Tanveer Rahim from PHED, Mr Ramzan Achkazi from Quetta WASA, Muhammad Masud Aslam, WASH and CEE Specialist from UNICEF Balochistan Field Office and Niaz Ullah Khan from AWF Pvt Ltd for revising and updating this policy strategy document.

Abdul Rauf Baloch

Secretary

Local Government and Rural Development Department

Government of Balochistan

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ACRONYMS

AD	Assistant Director
BLGA	Balochistan Local Government Act
BOT	Build Operate and Transfer
CBOs	Community Based Organization
CLTS	Community Led total Sanitation
CSOs	Civil Society Organization
CSR	Corporate Social Responsibility
DO	Development Officer
DSC	District Sanitation Committee
IEC	Information, Education and Communication
IMR	Infant Mortality Rate
IPH	Institute for Public Health
JMP	Joint Monitoring Programme
LGRDD	Local Government and Rural Development Department
MDGs	Millennium Development Goals
MHM	Menstrual Hygiene Management
MICS	Multiple Indicators Cluster Survey
MIS	Management Information System
MTDF	Mid Term Development Framework
NGOs	Non-Government Organizations
NIPS	National Institute of Population Studies
NRB	National Reconstruction Bureau
O&M	Operation and Maintenance
ODF	Open Defecation Free
P&DD	Planning and Development Department
PATS	Pakistan Approach to Total Sanitation
PHED	Public Health Engineering Department
PPP	Public-Private Partnership
PSC	Provincial Sanitation Committee
PSDP	Public Sector Development Programme
PSLM	Pakistan Social and Living Standards Measurement Survey
RDA	Rural Development Academy
RSP	Rural Support Programme
SDGs	Sustainable Development Goals
SDSC	Sub Divisional Sanitation Committee
U5MR	under Five Mortality Rate
UCs	Union Councils
UNICEF	United Nations International Children's Emergency Fund
WASA	Water and Sanitation Authority
WASH	Water, Sanitation and Hygiene

CONTEXT

Sanitation is fundamental to improving public health, enhancing community well-being, and fostering economic development. It is more than just a matter of convenience—it plays a crucial role in protecting human health and extending life spans (Naughton & Mihelcic, 2017). The United Nations General Assembly, in its 2010 Resolution 64/292, explicitly recognized the human right to water and sanitation, stating that these are essential for the realization of all other human rights (WHO, 2022). In Pakistan, while sanitation is not directly recognized as a fundamental right, Article 9 of the Constitution implicitly guarantees the right to a clean and healthy environment under the right to life. A clean environment is essential to prevent the spread of numerous diseases that affect the population, especially in rural and underserved areas. Diseases such as polio, diarrheal diseases, typhoid, malaria, and cholera are closely linked to poor sanitation practices. Among these, diarrhoea remains a leading cause of death in children under five, with 53,000 deaths reported each year in Pakistan alone.

A major contributor to the spread of these diseases is open defecation, a practice prevalent in rural, low-income communities. Open defecation not only increases the risk of disease but also perpetuates a vicious cycle of poverty, malnutrition, and inequality. Countries with the highest rates of open defecation also experience the highest levels of child mortality, malnutrition, and economic disparity (Belay et al., 2022). Eradicating open defecation is essential for improving the overall health and well-being of communities and reducing inequalities by ensuring access to basic sanitation for all.

The environmental implications of inadequate sanitation extend beyond health concerns. Pakistan, ranked as the 8th most affected country by climate change between 2000 and 2019, is already facing the consequences of environmental degradation (Global Climate Risk Index, 2021). A significant contributor to this problem is methane emissions, a potent greenhouse gas. Methane, particularly from pit toilets in rural areas, accounts for over 4 % of global anthropogenic methane emissions (Reid et al., 2014). As part of its climate strategy, Pakistan has committed to reducing greenhouse gas (GHG) emissions by 50 % by 2030, with a focus on nature-based solutions to mitigate the effects of climate change. This is in line with the Global Methane Pledge, which aims to reduce global methane emissions by 30 % from 2020 levels by 2030 (Global Methane Pledge, 2021). Proper sanitation management is key to reducing methane emissions, thus playing a vital role in Pakistan's efforts to combat climate change while improving public health outcomes.

INTRODUCTION

Balochistan, the largest province of Pakistan, has seen its population grow from 1.16 million in 1951 to 14.89 million in 2023. Spread over 347,190 square kilometres, the province constitutes 43.6% of Pakistan’s landmass yet has a relatively low population density of 42.9 persons per square kilometre, with about 30.9% living in urban areas. The population is spread across a complex administrative structure comprising 8 divisions, 34 districts, and 7,057 mouzas (revenue villages), of which 6,357 are rural settlements. However, only 375 of these rural settlements have populations exceeding 5,000, highlighting the sparsely populated nature of the province. This dispersed population creates significant challenges for service delivery, particularly in remote areas.

Figure 1: Geographical Profile of Pakistan



Balochistan’s health indicators remain alarmingly poor. The Infant Mortality Rate (IMR) and Under-Five Mortality Rate (U5MR) are significantly higher than in other provinces, with rates of 66 and 78 per 1,000 live births respectively (PDHS 2017-18). Diarrheal diseases, largely caused by the use of unsafe drinking water and inadequate sanitation, account for the deaths of 53,000 children under five annually in Pakistan. A lack of awareness around safe water, sanitation, and hygiene (WASH) practices in Balochistan’s rural areas exacerbates these health challenges, contributing to an estimated economic cost of 4% of Pakistan’s GDP, with over 87% of these costs being health related.

In line with Sustainable Development Goal (SDG) 6 on water and sanitation, the Government of Balochistan, through its Local Government and Rural Development Department (LGRDD), has reaffirmed its commitment to improving sanitation across the province. With support from UNICEF, donors, and other key stakeholders, the LGRDD has initiated efforts to formulate a comprehensive Balochistan Sanitation Policy. This policy aims to provide a strategic framework to address the unique sanitation challenges faced by both urban and rural populations in the province.

The Balochistan Sanitation Policy serves as a roadmap to improve sanitation coverage and ensure that the efforts of all levels of government are systematically aligned and coordinated. Drawing from consultations

with relevant departments and stakeholders, the policy integrates valuable feedback and aims to systematically translate national sanitation objectives into actionable outcomes on the ground.

CURRENT STATUS OF WASH:

Drinking Water Service Ladder: The JMP service ladder for drinking water is a global framework used to benchmark and compare water service levels across countries, providing a structured way to monitor progress in WASH. According to JMP, improved drinking water sources are those designed to potentially deliver safe water, including piped water, boreholes, and protected wells. The JMP subdivides the population using improved sources into three service levels:

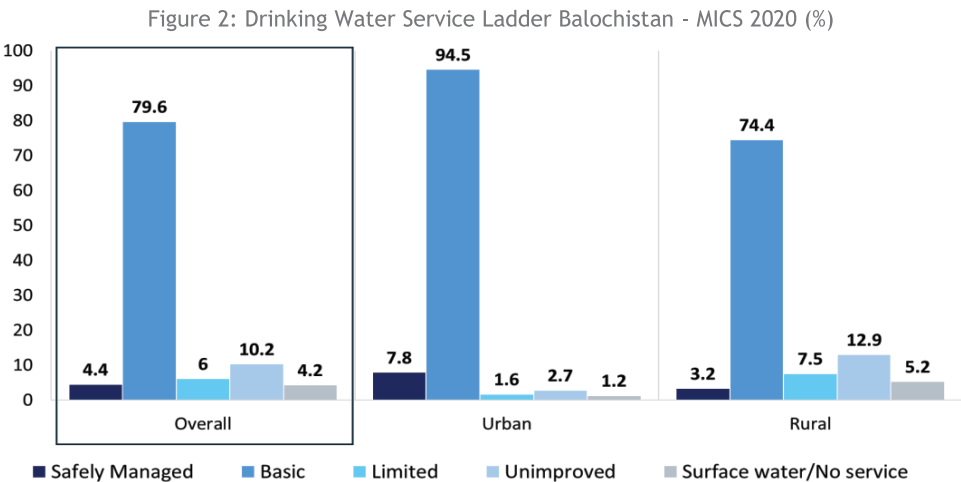
- **Safely managed:** Drinking water from an improved source that is accessible on premises, available when needed, and free from faecal and chemical contamination.
- **Basic:** Drinking water from an improved source with a collection time of 30 minutes or less for a round trip, including queuing.
- **Limited:** Drinking water from an improved source where collection time exceeds 30 minutes.

The framework also includes **unimproved sources**, such as unprotected wells and springs, and **surface water**, directly collected from rivers, lakes, or canals. Monitoring of these water service levels aligns particularly with SDG 6, which aims to ensure universal access to safe and affordable drinking water by 2030.

As per MICS 2020, Basic water services were available to 79.6% of the population, including 94.5% in urban areas and 74.4% in rural regions. Limited water services were available to 6% of the population, including 1.6% in urban areas and 7.5% in rural regions. The reliance on unimproved sources decreased to 10.2% overall, with urban areas reporting 2.7% and rural areas reporting 12.9%. Surface water usage dropped to 4.2% overall, with rural areas showing slightly higher usage at 5.2%.

The safely managed drinking water in Balochistan according to MICS 2020 is used by 4.4% of the household members. In urban areas, 7.8% of the population uses safely managed drinking water, which is nearly double the provincial average. Rural areas have 3.2% of the population using safely managed drinking water service.

These figures underscore significant progress in ensuring safe water access across the province.



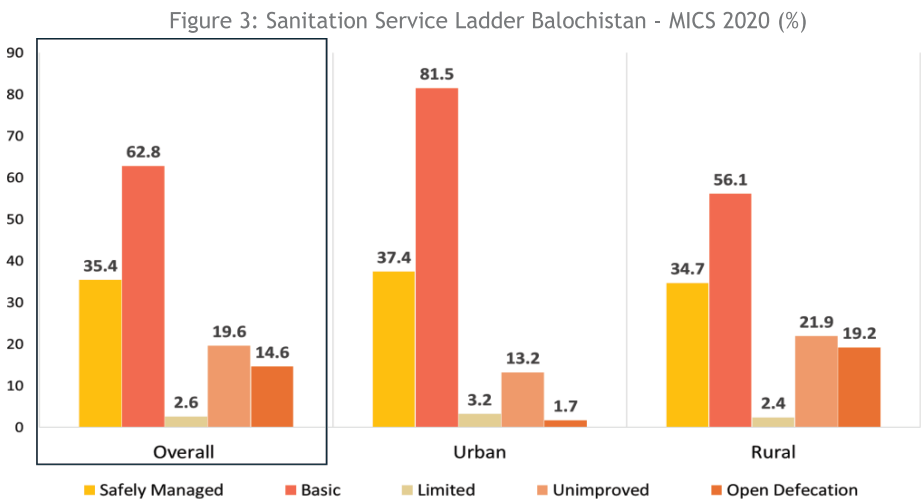
Sanitation: The Joint Monitoring Programme (JMP), sanitation service ladder provides a framework for comparing sanitation service levels across countries. This ladder builds upon the traditional

improved/unimproved facility type classification while introducing additional stages reflecting service levels. To achieve the highest level of sanitation service, known as safely managed (SDG 6.2), three criteria must be met: the sanitation facility must be improved, not shared with other households, and the excreta must be either treated in situ, emptied and treated off-site, or transported via sewer to be treated off-site. If these criteria are not fully met, the sanitation services are categorized as follows:

- **Basic service (SDG 1.4):** Use of improved facilities that are not shared with other households, but where excreta management may not meet the safely managed criteria.
- **Limited service:** Use of improved facilities that are shared between two or more households.
- **Unimproved service:** Use of facilities like pit latrines without a slab, hanging latrines, or bucket latrines, which do not meet the criteria for improved sanitation.
- **Open defecation:** Disposal of human waste in open environments such as fields, forests, or bodies of water.

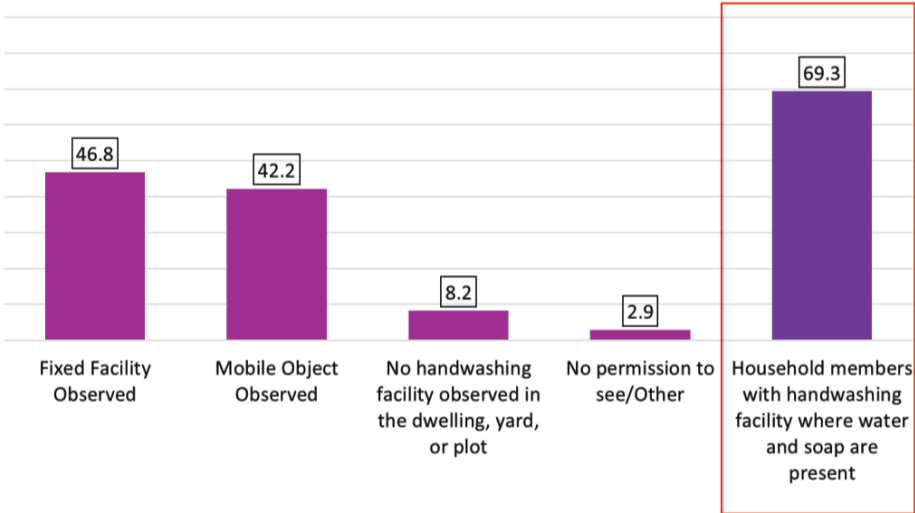
As per MICS 2020, basic sanitation services were available to 62.8% of household members overall, with 81.5% in urban areas and 56.1% in rural areas. Limited sanitation services were used by 2.6% of household members overall, with 3.2% in urban areas and 2.4% in rural regions. Unimproved sanitation services were accessed by 19.6% of household members overall, comprising 13.2% in urban areas and 21.9% in rural areas. Open defecation was practiced by 14.6% of household members overall, with 1.7% in urban and 19.2% in rural areas.

The JMP classifies the safe disposal in situ of excreta from on-site sanitation facilities as safely managed sanitation. Safely managed sanitation services in Balochistan were being used by 35.4% of household members, with 37.4% in urban areas and 34.7% in rural areas. Around 40% of Balochistan has a wastewater sewerage or drainage system, with urban areas (76%) far more covered than rural areas (24%).



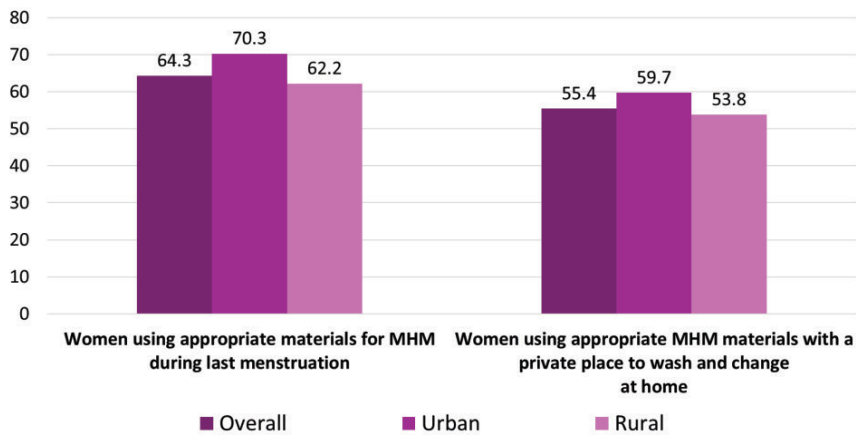
Hand Hygiene: Hand hygiene is fairly established, with 87% of households having water for handwashing and 82% having soap. Fixed handwashing facilities were observed in 46.8% of households, while 42.2% relied on mobile objects for handwashing. Notably, 8.2% of households lacked any handwashing facility within their dwelling, yard, or plot. However, only 69% have dedicated handwashing facilities with both soap and water, with urban-rural disparities (79.3% vs 65.7%).

Figure 4: Handwashing Facilities (%) (MICS 2019-20)



Menstrual Hygiene Management (MHM): According to Balochistan MICS 2019-20, 64.3% of women use appropriate menstrual hygiene materials (70.3% in urban vs 62.2% in rural), and 55.4% have access to private spaces for washing and changing with urban rural disparities (59.7% in urban vs 53.8% in rural).

Figure 5: MHM Practices in Balochistan-MICS 2019-20 (%)

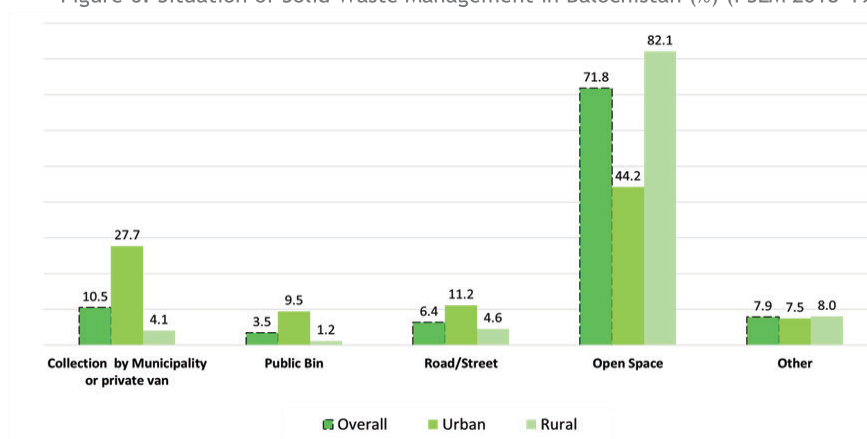


Solid Waste Management: PSLM 2018-19 indicates that the overall solid waste management system is highly inappropriate in Balochistan. Only 10.5%of households benefit from waste collection services provided by municipalities or private vans. While 6.4%dispose of their waste on roads or streets. Public bins are used by just 3.5%Majority of households (71.8 per cent) resort to disposing of their waste in open spaces. Other means of disposal account for 7.9 per cent.

Urban areas have a relatively better situation of formal waste management. Approximately 27.7%of urban households rely on municipal or private van collection services, and 9.5%use public bins. However, informal waste disposal remains prevalent, with 44.2%of households throwing out their waste in open spaces.

In rural areas of Balochistan, 82.1%of rural households dispose of waste in open spaces, with only 4.1%having access to collection services by municipalities or private vans. Public bins are used by only 1.2%of households, and 4.6%of households dispose of waste on roads or streets. The following figure presents the current solid waste management situation in Balochistan as per PSLM 2019-20.

Figure 6: Situation of Solid Waste Management in Balochistan (%) (PSLM 2018-19)



Institutional WASH: As per Education Statistics of Governmetn of Punjab, only 35% of schools have functional toilets, and 17% of schools in the province have handwashing stations. In healthcare, only 45% of health care facilities have access to drinking water, with limited sanitation provisions for people with disabilities and MHM (National Scoping Study for WASH 2020).

CLIMATE CHANGE AND SANITATION

Climate change is a growing concern globally, and in Balochistan, its effects have been particularly devastating. The changing climate directly impacts WASH services, exacerbating already existing vulnerabilities. The region’s susceptibility to extreme weather events such as floods, droughts, and heatwaves has made it difficult for communities to access clean water and maintain sanitation standards, posing significant public health risks. Balochistan’s climate is largely arid, characterized by hot summers and relatively cooler winters. Rainfall is minimal and unpredictable, primarily occurring during the monsoon season from July to September. However, this rainfall is not evenly distributed across the province, with some areas receiving heavy downpours while others face prolonged droughts. The northern and central regions experience occasional heavy rainfalls, while southern areas, such as Makran and Rakhshan divisions, are frequently drought-stricken (PMD 2023). Rising temperatures, particularly in lowland areas where they often exceed 50°C, further exacerbate water scarcity, impacting access to drinking water and sanitation. Below are given key hazards of climate change and impacts on sanitation.

Floods and Rainfall: Flooding has become more frequent and severe in Balochistan, largely due to climate change. In 2022, the Pakistan Meteorological Department reported a 590 % increase in rainfall during the monsoon season compared to previous years. This unprecedented rainfall caused catastrophic flooding in 32 out of Balochistan’s 34 districts, affecting homes, infrastructure, and WASH services. More than 229,000 homes were either destroyed or damaged, leaving many residents without access to clean water or functioning sanitation facilities (PMD, 2023). These floods not only damaged infrastructure but also contaminated water sources, leading to an increased risk of waterborne diseases like cholera and diarrhoea.

Droughts and Water Scarcity: While floods bring immediate devastation, droughts are an ongoing issue in Balochistan, particularly in southern regions. The province has faced several prolonged droughts in recent decades, with some areas, like Makran, experiencing almost no rainfall for years. Water scarcity directly impacts sanitation, as households are unable to maintain proper hygiene without sufficient water. The lack of clean water for handwashing, combined with inadequate sanitation infrastructure, leaves communities

vulnerable to infectious diseases. This demonstrates how climate-induced droughts exacerbate both water scarcity and sanitation challenges in Balochistan.

Heatwaves: Balochistan is also experiencing more frequent and intense heatwaves, which further strain water resources. In cities like Turbat, temperatures frequently exceed 50°C during the summer months, increasing the demand for water. The extreme heat also exacerbates existing health risks, as dehydration and poor sanitation conditions increase the likelihood of illness.

Climate Change Policy of Balochistan 2024: Recognizing the increasing threat of climate change, the Government of Balochistan developed its Climate Change Policy to guide adaptation and mitigation strategies. The policy emphasizes the need for sustainable water management, disaster risk reduction, and the construction of climate-resilient infrastructure.

Key strategies outlined in the policy include:

Water Resource Management: The policy promotes sustainable groundwater extraction and the rehabilitation of traditional irrigation systems like karez. It also encourages the development of rainwater harvesting systems to improve water availability during dry spells for drinking and sanitation.

Resilient Infrastructure: To mitigate the impacts of floods and other extreme weather events, the policy calls for the construction of flood protection walls, embankments, and improved drainage systems for sanitation, especially in flood-prone areas.

Community-Based Adaptation: The policy emphasizes the importance of community involvement in climate adaptation, promoting awareness-raising initiatives and strengthening local capacities to manage water resources and sanitation services.

KEY BOTTLENECKS AND CHALLENGES TO SANITATION IN BALOCHISTAN

Sanitation in Balochistan faces several critical bottlenecks that limit equitable and effective service delivery. Inequities in Access persist, with a significant gap between urban and rural areas. While 62.8% of the population has access to basic sanitation, rural areas lag behind at 56.1%. There is also a stark disparity between income levels, with 91.3% of the wealthiest households having access to basic sanitation compared to just 31% of the poorest households. Open defecation remains widespread, especially in rural areas.

Additionally, 15% of the population has no service, and only 35.4% of sanitation facilities are considered safely managed. The absence of formal sewage networks and proper onsite treatment systems poses health risks in many rural and peri-urban areas. Asset management is weak, with no effective system to track, maintain, or upgrade sanitation infrastructure, leaving many facilities in poor condition. This is compounded by unclear sanitation definitions and weak quality standards, resulting in inconsistent service delivery and poor health and safety outcomes.

Institutional fragmentation is another significant bottleneck. Multiple government bodies, including the LG&RD and the PHED, share overlapping responsibilities, leading to inefficient coordination and resource allocation. Financial constraints further hinder progress, with underfunding and low budget utilization impacting project completion. Only 52% of the sanitation budget was used in 2023-24, largely due to planning delays and procurement challenges.

Balochistan’s reliance on centralized and decentralized sanitation service delivery models, such as sewage networks without treatment plants (as well pit latrines without desludging) does not fit with SDGs criterion of safely managed sanitation. The participation of private sector in sanitation services is limited and very few public-private partnerships (PPPs) exist. Moreover, integrating climate resilience into sanitation planning—such as constructing flood-resistant latrines and developing water-saving technologies—are lacking which are essential for ensuring the sustainability of sanitation services.

Cultural and social barriers persist, particularly in rural areas where open defecation remains socially accepted. Gender-sensitive sanitation solutions, including for MHM, are limited, affecting women’s mobility, education, and participation. The shortage of skilled human resources is another critical issue, with local governments lacking the technical expertise needed to manage and maintain sanitation infrastructure. Lastly, weak monitoring and evaluation (M&E) frameworks impede progress tracking and service delivery improvements, highlighting the need for digital tools and real-time data collection.

Box1: Health Costs of Inadequate WASH

As per a study conducted by Lahore University of Management Sciences in collaboration with WaterAid Pakistan in 2023¹, the economic burden of inadequate WASH services on households in Pakistan amounted to PKR 116.13 billion in June 2019 prices, escalating to PKR 209.23 billion by March 2023 prices. Of this total, 53.1% represents direct healthcare expenses, while 46.9% accounts for productivity losses due to missed work, school, or caregiving responsibilities. Malaria imposes the highest financial burden, contributing nearly 50% of the costs, followed by typhoid at 32.2% and diarrhoea at 17.8%. Additionally, households face an annual economic cost of PKR 145.7 billion (June 2019 prices) due to time lost accessing open defecation sites, with rural areas shouldering 96.5% of these costs. The impact of WASH-related diseases is disproportionately severe for lower-income quintiles, as these groups experience greater wage losses and allocate a larger share of their income to treatment. The poorest and poor quintiles spend 9.4% and 7.4% of their household income on healthcare, respectively, while the wealthier and richest quintiles allocate only 4.5% and 3.1% of their income to these expenses. An estimated economic cost of WASH in Balochistan is provided in Annexure

SDGs AND SANITATION SERVICE CHAIN

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States, sets forth 17 SDGs as a global blueprint for progress. Among these, SDG-6 is crucial, aiming to ensure the availability and sustainable management of water and sanitation for all. Specifically, SDG 6.2 seeks to provide equitable access to sanitation and hygiene services, with a focus on women, girls, and vulnerable populations. Another key aspect is SDG 6.3, which aims to improve water quality by reducing pollution, treating wastewater, and encouraging the recycling and safe reuse of resources.

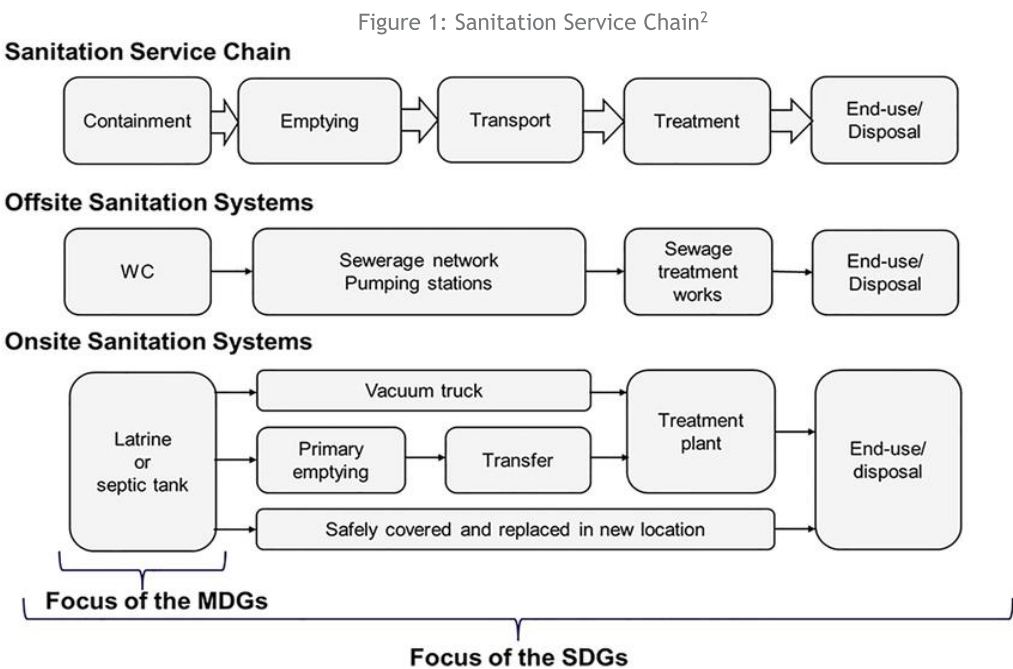
To track these ambitious targets, the JMP of WHO and UNICEF has established a ladder approach to assess sanitation services. The five service levels range from safely managed sanitation—where excreta are safely treated or disposed of—to open defecation, the most unsafe level of sanitation. This ladder allows countries

¹ Burki, A. A., Memon, M. A., & Fahad, M. (2024). *Determining the health costs of inadequate water, sanitation, and hygiene in Pakistan* (Final Report), LUMS, @WaterAid 2024.

to assess their progress, ensuring that sanitation services are hygienically separating waste from human contact. The higher up the ladder, the more comprehensive the sanitation coverage and treatment.

SERVICE LEVEL	DEFINITION
Safely Managed	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated off-site.
Basic	Use of improved facilities that are not shared with other households
Limited	Use of improved facilities shared between two or more households
Unimproved	Use of pit latrines without a slab or platform, hanging latrines, or bucket latrines
Open Defecation	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other spaces or solid waste.

Sanitation systems are broadly classified into two types: sewered systems and non-sewered systems. Sewered systems are off-site and rely on a network of pipelines that transport wastewater from households to treatment plants. These systems depend heavily on a consistent water supply to flush and move waste along the sewer network. On the other hand, non-sewered systems, often referred to as onsite sanitation, include facilities like pit latrines and septic tanks. These systems store excreta at the point of generation and either treat the waste on-site or transport it to another location for treatment and safe disposal. Both systems have unique challenges, and without proper containment, treatment, and disposal, communities are exposed to harmful pathogens, leading to widespread health risks.



To achieve complete sanitation, it is critical to manage the entire sanitation service chain—from the initial capture and containment of waste to its treatment and safe disposal. Inadequate or unsafe disposal, such as open defecation or untreated wastewater, exposes communities to serious health risks, contaminates water sources, and contributes to the spread of diseases. For example, untreated wastewater that pollutes water bodies or is used for irrigation threatens public health, food security, and access to clean drinking water.

² Safi F, Furlong C, Luthra B, Rohilla SK and Brdjanovic D (2022) Monitoring Progress in Citywide Sanitation. Front. Environ. Sci. 9:751534. doi: 10.3389/fenvs.2021.751534

Women and Children Disparities for WASH

Women and children in Balochistan face distinct challenges in accessing adequate WASH services, impacting their health, education, and well-being. The educational landscape underscores these disparities: only 33% of females are literate compared to 51% of males, and 55% of women have never attended school, as compared to 42% of men. Inadequate sanitation in educational settings compounds these issues, as merely 15% of primary schools are equipped with toilet and adequate MHM facilities. This deficit disproportionately affects girls, contributing to absenteeism during menstruation and dropouts.

Nearly 58% of children aged 5-16 years are out of school, with a stark gender gap—64% of girls compared to 52.5% of boys. This high dropout rate highlights the impact of poor WASH facilities on education access and retention, particularly for girls. The lack of safe, child-friendly, and accessible sanitation services exacerbates educational exclusion for both boys and girls.

To address these intersecting gender and age disparities, a comprehensive strategy is required. This includes improving access to secure and private sanitation facilities in schools, fostering child-friendly environments, and integrating WASH considerations into education sector planning in Balochistan.

CLIMATE CHANGE AND SANITATION

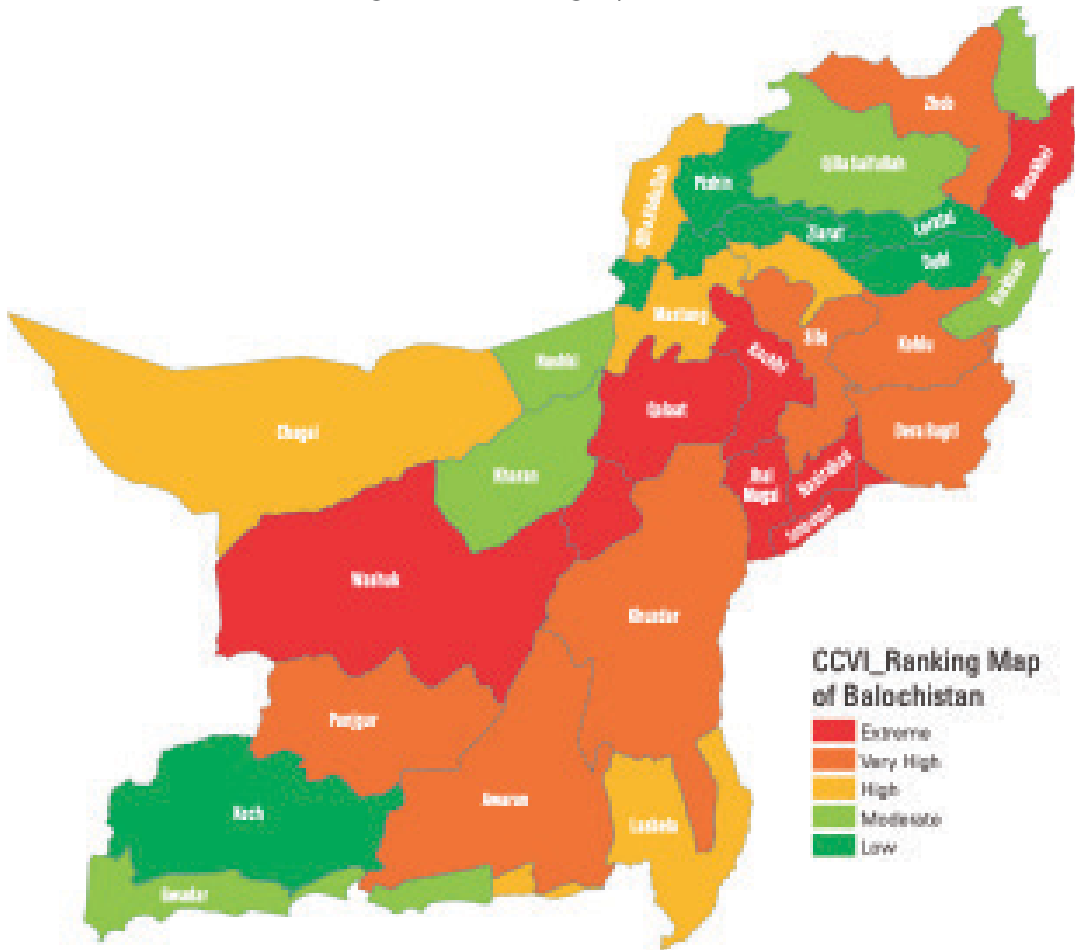
Climate change poses significant threats to sanitation services in Balochistan, exacerbating existing challenges and introducing new risks. Extreme weather events such as floods, droughts, and rising temperatures disrupt sanitation systems, compromise infrastructure, and elevate health risks. Flooding overwhelms septic tanks, pit latrines, and wastewater treatment facilities, contaminating water supplies with human waste and increasing the prevalence of waterborne diseases like cholera and diarrhoea. Coastal areas face additional challenges from rising sea levels, which cause saltwater intrusion, rendering sanitation systems ineffective and accelerating environmental degradation. Droughts further compound these issues by reducing water availability for flushing and cleaning, often forcing communities to adopt unsafe sanitation practices. These effects disproportionately impact marginalized groups, particularly women, children, and individuals with disabilities, who face heightened health risks and compromised safety when sanitation access is limited.

Addressing these challenges requires the development of climate-resilient sanitation systems capable of withstanding extreme weather conditions, ensuring safe waste containment, and minimizing health risks during disasters. Low-carbon approaches, such as energy-efficient wastewater treatment, eco-friendly latrines, and sustainable faecal sludge management, are critical to reducing the environmental footprint of sanitation. Policies must prioritize investments in green infrastructure, flood-resilient designs, and decentralized waste management systems to ensure long-term sustainability. Integrating climate resilience into sanitation frameworks is imperative, with a focus on equitable access in high-risk areas, enhanced disaster preparedness, and support for community-led initiatives.

The Climate Change Vulnerability Index (CCVI) offers valuable insights into the climate risks faced by Balochistan's districts. The CCVI combines measures of exposure, sensitivity, and adaptive capacity to rank districts on their overall vulnerability. Kachhi is the most vulnerable district, with the highest CCVI score of

1, driven by significant exposure (0.69) and minimal adaptive capacity (0.12). Washuk (0.92) and Surab (0.879) follow closely due to similar factors. Conversely, Quetta ranks as the least vulnerable district, with a CCVI of 0.39, supported by moderate exposure (0.45), low sensitivity, and robust adaptive capacity (0.55). Kech and Ziarat also rank among the least vulnerable districts due to their lower exposure and higher adaptive capacity scores. These rankings highlight the urgent need to prioritize interventions in high-vulnerability areas such as Kachhi, Washuk, and Surab while maintaining and enhancing resilience in less vulnerable districts.

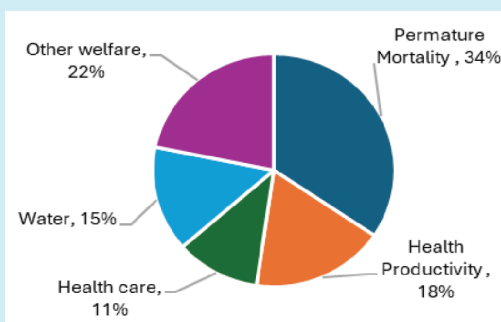
Figure 7: CCVI Ranking Map of Balochistan



By aligning sanitation policies with climate resilience strategies and targeting high-risk districts for immediate action, Balochistan can mitigate the disproportionate impacts of climate change on its communities. Strengthening adaptive capacities, improving sanitation infrastructure, and reducing inequities will be critical to safeguarding public health, protecting livelihoods, and ensuring sustainable development in the province.

Economic Cost of Inadequate WASH Services in Balochistan

The economic burden of inadequate WASH services in Balochistan is immense, with annual losses reaching PKR 85.54 billion, equivalent to 2.19 per cent of the province's GDP. These losses significantly impact health, water access, and overall welfare, worsening socio-economic vulnerabilities in one of Pakistan's most water-stressed regions. With a population of 14.89 million (2023), the scale of these challenges calls for strategic investments in resilient WASH systems.



Health-Related Costs: The health sector bears the largest economic burden at PKR 54.36 billion (63.54 per cent of total costs), primarily driven by premature mortality (34 per cent), productivity losses (18 per cent), and treatment expenses (11 per cent) related to preventable diseases such as diarrhoea, acute lower respiratory infections (ALRI), and malaria. Premature mortality alone accounts for PKR 29.46 billion, while productivity losses contribute PKR 15.24 billion, with diarrhoea being the largest driver. Healthcare treatment costs amount to PKR 9.65 billion, further straining families and systems, with diarrhoea alone making up 89 per cent of this burden.

Water Access and Economic Strain: Inadequate access to safe drinking water contributes PKR 12.51 billion annually (0.32 per cent of GDP). Bottled water consumption dominates, costing PKR 9.19 billion, particularly in urban areas where piped water systems are lacking. For rural households, time spent fetching water amounts to PKR 404 million, and boiling water for drinking adds PKR 830 million to the economic burden. These pressures disproportionately impact women and children, highlighting the need for equitable water infrastructure.

Welfare and Productivity Losses: Poor sanitation and related welfare losses total PKR 18.61 billion (0.48 per cent of GDP). Open defecation contributes PKR 12.72 billion, causing environmental and productivity losses, while shared toilet access adds PKR 5.19 billion. Inadequate facilities in schools and workplaces cost PKR 617 million and PKR 78 million, respectively, directly affecting school attendance and worker productivity. Addressing these issues requires expanding inclusive, climate-resilient sanitation infrastructure.

Drainage and Broader Costs: The absence of proper drainage systems imposes PKR 61 million in annual user costs, reflecting gaps in infrastructure that exacerbate flooding risks. Though relatively small, this cost highlights vulnerabilities that disrupt livelihoods, particularly during heavy rains.

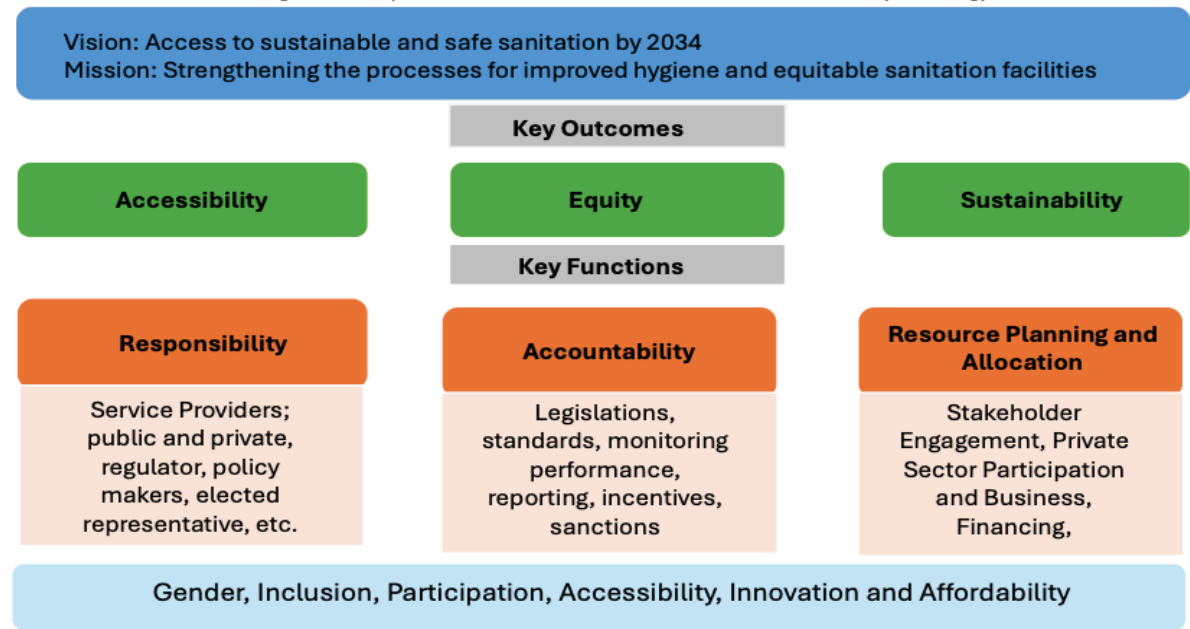
The Need for Action: The cumulative cost of inadequate WASH services—PKR 85.54 billion (USD 292 million)—demands immediate action to address health, water, and sanitation challenges. Targeted investments in flood-resilient infrastructure, decentralized sanitation systems, and groundwater recharge initiatives are essential. Behavioural change programmes, like Pakistan Approach to Total Sanitation (PATS), and expanded access to gender-sensitive facilities in schools and healthcare centres are equally critical.

SCOPE OF THE SANITATION POLICY

Under the SDGs, Safely Managed Sanitation at the household level is defined as the “use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated off-site.” Improved sanitation facilities are designed to hygienically separate human excreta from direct contact, ensuring public health and safety. Sanitation-related actions encompass the development of both sewerred and non-sewerred systems. The sanitation service chain includes key stages: capturing, containment, emptying, transport, treatment, and safe reuse or disposal of human excreta and greywater. Significant gaps exist across all these stages, affecting both rural and urban areas. The development needs of sewerred and non-sewerred systems vary, and this policy aims to address those differences by implementing practical solutions across the entire sanitation service chain. These measures include providing complementary services for the safe transport and removal of human excreta and greywater to treatment facilities, constructing small-scale treatment plants near target communities, and developing decentralized, low-cost wastewater management systems. Additionally, efforts will focus on promoting hand hygiene, safeguarding water sources, constructing eco-friendly and public toilets, and encouraging safe sanitation practices.

The Balochistan Sanitation Policy/ Strategy defines “Sanitation” as the principles and practices surrounding the collection, removal, and disposal of human excreta, solid and liquid waste, along with ensuring effective treatment on-site or off-site. It also emphasizes the promotion of health hygiene practices while embedding climate resilience and sustainability as core elements. The policy addresses the management of liquid and solid waste from municipal, hospital, and industrial sources, along with stormwater management in urban contexts. It fosters cross-sectoral linkages, including nutrition, health, education, and community-driven development approaches, ensuring a holistic and sustainable approach to sanitation.

Figure 8: Proposed Framework of Balochistan Sanitation Policy/Strategy



VISION, MISSION, OBJECTIVES AND PRINCIPLES OF THE POLICY

Vision

The Balochistan Sanitation Policy envisions provision of safely managed sanitation service for all citizens, fostering public health, quality of life, and climate resilience.

Mission

The Balochistan Sanitation Policy will strive for equitable and sustainable safely managed sanitation service for all by fostering a sanitation service model incorporating capture, containment, transport, onsite and offsite treatment, and safe reuse or disposal of waste. This approach shall integrate appropriate faecal sludge management, wastewater treatment solutions tailored to local conditions, and promote adequate hygiene behaviours to protect public health and the environment.

Objectives of the Sanitation Policy

The objectives of the provincial sanitation policy are to strengthen the services for improved environment and public health. The Provincial Sanitation Policy will underpin the commitment of SDGs targets that stipulate that the “proportion of people without sustainable access to basic sanitation will be reduced to zero and all (100%) population will be served by the year 2034 with basic sanitation”. The Provincial Government shall make efforts to ensure achievement of the objectives within its available resources. The policy defined in this document is based upon following objectives:

- Ensure province-wide access to basic sanitation by 2034, focusing on both urban and rural areas, particularly marginalized communities. Implement Citywide Inclusive Sanitation (CWIS) for urban areas and community-driven solutions for rural areas.
- Integrate climate resilience into sanitation infrastructure and include WASH services in disaster risk reduction (DRR) plans, especially in vulnerable areas.
- Create a unified regulatory framework with clear roles for LGRDD, PHED, and others. Update laws on solid, liquid, and hazardous waste management in line with National Environmental Quality Standards (NEQS).
- Allocate resources fairly across districts, with a focus on underserved areas, ensuring sanitation facilities in schools, healthcare centres, and public spaces.
- Promote hygiene practices through community mobilization, IEC campaigns, and school-led initiatives to eliminate open defecation and improve hygiene.
- Foster PPPs for sanitation infrastructure, offering incentives to attract private investment, especially in rural and peri-urban areas.
- Implement cost-recovery mechanisms (tariffs, fees, subsidies) for long-term financial sustainability and ensure sanitation’s inclusion in the Public Sector Development Programme (PSDP).
- Use GIS mapping and surveys for accurate data on sanitation needs and rehabilitate infrastructure with a focus on climate resilience and eco-friendly systems.
- Develop capacity building programmes for stakeholders, focusing on technical skills and innovative sanitation technologies that suit Balochistan’s unique context.
- Ensure sanitation services are gender-sensitive and inclusive, with specific attention to MHM and facilities for vulnerable groups.
- Promote the 3R principle (Reduce, Reuse, Recycle) in waste management, emphasizing proper disposal of solid, liquid, and industrial waste to protect health and the environment.

- Implement a comprehensive M&E framework, with periodic sanitation sector review, to track progress and adjust strategies as needed, with a focus on gender-disaggregated data collection and a four-tiered monitoring system.

Key Principles of the Sanitation Policy

The policy principles below shall define the future approach of improved hygiene and sanitation in rural and urban dwellings while addressing sanitation needs of individual households or provision of a system for entire communities.

- **Safely Managed Sanitation:** Ensure basic sanitation facilities with safe disposal in-site or treatment of excreta, with access to handwashing facilities
- **Behaviour Change Communication:** Promote sustainable hygiene practices across communities as an integral part of all sanitation programmes.
- **Equitable Access:** Recognize sanitation as a basic human right, ensuring resource distribution focuses on marginalized and low-resourced districts.
- **Inter-Sectoral Collaboration:** Encourage collaboration across health, education, and environmental sectors for effective sanitation interventions.
- **Resource Mobilization and Accountability:** Mobilize provincial, local, and community resources with financial transparency and accountability in budgeting.
- **Affordable, Culturally Sensitive Solutions:** Prioritize affordable solutions adapted to local water availability and cultural needs.
- **Public-Private Partnerships (PPPs):** Encourage partnerships with the private sector and NGOs to ease the government's burden in service delivery.
- **Cost Recovery for O&M:** Implement gradual cost recovery for operation and maintenance, defining clear roles for communities and the government.
- **Focus on Vulnerable Populations:** Ensure basic sanitation access for vulnerable and unserved populations, improving equity and gender sensitivity.
- **Women's Role in WASH:** Support women's involvement in household-level WASH through education and community mobilization.
- **Data Collection Aligned with SDG 6:** Standardize and localize data collection frameworks for effective measurement and monitoring.
- **Equitable Resource Distribution:** Distribute national resources equitably based on population size and development needs.
- **Decentralized Solutions:** Prioritize decentralized sanitation systems tailored to the distinct needs of rural and urban areas.

POLICY MEASURES AND STRATEGIES

Programme Approach

The Balochistan Sanitation Strategy envisions the implementation of a comprehensive, climate-resilient sanitation framework tailored to the diverse social, cultural, and geographic contexts of the province. This will be achieved through a combination of CWIS in urban areas and community-driven, market-led approaches, especially PATS in rural areas ensuring equitable access to sanitation services across all communities, including informal settlements, rural populations, and vulnerable groups.

For urban areas, the policy will prioritize the construction of flush latrines connected to a robust sewerage system with properly maintained sewage treatment facilities. In less densely populated urban and rural settlements, the focus will shift to pour flush latrines connected to well-designed septic tanks or soakage pits, ensuring sanitation coverage even in areas lacking sewer networks. These approaches, coupled with PAT, will empower local communities to drive sanitation improvements and maintain Open Defecation Free (ODF) status in rural areas, enhancing sustainability and scalability through local entrepreneurship and community engagement.

Given the increasing risks posed by climate change, the policy integrates climate resilience as a key component. This includes incorporating WASH services into climate-resilient community resettlement plans for flood zones, drought-prone areas, and other climate-vulnerable regions. Sanitation infrastructure in these regions will be designed to withstand extreme weather events and ensure continuity of services even during disasters.

In the event of emergencies, emergency sanitation protocols such as the provision of temporary latrines and hygiene kits will be integrated into disaster response strategies, minimizing health risks related to displacement. Additionally, the policy promotes the 3R Principle (Reduce, Reuse, Recycle) at all levels of government, focusing on waste segregation for the production of bioproducts, reducing environmental pollution, and enhancing resource recovery. Local governments will be encouraged to integrate this principle into solid waste management systems, including composting and waste-to-energy initiatives, both in urban and rural settings.

Legislation, Statutory Update, Coordination and Communication

Legislation/Statutory Update

Balochistan's existing sanitation related legislation and regulations are fragmented and unclear. The current legislative frameworks like Local Government Act 2010 amended in 2022, Balochistan Environment Protection Act 2014 and Balochistan Business Rules have overlapping and duplication. Similarly, Balochistan WASA Act 1989, updated as Quetta WASA Act 2004, has some contradiction on mandate with local government Act. The decentralized nature of governance, coupled with the limited capacity of local institutions, has resulted in inconsistent enforcement and application of water and sanitation regulations. Thus, there is a need for creating a unified framework by reviewing and updating key legislations to make them relevant to Balochistan's local context. Climate resilience and inclusivity are critical in updating these policies, given the province's vulnerability to climate change and the need to provide sanitation services to marginalized groups. By developing localized sanitation definitions and integrating these into provincial and local planning frameworks, the government aims to create a more responsive and inclusive sanitation policy landscape. The current laws on solid waste management shall be updated by assigning responsibilities of citizens, private enterprises, and the government institutions.

Regulatory gaps, especially in solid and liquid waste management, have led to unregulated waste disposal, further degrading the environment and affecting public health. Strengthening the institutions responsible

for sanitation management including liquid and solid waste and creating clear regulations for both public and private sector actors will be key priority. The regulatory framework will not only enforce compliance but also provide incentives for better service delivery. The institutions will also be empowered to monitor compliance and introduce accountability measures to ensure that sanitation services meet the required standards. The necessary framework and regulations shall be required for the formalization of operation and maintenance (O&M), appropriate tariffs for sanitation to achieve cost recovery and sustainability, and a user fee approach. Incentive and reward mechanisms like additional development schemes, matching grants, etc. should be in place for villages achieving different parts of total sanitation like ODF, laying primary sewer lanes, etc.

Coordination and Communication

Sanitation issues in Balochistan intersect with various sectors, including health, nutrition the environment, housing, education, gender, and regional planning. Recognizing this, the LGRD will take the lead in ensuring coordination and communication between relevant departments at every administrative level—provincial, regional, district, tehsil/municipal, and union council—across both rural and urban areas. LGRDD will work closely with key departments such as PHED, Housing, Health, Education, Planning and Development (P&D), Irrigation, Agriculture, and Climate Change and Environmental Protection. By fostering strong partnerships, the department will streamline activities related to sanitation, hygiene promotion, and waste management, ensuring that sanitation strategies are cohesive and comprehensive across all sectors. To support this effort, a Coordination and Communication Committee will be established, tasked with steering the implementation of the sanitation policy. This committee will ensure that strategic planning, regulations, innovation, and operations and maintenance (O&M) efforts are coordinated efficiently. It will also focus on avoiding overlaps between departments, promoting PPPs, human resource development and mobilizing communities.

Policy Redressal and Citizen Participation

The Government of Balochistan will regularly review the Balochistan Sanitation Policy (BSP) on a needs basis. The Provincial Steering Committee (PSC) will assess the need for modifications and submit its recommendations to the government for approval. Any challenges or bottlenecks in the implementation of the policy will be addressed by the Planning and Development Department (P&DD), which has the authority to clarify and resolve issues as necessary. This proactive stance is aimed at maintaining policy relevance and ensuring that obstacles do not hinder progress toward the sanitation goals.

To further ensure that the policy remains responsive to the needs of its citizens, the concept of customer satisfaction will be embedded into the overall monitoring process. Structured feedback mechanisms, such as suggestion boxes and regular citizen surveys offline and online, will empower local communities to have their voices heard. These feedback systems will not only capture insights from the ground but will also foster greater accountability and responsiveness from the government. In line with modern governance practices, the feedback system will be fully digitized, with online record-keeping and customer satisfaction data maintained in a computerized format. This will enable real-time tracking of public feedback, ensuring that local governments can respond swiftly to concerns raised by citizens.

Infrastructure Development for Sanitation

A detailed situation analysis and mapping exercise will be conducted to identify the specific needs and gaps in sanitation services chain across different administrative units, while also preventing the duplication of efforts. The LGRDD in collaboration with other relevant government agencies, will carry out comprehensive surveys and assessments of water, sanitation, and solid waste management services. In addition to traditional physical surveys, Geographic Information System (GIS) mapping will be implemented for settlements and cities across Balochistan. This will enable the creation of a dynamic, location-based

database that can track sanitation infrastructure and service delivery in real-time, allowing for more efficient planning and resource allocation. Such mapping will be especially valuable in identifying underserved areas, prioritizing infrastructure investments, and developing tailored solutions for urban and rural contexts.

The situation analysis will also lay the foundation for a targeted rehabilitation programme aimed at restoring and upgrading damaged or inadequate sanitation infrastructure. The rehabilitation efforts will focus on creating climate-resilient infrastructure, capable of withstanding environmental challenges such as floods and droughts, while ensuring that sanitation systems continue to function effectively. Data collected from these surveys and GIS mapping will be updated periodically at either the tehsil or district level and collated at the LGRDD to ensure a continuous understanding of sanitation needs. This data will be used to guide infrastructure development efforts, with a focus on building eco-friendly, sustainable sanitation systems that cater to the unique geographical and social characteristics of Balochistan. By leveraging technology and a data-driven approach, the province will be able to implement infrastructure solutions that are both responsive and resilient.

The LGRDD will actively collaborate with various departments and the private sector to enhance public toilet infrastructure. For this, PPP model will be adopted, where feasible, encouraging the private sector to construct and operate toilets on a build, operate, and transfer (BOT) basis. Additionally, public toilet construction requirements and specifications will be incorporated into the byelaws of both urban and rural areas. Demonstration models of latrines will be mandatory not only in public spaces but also within large private establishments such as departmental stores, cafés, and restaurants.

Financial Arrangements

To achieve the objectives of this policy, the Government of Balochistan shall ensure the provision of the necessary financial resources from multiple sources, including provincial budgets, federal government allocations, and contributions from donor agencies. The Provincial Government shall make mandatory to allocate funds for the sanitation sector in the annual development plans to ensure consistent financial support. Beside this, the Local Government institutions will also be required to allocate funds specifically for sanitation in their respective development plans. Additionally, these institutions will be encouraged to engage with non-governmental organizations (NGOs), international donors, and the private sector to mobilize additional financial resources for the sanitation sector.

The LGRDD will play a key role in translating the sanitation policy into actionable projects on the ground. This will include ensuring that sanitation is formally recognized as a separate sector within the Public Sector Development Programmes (PSDP) of the Government of Balochistan. The Department of Finance will establish a dedicated sector code for sanitation, which will streamline planning, budgeting, and financial reporting for sanitation projects. In line with the policy's commitment to sustainability, financial strategies will incorporate cost-recovery mechanisms, such as tariffs and subsidies, to ensure long-term financial viability. The Provincial Government will also seek to leverage PPPs to attract private sector investment in sanitation infrastructure and services.

Gender Equity

There are wider disparities among different groups especially the poor, women, children, elderly, persons with disabilities and rural populations. The role of women is significant with regards to water, sanitation, and hygiene education at household and even neighbourhood levels in both rural as well as urban areas. Sanitation services in Balochistan must be inclusive, ensuring that women, children, persons with disabilities, and other vulnerable groups have equal access to safe and dignified facilities. Determined efforts shall be undertaken for developing gender-sensitive policies and facilities that address the specific needs of vulnerable populations. In the short term, the strategy will focus on providing inclusive sanitation services in schools, health facilities, and public spaces. Over the long term, these inclusive practices will be institutionalized across all public sanitation services, ensuring that no one is left behind. The Social Welfare Department, LGRD, and civil society organizations will take special efforts to promote gender equality and social inclusion in sanitation services. The women should be mobilized for construction of latrines, land level sewer management and solid waste management. Women community organizations would be created to engage in sanitation and hygiene. The community organizations should be encouraged to have representation of persons with disabilities and elderly community members.

Menstrual Hygiene Management

The need for Menstrual Health and Hygiene (MHH) is pivotal to ensure equitable and inclusive sanitation services for women and girls while addressing the challenges adolescent girls and women face in accessing safe and dignified facilities for managing their menstrual health. It mandates the provision of gender-sensitive WASH facilities in schools, healthcare facilities, workplaces, and community spaces, equipped with essential supplies such as water, soap, and disposal bins. Emphasis is placed on creating private, secure spaces for menstrual management, with targeted efforts to support girls in schools through MHH-friendly facilities and educational programmes. The policy also prioritizes workplace standards, ensuring employers cater to the MHH needs of female employees. Waste management systems will be strengthened through the introduction of innovative disposal methods, such as biodegradable products, composting, and incineration, PPPs will be leveraged to promote affordable, sustainable solutions.

The policy also underlines the importance of capacity building and public awareness to reduce stigma and build the understanding around MHH. Community education programmes will be implemented to promote proper menstrual management practices, while MHH education will be integrated into school curricula to empower adolescents with knowledge. Mass media campaigns will address cultural taboos and misinformation, fostering an environment of acceptance and support. Monitoring and evaluation mechanisms will track progress, including facility usage, waste disposal practices, and public awareness levels. By prioritizing MHH, the policy aims to enhance the health, education, and well-being of menstruators, promoting gender equity and ensuring a dignified approach to MHH across Balochistan.

Public Private Partnership

The private sector is a largely untapped resource in Balochistan's sanitation sector. By engaging the private sector through PPPs, the province can leverage innovation, technology, and investment to scale up sanitation services. Specific initiatives shall be initiated to create an enabling environment for private sector engagement, with financial incentives such as tax breaks and subsidies for companies that invest in sanitation infrastructure and services. The private sector will play a critical role in developing and marketing affordable sanitation solutions, particularly for underserved rural and peri-urban populations. By fostering collaboration between the public and private sectors, Balochistan can accelerate progress towards universal access to sanitation and ensure that services are sustainable and scalable.

The formal sector of real estate development is establishing townships and housing schemes all over the province. By-laws shall be developed and implemented by the Government of Balochistan for developing sanitation systems, and sewage and wastewater treatment facilities for different sizes of private housing schemes. Informal sector developers shall be responsible for implementing their development plans sanctioned by Urban Unit, LGRDD etc. and responsible for provision of sanitation services. Developers and housing societies will be charged proportionally for using government developed sewage and solid waste management systems. Establishment of the “Private Sector-Community-NGO” linkages shall be encouraged and promoted for liquid and solid waste management. The concerned government agencies shall identify good projects and assign roles and responsibilities to them through consultations and promotion.

Capacity Building

Many local government officials and sanitation workers, particularly in rural and underserved areas, currently lack the technical expertise necessary to manage sanitation projects efficiently. The policy calls for a comprehensive capacity building mechanism to address these gaps, focusing on continuous learning and the adaptation of new skills. Training programmes will be developed to cover sanitation management, hygiene promotion, and the maintenance of decentralized systems, while also promoting peer learning and knowledge-sharing platforms to facilitate the exchange of best practices. The Rural Development Academy (RDA), under the Local Government of Balochistan, will play a pivotal role in this effort. Equipped with the necessary resources, the RDA will roll out the sanitation policy by developing a human resource strategy aimed at improving systems across the province. Additionally, successful sanitation projects implemented in the province will be scaled up and presented as models of good practice to government officials, elected representatives, staff of the LGRDD, and community activists. The RDA will collaborate with the PHED, WASA Quetta, and private sector training organizations where needed, ensuring that all stakeholders gain the necessary skills to manage sanitation systems sustainably. Through this multi-faceted approach to capacity building, Balochistan aims to cultivate a cadre of skilled professionals capable of ensuring the long-term success of sanitation initiatives across the province.

Innovation and Technology and Research

The policy will recognize the need for innovative and sustainable technological solutions to address the diverse sanitation challenges across the province. Given the region's varying geographic and socio-economic conditions, the government will adopt alternative technical and engineering standards to ensure that sanitation infrastructure is both affordable and sustainable. This includes developing low-cost, context-specific designs that account for local water availability and other environmental factors. Capacity building will be crucial in driving these innovations forward. Stakeholders from the public and private sectors, as well as civil society organizations, will be trained and supported to explore and implement a wide range of environmental sanitation technologies. By learning from the best practices already demonstrated by NGOs and other organizations, Balochistan will leverage existing knowledge to scale up these solutions' province-wide.

In addition, the policy emphasizes the need for continuous research and development (R&D) to generate evidence-based approaches and enhance access to sanitation. A research-working group will be formed, headed by an academic institution of Balochistan, to identify key research priorities. This group will collaborate with Pakistan's leading research institutes to develop cost-effective and appropriate technologies tailored for Balochistan. This partnership will not only help identify solutions to local sanitation challenges but also ensure that the province remains at the forefront of sanitation innovation.

Sustainable Waste Management

Solid-Waste Management

Effective waste management is an integral component of this policy, with a focus on establishing sustainable and environmentally friendly practices across the province. A separate solid-waste policy for Balochistan shall be developed. The Environmental Protection Department (EPD) will have its role expanded and strengthened, supported by a clear regulatory framework to guide waste management efforts led by the government councils or private sector. In collaboration with the private sector, the government will explore, test, and implement various waste management and recycling methods to ensure environmentally sound practices. Commercial entities, including shops, departmental stores, offices, and restaurants, will be required to install appropriate waste storage facilities and coordinate with local authorities or private sector partners for the proper transportation and disposal of waste. The aim is to ensure that waste is managed efficiently from its point of generation to final disposal. In addition, proper systems for solid waste management will be established by the relevant government agencies, ensuring that adequate staff, equipment, and vehicles are available to manage waste collection and disposal. Designated and properly designed dumping and landfill sites will be developed to ensure safe and environmentally responsible waste disposal.

Hospital and Industrial Waste Management

Managing hospital waste is critical for safeguarding public health and the environment. Under this Policy, new regulations will be developed to strengthen the disposal and management of hazardous hospital waste. The Health Department will be responsible for implementing standard methods for the safe handling, disposal, and treatment of hospital waste. The EPA will oversee compliance, ensuring that both public and private hospitals follow the Hospital Waste Management Rules 2005. Regular inspections and monitoring will be carried out to guarantee adherence to these regulations. In addition, a provincial review of the existing hospital waste management rules will be conducted to identify gaps and introduce new regulations where necessary. This will ensure that hospital waste management practices remain up to date and effective in addressing emerging health risks.

Balochistan's growing industrial sector, while crucial to economic development, presents significant environmental challenges, particularly in the management of industrial waste. Industries such as mining, manufacturing, and small-scale production generate substantial volumes of solid and liquid waste, often containing hazardous materials that pose risks to public health and the environment. The improper disposal of industrial waste contributes to water, air, and soil pollution, with potential long-term damage to ecosystems and communities, particularly in urban and peri-urban areas. The province currently lacks an effective regulatory framework to ensure the safe treatment, disposal, and monitoring of industrial waste. As a result, untreated industrial effluents often enter natural water bodies or are disposed of improperly, leading to contamination of drinking water sources and agricultural lands. The policy calls for enforcing strict compliances of NEQS ensuring industries treat waste before discharge. Mandatory installation of Effluent Treatment Plants (ETPs), or participation in Common Effluent Treatment Plants (CETPs) for industrial clusters, will be essential. The EPD will monitor compliance, with penalties for non-compliance. PPPs should be encouraged to improve waste treatment infrastructure, while capacity-building programmes will educate stakeholders on best practices and innovative waste management solutions. Regular reporting and monitoring mechanisms will ensure transparency, and the Polluter Pays Principle (PPP) will hold industries accountable for environmental harm, motivating them to adopt cleaner production processes.

Liquid Waste Management

The link between water quality and sanitation is critical in Balochistan, where water scarcity exacerbates the challenges of providing clean and safe sanitation services. Poor sanitation practices, such as the uncontrolled discharge of untreated wastewater, have resulted in widespread water contamination, particularly in urban areas. This Policy will emphasize the need for effective and sustainable solutions for

liquid waste management across the province. Simple yet effective steps will be introduced for the primary treatment of liquid waste, such as the use of septic tanks with anaerobic baffle reactor (ABR), community-level sewerage treatment units (STU), and other anaerobic treatment methods. These solutions are cost-effective and adaptable to local conditions, making them suitable for both rural and urban settings. For secondary treatment, more advanced technologies like oxidation ponds, waste stabilization ponds, and constructed wetlands will be explored. These systems will be designed to meet biological treatment standards while being resource-efficient and environmentally friendly.

In addition, minimum sewage treatment facilities will be properly designed and constructed to ensure compliance with National Environmental Quality Standards (NEQS). The central treatment plant will be maintained to ensure the effluent produced adheres to national guidelines, safeguarding public health and the environment. WASA Quetta will play a leading role in piloting innovative liquid waste management approaches for the city of Quetta. These learnings and innovations will then be replicated in other urban centres across Balochistan to ensure a province-wide improvement in wastewater management.

Social Behavioural Change and Information Education and Communication

Achieving sustained improvements in sanitation, particularly in rural areas, requires a comprehensive approach that not only focuses on infrastructure but also on behavioural change. Open defecation, unimproved sanitation, and poor hygiene practices are prevalent across the province, primarily due to limited awareness of the associated health risks and entrenched cultural norms. To address these issues, the Balochistan Sanitation Policy (BSP) places significant emphasis on Information, Education, and Communication (IEC) campaigns designed to raise public awareness and foster long-term behavioural change. The following shall be key approaches for awareness raising, education and training:

- Partnering with mass media, the government will promote sanitation-related messages focused on health, civic responsibility, and education. These will target all demographics, especially marginalized communities.
- Ulema and Khateebis will be incentivized to advocate for sanitation during religious gatherings. Their influence will help embed hygiene practices into daily life.
- Preventive healthcare information will be shared at the grassroots level, engaging community leaders, women, and children to highlight the health risks associated with poor sanitation.
- Sanitation education will be integrated into school curricula, teaching students the importance of toilets, waste management, and hygiene. Sanitation clubs will be established to further involve students in maintaining hygiene practices.
- Campaigns will highlight the dangers of polythene bags, educating the public on their negative impact on the sanitation system and encouraging sustainable alternatives.
- Targeted education initiatives, using social marketing techniques, will focus on promoting demand for basic sanitation services and encouraging communities to take ownership of public sanitation facilities.
- Local groups will be encouraged to manage and maintain sanitation facilities, fostering a sense of responsibility and ownership.

Disaster Risk Management and Climate Change

Balochistan is prone to frequent natural and climate induced disasters, such as earthquakes, floods, heatwaves and droughts, which can disrupt sanitation services and exacerbate public health risks. In the aftermath of disasters, the breakdown of sanitation systems can lead to outbreaks of waterborne diseases, further compounding the impacts of the disaster. Integrating sanitation into disaster risk reduction and emergency preparedness plans is essential. Short-term actions include developing emergency sanitation

protocols and ensuring that critical infrastructure is disaster and climate resilient. Over the long term, the strategy aims to build the capacity of local authorities and communities to manage sanitation during emergencies, ensuring that sanitation services are maintained even in the face of crisis. By making sanitation systems more resilient to climate change and disasters, Balochistan can protect public health and reduce the vulnerability of its communities.

Monitoring and Evaluation

The sanitation initiatives in Balochistan often face the challenge of poor planning and a lack of consistent monitoring. A strong emphasis will be placed on institutionalizing data-driven decision-making and ensuring real-time monitoring of projects. By setting up a robust Monitoring and Evaluation (M&E) framework, the province will be better equipped to track sanitation progress, particularly in line with SDG targets. This framework will also enable local governments to quickly identify gaps and make timely adjustments based on reliable, up-to-date data. Special attention will be paid to gender-disaggregated data collection to ensure the unique needs of women, children, persons with disabilities, and other vulnerable groups are fully met. Decentralizing the planning process will further empower local communities, allowing them to participate actively in decision-making. This ensures that sanitation projects are responsive to the specific needs of these communities, leading to more sustainable and impactful outcomes.

The suggested comprehensive M&E framework will be implemented by a four-tiered monitoring approach shall be adopted:

- Monitoring at Union Council level
- Monitoring at District level
- Monitoring at Sub Divisional level (Rural & Urban)
- Monitoring at Provincial level

A proper MIS system shall be established at district level in the office of Assistant Director, which shall retrieve the data of urban and rural councils and transmit the same to the provincial MIS system. Provincial Government shall develop unified and reconciled WATSAN indicators, which are acceptable to international standards. Incorporating these reconciled indicators to existing systems (like MICS, PSLM etc.) will be a priority. Additionally, an annual sector review and evaluation/sector status reports will be generated. An institutional hub for sanitation shall be established at LGRDD for tracking progress in implementation of the policy and attaining annual targets.

INSTITUTIONAL ARRANGEMENTS AND GOVERNANCE

Provincial Sanitation Steering Committee

All concerned provincial government departments, public agencies, and autonomous bodies in accordance with the guidelines shall follow the Sanitation policy, principles and measures spelt out in this document. Communities, NGOs, and the private sector will be supported and encouraged to undertake initiatives within the provisions of the Sanitation Policy.

At provincial level, there shall be a Provincial Sanitation Steering Committee, which will examine the sanitation policy, and after approval of the same will submit it to the provincial cabinet for final approval. This committee will also be responsible for steering the execution of the provincial Sanitation Policy and will be responsible to make necessary changes and redressals as challenges arise with approval from relevant authorities. This Committee shall comprise of the following members:

a) Additional Chief Secretary	Chairman
b) Secretary LGRDD	Member/Secretary
c) Secretary Health	Member
d) Secretary Education	Member
e) Secretary Environment	Member
f) Secretary Social Welfare	Member
g) Secretary Women Development	Member
h) Secretary P&D	Member
i) Secretary Finance	Member
j) Secretary PHED	Member
k) Managing Director WASA	Member
l) WASH Specialist UNICEF	Member
m) Red Cross	Member
n) International Organization of Migration	Member
o) Civil Society	Member

Provincial Sanitation Cell

After approval of the Sanitation Policy, the Provincial Government shall form a Provincial Sanitation Cell that shall consist of dedicated professionals based at DGLG office to provide necessary administrative, monitoring, and supervisory support. The cell shall comprise of the following members:

a) Director General Local Government	Chairman
b) Secretary LGRDD	Member
c) Divisional Directors, Local Government	Member
d) Managing Director WASA	Member
e) Representative of PHED	Member
f) WASH Specialist UNICEF	Member
g) 2 Representatives from NGOs	Member
h) 3 Representatives from Civil Society	Member

The Sanitation Focal Person of Local Government shall provide the secretarial support, and LGRDD would deploy necessary staff for effective implementation of the action plan being developed for the Provincial Sanitation Policy.

ROLES AND RESPONSIBILITIES OF STAKEHOLDERS

Role of Provincial Government

The Provincial Government shall facilitate the effective implementation of the Provincial Sanitation Policy by creating an enabling environment. For this purpose, the Government shall assure necessary allocation of funds and placement of essential human resources to achieve the desired results. The Government will examine and will execute the recommendations of the Provincial Sanitation Steering Committee. The P&D and LGRDD of Balochistan shall steer the implementation process in close coordination and collaboration with other departments to overcome any duplication, overlaps and contradictions.

During emergencies, the Provincial Government shall coordinate the deployment of temporary sanitation infrastructure, facilitate the provision of safe drinking water, and promote emergency hygiene practices. It shall oversee inter-departmental collaboration and ensure the mobilization of resources to manage sanitation-related public health risks effectively.

Active support from LGRDD, PHED, Environment, Health and Education departments shall be sought to institutionalize the sanitation across the province and integrate the activities in their annual development programmes and budgetary allocations. These departments shall be part of Provincial Steering Committee to guide policy formulation, steer implementation, set standards, and for coordination and M&E.

Role of LGRDD, PHED, Environment, Health and Education Departments

Local Government and Rural Development

The LGRDD shall promote and implement sanitation, hygiene, and waste management initiatives as per guidelines agreed and approved by the provincial government both in urban as well as rural areas. In addition to designing new projects for sanitation, LGRDD will ensure the placement of O&M mechanisms either through local communities in rural areas or local councils in urban settings. In Quetta, WASA shall be responsible for execution and O&M. Furthermore, the LGRDD may ensure a more effective system of service delivery and complaint redressal, development of efficient waste management systems and sanitary landfill sites etc. Provincial, district, subdivision and UC municipal committees shall identify the NGOs, CBOs and private sector and adopt their good practices and replicate these practices in other locations within their jurisdiction through the formation of stakeholder partnerships.

During emergencies, the LGRDD shall coordinate the deployment of temporary sanitation infrastructure, ensure safe waste management practices, and mobilize local communities for effective sanitation solutions.

Public Health Engineering (PHED)

The PHED shall provide technical assistance to LGRDD in designing the complex and large sewerage and drainage schemes in addition to identifying cost effective technical and innovative solutions like construction of wetlands, etc.

During emergencies, PHED shall lead efforts to deploy cost-effective, temporary drainage solutions and innovative wastewater management systems, including wetlands, in affected areas.

Education Department

The Education Department shall lead on the inclusion of sanitation and hygiene materials in the curriculum, training of schoolteachers in environmental hygiene and creation of sanitation clubs in schools along with construction of accessible drinking water and latrine facilities.

During emergencies, the department shall facilitate the establishment of temporary sanitation and hygiene facilities, not only for schools but also for the surrounding local communities in affected areas. It shall coordinate with other departments to provide emergency access to safe drinking water, handwashing stations, and latrines. Additionally, the department shall mobilize school sanitation clubs and trained personnel to support community awareness campaigns on maintaining hygiene during crises.

Health Department

The Health Department shall facilitate training of primary health care workers in environmental hygiene and construction of latrines with reporting of sanitation related diseases from each tehsil to understand the burden and issue timely alerts. It shall also collaborate for preparation and implementation of hospital waste management rules and practices.

During emergencies, it shall oversee health surveillance, manage disease prevention campaigns, and issue timely alerts about sanitation-related health risks. The department shall collaborate in setting up temporary sanitation solutions to support affected populations.

Environment Department

The Environment Department shall support in the implementation of National Environment Standards specifically in relation to waste management and environmental sanitation. It shall provide guidance in preparing the hospital waste management rules and waste recycling opportunities in the province.

Private Sector

The private sector shall be actively engaged either through direct investments in the sanitation and waste management sector or mobilizing them for corporate social responsibility for safe and sustainable environmental sanitation. The private sector industry shall be facilitated in developing effective sanitation marketing for low-cost solutions in major urban hubs of the province.

NGOs and CBOs

The NGOs and local community-based organizations shall be engaged as partners for creating awareness and mobilizing the communities to construct latrines, understand component sharing and adopt best environmental sanitation and hygiene practices. These organizations shall be engaged in preparing, designing, and implementing small-scale community sanitation projects with strong social mobilization approaches. Two NGOs shall be part of the Provincial Sanitation Cell to provide policy guidance, facilitation in M&E and ensuring the voices of citizens in the policy implementation process. The local community organizations shall be trained in PATS and participatory planning and monitoring of community sanitation projects.

Development partners

Development partners, including international financial institutions, donor agencies, and technical support organizations, shall be engaged to provide strategic guidance, capacity building, and financial investment for sustainable sanitation initiatives. Their role shall emphasize technical support for system design, policy development, and sector strengthening rather than direct service delivery. Collaboration with these partners shall also enhance innovation, resource mobilization, and long-term sustainability of sanitation services.

Community Responsibilities

The communities shall be encouraged to maintain a safe and pleasant physical environment in their settlements, participate in the provision of sanitation infrastructure and its management and manage the disposal of solid waste at the neighbourhood level through community mobilization, public consultation, and media campaigns. The mobilization process shall focus on raising awareness among women.

During emergencies, communities shall actively contribute to setting up temporary sanitation facilities and waste management systems. They will support efforts to maintain cleanliness, reduce disease transmission, and educate local residents on hygiene practices.

Individual Households

Individual households shall be encouraged to build latrines, keep the inside and surroundings of their property clean and not to dispose waste in the streets, storm water drains and public spaces. They will also be encouraged to cooperate with the governmental and non-governmental agencies working in sanitation and with their neighbours to form community organizations that can promote sanitation related programmes and projects.

In emergencies, households shall build and maintain temporary latrines, ensure cleanliness around their homes, and support local sanitation efforts.

Role of Media

The government shall encourage the electronic and print media to promote sanitation related messages in their programmes. It shall also encourage the print media in publishing news and articles to make people aware of sanitation related issues and motivate them to improve sanitation and hygiene practices in their houses, neighbourhoods, and settlements.

During emergencies, the media shall play a critical role in disseminating urgent sanitation-related information, such as hygiene practices, waste management solutions, and emergency sanitation facilities. It shall mobilize communities to take immediate action to protect public health and support government and NGO-led sanitation efforts in crisis situations.

ANNEXURES

Annex 1: District Wise Sanitation Coverage - (Census 2023)

% distribution of household population according to type of toilet facility used by the household, Pakistan Census 2023.

Region/ Districts	SEPARATE TOILET	TYPE OF TOILET			TYPE OF WASHROOM	
		FLUSH TOILET	NON-FLUSH TOILET	NO TOILET	SEPARATE WASHROOM	NO WASHROOM
Balochistan	52%	54%	23%	23%	62%	14%
AWARAN	75%	52%	27%	21%	91%	5%
BARKHAN	23%	29%	16%	55%	37%	33%
CHAGAI	60%	66%	9%	25%	76%	9%
CHAMAN	62%	64%	31%	4%	72%	3%
DERA BUGTI	22%	35%	7%	58%	27%	52%
DUKI	44%	45%	27%	28%	60%	9%
GWADAR	60%	78%	9%	12%	72%	2%
HARNAI	34%	43%	10%	47%	50%	27%
JAFFARABAD	39%	47%	19%	34%	33%	44%
JHAL MAGSI	47%	35%	28%	38%	38%	49%
KACHHI	48%	49%	37%	14%	49%	14%
KALAT	51%	41%	33%	25%	60%	17%
KECH	50%	56%	26%	18%	58%	8%
KHARAN	64%	53%	31%	16%	75%	4%
KHUZDAR	53%	44%	26%	29%	68%	13%
KILLA ABDULLAH	54%	51%	38%	11%	66%	4%
KILLA SAIFULLAH	28%	33%	15%	52%	67%	8%
KOHLU	19%	23%	10%	67%	32%	48%
LASBELA	62%	70%	9%	21%	71%	12%
LORALAI	45%	52%	18%	30%	63%	11%
MASTUNG	63%	68%	25%	7%	71%	4%
MUSAKHEL	28%	27%	20%	53%	42%	34%
NASIRABAD	37%	31%	29%	40%	36%	42%
NUSHKI	69%	69%	21%	9%	73%	4%
PANJGUR	41%	22%	58%	20%	48%	7%
PISHIN	59%	65%	26%	9%	73%	2%
QUETTA	80%	86%	12%	1%	83%	1%
SHERANI	40%	45%	28%	28%	61%	8%
SIBI	58%	66%	22%	11%	57%	14%
SOHBATPUR	33%	34%	16%	50%	30%	56%
SURAB	47%	49%	34%	17%	56%	7%
WASHUK	44%	29%	29%	43%	66%	15%
ZHOB	40%	47%	16%	37%	64%	9%
ZIARAT	38%	48%	11%	41%	67%	8%

Annex 2: Citywide Inclusive Sanitation (CWIS)

Citywide Inclusive Sanitation (CWIS) is an urban sanitation approach focused on ensuring safe, equitable, and sustainable sanitation services for all residents of a city, including vulnerable and marginalized populations. CWIS shifts from the conventional infrastructure-based approach (relying solely on centralized sewer systems) to more diverse, integrated solutions. It emphasizes the **entire sanitation service chain**—from containment to treatment and safe disposal or resource recovery—ensuring that everyone has access to sanitation regardless of socioeconomic status or location.

Principles of CWIS:

- **Inclusivity:** All residents, including those in informal settlements, must have access to sanitation services.
- **Equity:** Ensure affordability and fair access to services, targeting underserved communities.
- **Sustainability:** Use environmentally sound practices to manage wastewater and faecal sludge.
- **Service-oriented:** Shift the focus from infrastructure to reliable & accessible sanitation services.
- **Collaboration:** Involve all stakeholders—governments, service providers, and communities—in planning and operations.
- **Adaptability:** Use different solutions (like sewers, septic tanks, and faecal sludge management) depending on the local context.

CWIS Implementation Framework

- **Institutional Arrangements:** Define clear roles for local governments, utilities, private sector, and community organizations. Establish coordination mechanisms across water, sanitation, and urban planning sectors. Build capacity through training for officials, service providers, and communities.
- **Policy and Regulatory Framework:** Develop inclusive sanitation policies aligned with CWIS principles. Implement health and environmental regulations to ensure safe waste management. Establish monitoring frameworks for service delivery and system performance.
- **Financing Mechanisms and Business Models:** Use a combination of public, private, and donor funds. Provide targeted subsidies to low-income households for sanitation services. Encourage private sector participation through performance-based contracts.
- **Infrastructure and Service Delivery:** Use multiple technologies such as sewer networks, decentralized treatment plants, and on-site systems. Integrate faecal sludge management (FSM) for areas without sewer coverage. Ensure treatment facilities produce safe outputs for reuse or disposal.
- **Monitoring, Evaluation, and Learning:** Develop indicators for tracking service coverage, equity, and environmental impact. Use data-driven insights for continuous improvement. Promote knowledge-sharing across cities and regions.
- **Stakeholder Engagement and Social Inclusion:** Engage local communities, including women and marginalized groups, in planning. Use participatory approaches and behaviour change campaigns to promote sanitation practices. Foster ownership of sanitation systems through community mobilization.

Suggested Tools for CWIS

- **Sanitation Safety Planning (SSP):** Identifies and mitigates health risks along the sanitation service chain.
- **Faecal Sludge Management (FSM):** Focuses on the safe handling of sludge from on-site systems.
- **Performance-based Contracts:** Pay service providers based on delivery outcomes rather than infrastructure installation.

References:

- Bill & Melinda Gates Foundation. (2020). Citywide Inclusive Sanitation: A Call to Action.
- World Bank. (2019). Citywide Inclusive Sanitation: Achieving the Urban Sanitation SDGs through a Systems Approach.
- Water and Sanitation for the Urban Poor (WSUP). (2021). Citywide Inclusive Sanitation Framework for Implementation.
- WHO & UNICEF. (2020). Sanitation Safety Planning: Manual for Safe Use and Disposal of Wastewater and Excreta.

Annex 3: Pakistan Approach to Total Sanitation

In Pakistan, the Community Led Total Sanitation (CLTS) approach was conceived as an entry point, tied to a ‘sanitation ladder’ encompassing four aspects of total sanitation including open defecation free communities, solid waste management, improved drained and sewerage and hygiene promotion to achieve “Total” sanitation. However, CLTS application in Pakistan paid limited attention to certain aspects that did not allow the CLTS approach to attain or sustain the ODF status though it was piloted in many areas across Pakistan. A national level workshop was organized by the Ministry of Environment in 2010 where all provincial/state governments, representatives of the academia and NGOs, CLTS practitioners and the donor agencies participated; and proposed Pakistan’s Approach to CLTS as the basis of future sanitation programming in Pakistan. The following approach has now been finalized in accordance with the recommendations of the workshop.

Integrated Total Sanitation: The Pakistan specific approach seeks to follow the following components for attaining total sanitation:

- a) Sanitation Demand Creation for ODF Communities: through Information, Education and Communications (IEC) Campaign, Community Led Total Sanitation (CLTS), School Led Total Sanitation (SLTS), Marketing of hand washing etc.
- b) Sustaining the Demand through Supply Side Interventions: through “Marketing Sanitation”, supply chain mechanisms, training of masons, construction of environment friendly latrines for demonstration of technical solutions, trainings of sanitation entrepreneurs and sanitation enterprises, facilitation to develop linkages with the microfinance institutions and incentivizing outcomes
- c) Participatory Hygiene Promotion: through IEC material on active health and hygiene key messages, behaviour change communications, usage of mass media campaign and IEC campaigns promoting low-cost appropriate and informed sanitation solutions etc.
- d) Attaining 100% Adequate Drainage and Wastewater treatment

Community Led Total sanitation (CLTS) methodology is an entry point to achieve “total sanitation” and not total sanitation in itself. CLTS is an effective approach for triggering action to change defecation behaviours at the community level and to create demand for improved sanitation facilities. Sanitation, as a whole is an entry point for greater social change and community mobilization. The steps identified under CLTS include:

- a) **Pre-triggering:** selecting community and developing a better-defined sense of community
- b) **Triggering:** educating the community regarding the consequences of living in a faecal contaminated environment until they come to the realization that they are eating, washing in, and drinking each other’s faeces. Some of the triggering activities include defecation area transect, mapping of defecation areas, calculations of faeces and medical expenses, triggering dignity (disgust) and respectv(ignition). The “ignition” captures the moment when the community becomes mobilized to take collective action to stop the ingestion of each other’s faeces and improve their poor sanitation
- c) **Post-triggering:** Once communities typically pledge to improve their sanitation by either becoming open-defecation free or by adopting improved sanitation technologies there is a danger that these pledges do not come to fruition without follow-up work. Follow-up activities include immediate follow-up and encouragement, community action follow-ups i.e., engaging with communities to agree furthering action plans to achieve other sanitation outcomes including external systems, participatory monitoring and indicators setting, verifying and certifying ODF status, celebrations and the monitoring and sustaining of ODF status

- Under the Pakistan Approach to Total Sanitation, key triggers for behaviour change will be understood and compiled and accordingly a country wide communications campaign will be launched to develop a national “culture” or social norm of latrine usage, latrine sustainability and hand washing
- The certification mechanism, to monitor the ODF status at any point in time, will be devised which shall take into account the annual renewal of the commitment for maintaining ODF status
- International and in-country partnerships will be created with key development agencies and organizations to harmonize and coordinate support to federal and provincial governments for conceptualizing and rolling out the large-scale rural sanitation programmes
- Both male and female activists will be identified and trained on sensitizing communities on the adoption of basic sanitation and safe hygiene practices. They will be oriented in their assigned roles and responsibilities and can work on a service against fee for making their assigned area open defecation free. These activists could be further transformed, through imparting trainings, into behaviour change consultants and then into small entrepreneurs and can help expand the capacity of the market to supply services and products
- Capacity development of small entrepreneurs and micro financiers will be supported to develop a range of technologies and options for environmental sanitation.
- An enabling environment will be developed at the local, provincial and the national level through strong evidence-based advocacy to ensure that programmatic approaches and the sanitation development initiatives are well understood, supported, financed, and contribute to long term sustainability
- The communities will be sensitized on sanitation through hygiene promotion messages through locally designed IEC material. The messages imparted will be reinforced from time to time

Annex 4: Detailed Action Plan

Specific Objective	Key Activities	Timeframe	Responsible Department	Proposed Cost
FINANCIAL ARRANGEMENTS Ensure sustainable financing for sanitation services.	- Develop mechanisms of securing funding from provincial and federal governments. - Develop funding proposals and agreement with donors - Work with finance department for coding of sanitation expenditures	Short-term	Finance Dept, LGRDD, P&D Dept	10 million Workshops, consultancy fee for papers for policy reforms and engagement
	- Prepare the concept paper for cost recovery - Pilot and test cost-recovery mechanisms e.g. tariffs for sanitation services in selected cities	Medium-term	Finance Dept, LGRDD	Rs 15 million (six urban areas with Rs 2.5 million for each)
	- Establish sustainable financial frameworks for sanitation services in municipalities.	Long-term	Finance Dept, Municipal Governments	Rs 20 million (four municipalities- 5 million each)
PROGRAMME APPROACH Develop inclusive and climate-resilient sanitation systems.	- Pilot Citywide Inclusive Sanitation (CWIS) in 10% of urban areas. - Implement WASH Social Mobilization Strategy in 30% villages - Integrate sanitation and hygiene solutions into disaster-prone areas (flood resilience focus).	Short-term	LGRDD, PHED, Urban Planning Dept	Rs 100 million for CWIS (20 million each for five cities) and Rs 60 million for WASH SM (2 million per tehsil - 10 each years- 30 in total)
	- Scale Up Citywide Inclusive Sanitation (CWIS) in 30% of urban areas. - Implement WASH Social Mobilization Strategy in additional 30% villages of Balochistan - Continue to integrate sanitation and hygiene solutions into disaster-prone areas (flood resilience focus).	Medium-term	LGRDD, PHED, Local Governments	Rs 300 million for CWIS (20 million each for 15 cities) and Rs 120 million for WASH SM (2 million per tehsil/sub division - 20 each years- 60 in total)
	- Scale Up Citywide Inclusive Sanitation (CWIS) in remaining 40% of urban areas. - Implement WASH Social Mobilization Strategy in remaining 40% villages of Balochistan - Continue to integrate sanitation and hygiene solutions into disaster-prone areas (flood resilience focus).	Long-term	Disaster Management Dept, LGRDD	Rs 400 million for CWIS (20 million each for 20 cities) and Rs 150 million for WASH SM (2 million per tehsil/sub division - 25 each years- 75 in total)
INFRASTRUCTURE DEVELOPMENT Build resilient and eco-friendly sanitation infrastructure.	- Conduct GIS mapping of underserved areas and identify infrastructure gaps. - Develop the projects and allocation of funds as per infrastructure gaps.	Short-term	LGRDD, PHED, Urban Planning Dept	Rs 350 million for GIS mapping (Rs 10 million for each district)
	- Mobilize the communities to upgrade eco-friendly sanitation systems i.e. septic tanks, low-cost decentralized sewage treatment plants	Medium-term	PHED, Local Govs, Environment Dept	Rs 170 million- average 10 per district @ Rs.5 million for each unit)

Specific Objective	Key Activities	Timeframe	Responsible Department	Proposed Cost
LEGISLATION/ STATUTORY UPDATE Update and harmonize legal frameworks for sanitation governance.	- Continue the upgrading of sanitation infrastructure in climate-vulnerable regions (flood-prone areas).	Long-term	LGRDD, PHED, Environment Dept	Rs 340 million average 20 per district @ Rs 0.5 million for each unit)
	- Review and upgrade existing sanitation related legislations	Short-term	LGRDD, Law Dept	Rs 20 million
	- Draft and enforce updated laws to enhance sanitation service delivery and waste management standards including role of the private sector			(Consultancy fee, and workshops)
	- Enforce revised regulations for municipal, hospital, and industrial waste management in all districts of Balochistan	Medium-term	LGRDD, Law Dept, PHED	Rs 20 million (Consultancy fee, and workshops)
GENDER EQUITY Ensure inclusive and gender-sensitive sanitation services.	- Continue periodic review and sustained implementation of regulations and standards of climate resilient WASH.	Long-term	Environment Dept, Health Dept, Industrial Partners	Rs 20 million (Consultancy fee, and workshops)
	- Mobilize women's groups as a part of community institutions for sanitation education and hygiene promotion in rural and urban areas.	Short-term	Social Welfare Dept, LGRDD, NGOs	Rs 100 million. (Develop guidelines, pilot projects, capacity development. Rs 20 million each for five districts)
	- Develop and pilot the guidelines for gender and inclusive sanitation infrastructure and services			
	- Integrate the monitoring of gender -segregated data for sanitation access and health outcome			
PUBLIC-PRIVATE PARTNERSHIPS Encourage private sector involvement in sanitation services.	- Scale up the implementation of inclusive and gender-sensitive sanitation facilities in schools, public spaces, and healthcare centres.	Medium-term	Education Dept, PHED, Health Dept	Rs 720 million (20 million for each district)
	- Use gender segregated data to make informed decision making around inclusion and access to all for safe sanitation.	Long-term	LGRDD, P&D Dept, NGOs	Rs 10 million for the system upgrading.
	- Update the existing legal frameworks and incentives for PPPs specifically for sanitation infrastructure and services	Short-term	LGRDD, Law Dept, Private Sector	Rs 10 million Consultancy fee
	- Initiate the engagement of private sector in liquid waste management			
CAPACITY BUILDING Strengthen technical	- Promote private sector investment and services in waste management facilities and sewage treatment plants especially faecal sludge management	Medium-term	LGRDD, Environment Dept, Private Sector	Rs 100 million as matching grant for public- private partnerships
	- Expand PPPs for long-term operation and maintenance (O&M) of sanitation systems.	Long-term	Private Sector, LGRDD, Local Govs	Rs 1000 million as matching grant
	- Strengthen Balochistan Rural Development Academy for climate resilient sanitation courses	Short-term	LGRDD, PHED, NGOs	Rs 50 million including upgrading of RDA and development online and offline courses

Specific Objective	Key Activities	Timeframe	Responsible Department	Proposed Cost
and institutional capacity for sanitation.	- Develop specific training courses and guidelines of CWIS, Service Delivery Models, etc.			
	- Conduct training for local governments, PHED, and sanitation workers on infrastructure maintenance.	Medium-term	LGRDD, RDA, PHED	Rs 100 million
	- Develop advanced training programmes on O&M of sanitation facilities and water treatment systems.			(Rs 1 million per annum for each district training courses of its staff)
	- Establish ongoing capacity-building initiatives and peer learning networks for local sanitation teams.	Long-term	LGRDD, RDA, Education Dept	Rs 300 million (Rs 3 million per annum for each district training courses of its staff)
INNOVATION AND TECHNOLOGY Promote innovative, eco-friendly, and affordable sanitation technology.	- Research and pilot sustainable technologies (e.g., eco-friendly toilets, low-cost wastewater systems).	Short-term	R&D Institutions, Private Sector, LGRDD	Rs 100 million research grants to Academia and Private Sector
	- Scale up context-specific and affordable sanitation technologies in both rural and urban settings.	Medium-term	R&D Institutions, LGRDD, Private Sector	Rs 300 million for scaling up research findings
	- Implement smart sanitation technologies and monitoring systems for improved service delivery.	Long-term	R&D Institutions, IT Dept, LGRDD	Rs 1000 million (Rs 30 million for each district)
	- Establish solid waste management systems in urban centres with recycling initiatives.	Short-term	Environment Dept, Local Govs, PHED	Rs 150 million
WASTE MANAGEMENT AND SANITATION Improve solid and liquid waste management systems across the province.	- Develop landfill sites and waste collection networks in peri-urban and rural areas.			(Rs 30 million each for five urban areas)
	- Expand solid-waste management to all urban areas of Balochistan	Medium-term	Local Govs, PHED, Environment Dept	Rs 1000 million (Rs 25 million each for urban areas and Rs 5 million each for rural areas)
	- Pilot rural solid waste management services in selected places			
	- Scale up solid waste recycling programmes and integrate wastewater treatment in all cities and rural areas of Balochistan	Long-term	PHED, Environment Dept, Local Govs	Rs 2000 million - all urban areas and rural areas.
HOSPITAL WASTE MANAGEMENT Ensure safe and sustainable hospital waste disposal systems.	- Revise, update and enforce hospital waste management protocols.	Short-term	Health Dept, Environment Dept, Hospital Management	Rs 5 million consultancy fee
	- Construct waste treatment units at major hospitals for safe disposal of hazardous waste.	Medium-term	Health Dept, Hospital Admin, Private Partners	Rs 250 million (Rs 5 million each for 50 urban areas)
	- Enforce hospital waste management practices in all private hospitals of the cities.			
	- Implement and scale up hospital waste recycling and disposal systems in all urban and rural areas.	Long-term	Health Dept, Private Sector	Rs 500 million- (Rs 2 million each for 250 facilities)

Specific Objective	Key Activities	Timeframe	Responsible Department	Proposed Cost
INDUSTRIAL WASTE MANAGEMENT Improve industrial waste treatment and disposal systems.	- Develop specific guidelines for industrial waste treatment and disposal in consultation with private sector	Short-term	Environment Dept, Industry Partners, LGRDD	Rs 5 million consultancy free
	- Enforce waste treatment protocols and pilot the treatment plants near industrial zones.	Medium-term	Environment Dept, Industrial Partners	Rs 10 million on enforcement structures
	- Scale up and implement sustainable industrial waste recycling and management systems.	Long-term	Environment Dept, Industrial Partners	Rs 20 million for enforcement and reporting
LIQUID WASTE MANAGEMENT Ensure safe management of liquid waste across urban and rural areas.	- Identify liquid waste treatment gaps and prioritize areas for development	Short-term	LGRDD, PHED, Local Govs, WASA	Rs 200 million
	- Develop faecal flow diagram of the main cities to determine the scale of sewage to be treated			(Rs 40 million each for five urban centres)
	- Develop liquid waste treatment plants in high-risk areas including faecal flow diagram of all cities and peri urban areas	Medium-term	WASA, Local Govs, PHED, Environment Dept	Rs 2000 million (Rs 40 million each for 50 cities)
DISASTER RISK REDUCTION (DRR) Integrate sanitation with DRR to build resilience to natural disasters.	- Implement liquid waste recycling for reuse in agriculture and other sectors.	Long-term	WASA, Environment Dept, Agriculture Dept	Rs 2000 million (Rs 40 million each for 50 cities)
	- Develop guidelines and procedures for sanitation infrastructure resilient to floods and other natural disasters.	Short-term	Disaster Management Dept, LGRDD, Local Govs	Rs 340 million (Rs 10 million each district)
	- Pilot early warning systems for sanitation infrastructure in disaster-prone areas.			
BEHAVIOURAL CHANGE AND IEC Promote sustainable hygiene and sanitation behaviour through education.	- Scale up and implement early warning systems and procedures for sanitation infrastructure in disaster-prone areas.	Medium-term	LGRDD, IT Dept, Disaster Management Dept	Rs 720 million (Rs 20 million for each district)
	- Ensure all new sanitation infrastructure is resilient to withstand extreme weather events.	Long-term	PHED, Disaster Management, Environment Dept	Rs 720 million (Rs 20 million for each district)
	- Develop and pilot guidelines for implementation of BCC and IEC strategies under WASH social mobilization strategy	Short-term	Health Dept, Education Dept, Media	Rs 1000 million (Rs one million per year per district)
	- Launch mass media campaigns to promote handwashing, safe sanitation practices, and hygiene education.			
	- Scale up WASH Social Mobilization Strategy in 60% areas of Balochistan	Medium-term	Education Dept, NGOs	Rs 1500 million (Rs 1.5 million per year per district)
	- Implement school-led sanitation and hygiene programmes in schools across Balochistan.			

Specific Objective	Key Activities	Timeframe	Responsible Department	Proposed Cost
	- Cover all remaining rural and urban areas with WASH Social Mobilization Strategy - Establish WASH clubs in schools and communities for continuous IEC efforts.	Long-term	Health Dept, NGOs, Education Dept	Rs 2000 million (Rs 2 million per year per district)
COMPLAINT REDRESSAL AND PUBLIC PARTICIPATION Ensure citizen participation and effective complaint redressal mechanisms.	- Establish complaint redressal systems district, sub district, UC and city levels for sanitation services.	Short-term	Local Govs, LGRDD, Q-WASA- Social Welfare Dept	Rs 100 million- three SM units- Rs 3 million per year for three units
	- Develop feedback loops for citizens to engage in sanitation projects and decisions under WASH Social Mobilization Strategy	Medium-term	Local Govs, LGRDD	Rs 150 million - three SM Units for RS 4 million per year for three units
	- Use online and offline tools for effective complaint redressal and public participation			
	- Institutionalize public participation in sanitation project design, monitoring, and evaluation by using both online and offline approaches - Register all CBOs and link them with online complain redressal mechanisms for effective record keeping and response mechanisms	Long-term	LGRDD, PHED, Q-WASA, Social Welfare, P&D Dept	Rs 200 million - three SM Units for RS 5 million per year for three units.
MONITORING AND EVALUATION (M&E) Ensure effective tracking and accountability of sanitation services.	- Develop M&E frameworks for tracking sanitation and hygiene progress including gender-disaggregated and specific groups data.	Short-term	LGRDD, P&D Dept, NGOs	Rs 10 million System development
	- Implement real-time monitoring tools for sanitation services and waste management across districts.	Medium-term	LGRDD, IT Dept, Local Govs	Rs 50 million- Rs 1.5 million each years' for data collection and reporting
	- Scale up the real time monitoring of sanitation from all rural areas	Long-term	LGRDD, P&D Dept, NGOs, Local Govs	Rs 100 million. Rs 30 million each years'
	- Conduct annual sector reviews and public reporting on sanitation progress and outcomes.			

OVERALL TOTAL INFRASTRUCTURE COSTS FOR ACHEIVING SDG of Sanitation in Balochistan 2025-2035- PKRs

Description	Rural	Urban	Total
Total Capex Costs for Sewerage as per SDG Costing Tool	45,379,005,457	19,453,446,614	64,832,452,072
Total Capex Costs for FSM as per SDG	29,276,777,714	6,275,305,359	35,552,083,074
Total Operational Costs for Sewerage as per SDG	15,535,074,239	2,947,188,140	18,482,262,379
Total Operational Costs for FSM as per SDG	4,391,516,657	1,882,591,608	6,274,108,265
Annual Total Maintenance Costs for Sewerage	1,331,577,792	757,848,379	2,089,426,171
Annual Total Mainenance Costs for FSM	1,463,838,886	903,643,972	2,367,482,857
Total Needs for SDG Sewerage 10 Years	62,245,657,488	23,158,483,133	85,404,140,622
Total Needs for SDG Feacal Slusge-10 years'	35,132,133,257	9,061,540,939	44,193,674,196
Total Needs Per year- Sewerage	6,224,565,749	2,315,848,313	8,540,414,062
Total Needs Per year- Fecal Sludge	3,513,213,326	906,154,094	4,419,367,420
Action Plan Cost per year			2,005,500,000
Total Costs Per Year - Maxiumum	6,224,565,749	2,315,848,313	10,545,914,062
Total Cost Per Year- Minimum	3,513,213,326	906,154,094	6,424,867,420

SUMMARY OF THE ACTION PLAN COSTS

Key Programme Areas	Short Term	Medium Term	Long Term	Total
Financial Arrangement s	10,000,000	15,000,000	20,000,000	45,000,000
Programme Approach	100,000,000	300,000,000	400,000,000	800,000,000
Infrastructur Development	350,000,000	350,000,000	350,000,000	1,050,000,000
Legislation / Statuory Update	20,000,000	20,000,000	20,000,000	60,000,000
Gender Equity	100,000,000	720,000,000	10,000,000	830,000,000
Public Private Partnerships	10,000,000	100,000,000	1,000,000,000	1,110,000,000
Capacity Development	50,000,000	100,000,000	300,000,000	450,000,000
Innvoation and Technology	100,000,000	300,000,000	1,000,000,000	1,400,000,000
Waste Management	150,000,000	1,000,000,000	2,000,000,000	3,150,000,000
Hspital Waste Management	5,000,000	250,000,000	500,000,000	755,000,000
Industrial Waste Management	5,000,000	10,000,000	20,000,000	35,000,000
Liquid Waste Management	200,000,000	2,000,000,000	2,000,000,000	4,200,000,000
Diasste Risk Reducation	340,000,000	720,000,000	720,000,000	1,060,000,000
Behaviour Change &IEC	1,000,000,000	1,500,000,000	2,000,000,000	4,500,000,000
Complaint Rederessal and Participation	100,000,000	150,000,000	200,000,000	450,000,000
Monitoring and Evaluation	10,000,000	50,000,000	100,000,000	160,000,000
Total Action Plan	2,550,000,000	7,585,000,000	10,640,000,000	20,055,000,000

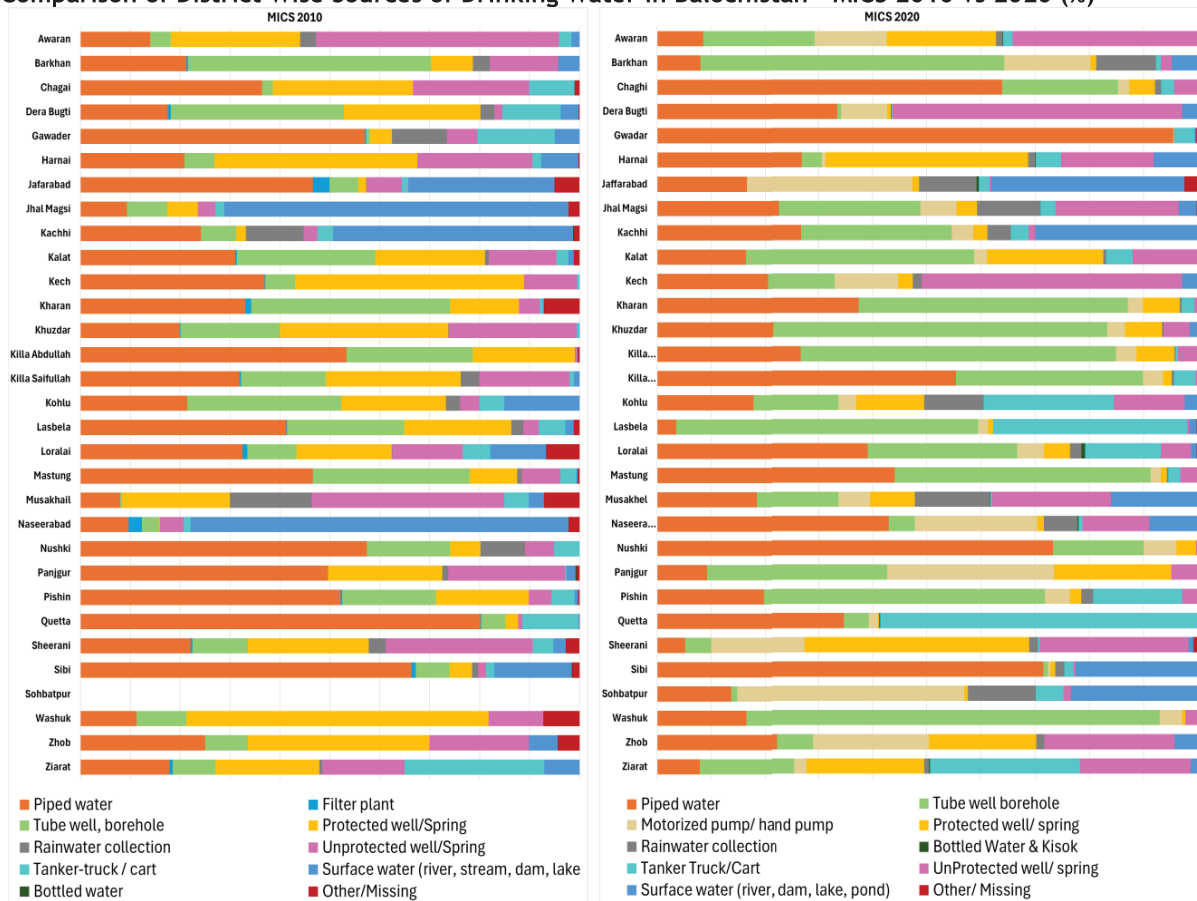
SAFELY MANGED SANITATION

DISTRICT	households (as per Census 2023)	Average Population Growth 2023	Estimated households 2025	Baseline %age	Household Served	Estimated Households 2035	Pop gap to meet access by 2035	Mean cost per HH at current rates	Total Cost to meet gap at current rates (2025-35)	Mean Annual Cost to meet gap at current rates (2025-35)	Total Cost to meet gap with 8% inflation (2025-35)	Mean Annual Cost to meet gap at 8% inflation (2025-35)
Awaran	27,796	6.6%	29,642	22.6%	6,699	56,377	49,678	150,000	7,451,733,774	745,173,377	16,087,734,317	1,608,773,432
Barkhan	23,053	3.5%	23,862	25.1%	5,989	33,692	27,703	150,000	4,155,460,099	415,546,010	8,971,326,683	897,132,668
Chagai	38,213	2.9%	39,333	33.8%	13,294	52,502	39,207	150,000	5,881,080,474	588,108,047	12,696,811,646	1,269,681,165
Chaman	61,915	1.2%	62,646	0.0%	-	70,443	70,443	150,000	10,566,436,857	1,056,643,686	22,812,144,662	2,281,214,466
Dera bugti	62,267	2.1%	63,593	34.9%	22,194	78,514	56,319	150,000	8,447,923,340	844,792,334	18,238,432,873	1,823,843,287
Duki	43,059	5.0%	45,221	0.0%	-	73,800	73,800	150,000	11,069,993,149	1,106,999,315	23,899,284,928	2,389,928,493
Gwadar	50,357	2.6%	51,646	81.6%	42,143	66,499	24,356	150,000	3,653,428,450	365,342,845	7,887,478,006	788,747,801
Harnai	16,393	4.7%	17,160	15.9%	2,728	27,112	24,383	150,000	3,657,508,217	365,750,822	7,896,285,918	789,628,592
Jaffarabad	81,562	2.5%	83,568	29.6%	24,736	106,558	81,822	150,000	12,273,249,888	1,227,324,989	26,497,025,980	2,649,702,598
Jhal magsi	30,953	5.4%	32,609	31.2%	10,174	54,914	44,740	150,000	6,710,992,038	671,099,204	14,488,528,468	1,448,852,847
Kachhi	50,032	6.3%	53,159	26.3%	13,981	97,469	83,488	150,000	12,523,216,660	1,252,321,666	27,036,685,493	2,703,668,549
Kalat	33,101	4.9%	34,733	43.3%	15,039	56,200	41,161	150,000	6,174,122,786	617,412,279	13,329,468,019	1,332,946,802
Kech	253,475	2.7%	260,192	49.1%	127,754	337,974	210,220	150,000	31,532,991,368	3,153,299,137	68,077,363,302	6,807,736,330
Kharan	35,843	8.2%	38,771	23.4%	9,073	85,031	75,959	150,000	11,393,839,193	1,139,383,919	24,598,444,249	2,459,844,425
Khuzdar	161,450	3.8%	167,553	63.1%	105,726	242,822	137,096	150,000	20,564,455,673	2,056,445,567	44,397,117,409	4,439,711,741
Killa abduallah	67,289	1.9%	68,554	30.2%	20,703	82,589	61,886	150,000	9,282,857,024	928,285,702	20,040,992,075	2,004,099,208
Killa saifullah	69,998	1.7%	71,216	40.2%	28,629	84,624	55,995	150,000	8,399,310,852	839,931,085	18,133,482,159	1,813,348,216
Kohlu	38,095	3.3%	39,364	18.5%	7,282	54,621	47,339	150,000	7,100,793,271	710,079,327	15,330,080,093	1,533,008,009
Lasbela	115,539	2.8%	118,809	52.6%	62,493	157,053	94,560	150,000	14,183,969,796	1,418,396,980	30,622,126,952	3,062,212,695
Loralai	38,214	1.8%	38,913	20.2%	7,860	46,650	38,790	150,000	5,818,491,495	581,849,149	12,561,686,734	1,256,168,673
Mastung	43,695	2.8%	44,914	25.4%	11,408	59,141	47,733	150,000	7,159,976,398	715,997,640	15,457,852,026	1,545,785,203
Musakhel	31,252	1.5%	31,705	8.3%	2,632	36,614	33,983	150,000	5,097,411,344	509,741,134	11,004,928,773	1,100,492,877
Nasirabad	87,516	2.4%	89,590	38.7%	34,671	113,237	78,565	150,000	11,784,797,660	1,178,479,766	25,442,494,256	2,544,249,426

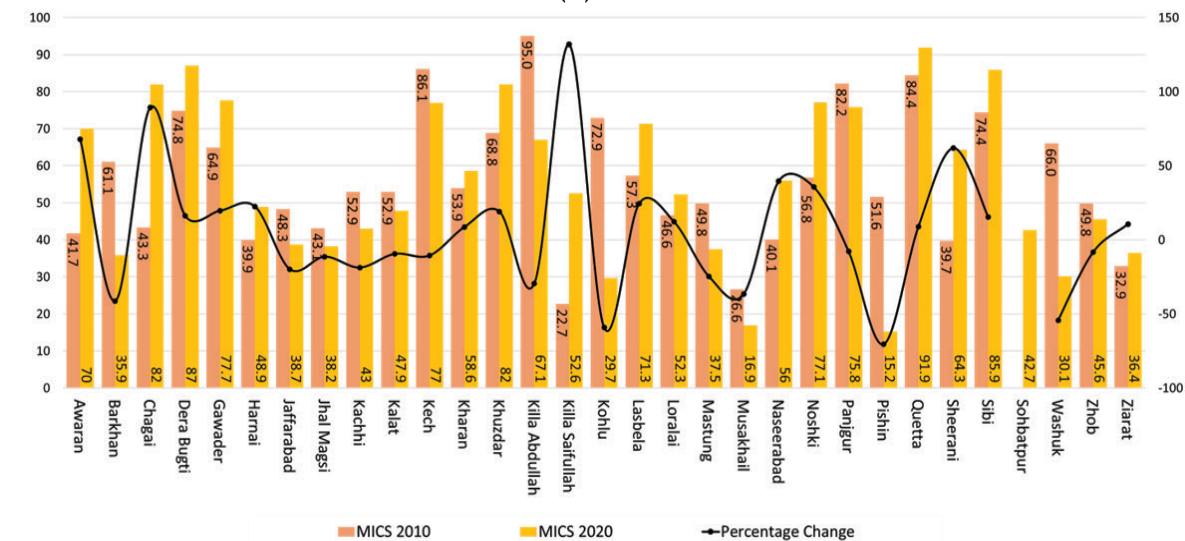
DISTRICT	households (as per Census 2023)	Average Population Growth 2023	Estimated households 2025	Baseline		Estimated Households 2035	Pop gap to meet access by 2035	Mean cost per HH at current rates	Total Cost to meet gap at current rates (2025-35)	Mean Annual Cost to meet gap at current rates (2025-35)	Total Cost to meet gap with 8% inflation (2025-35)	Mean Annual Cost to meet gap at 8% inflation (2025-35)
				%age	Household Served							
Nushki	31,255	2.5%	32,046	36.6%	11,729	41,141	29,413	150,000	4,411,912,000	441,191,200	9,524,987,102	952,498,710
Panjgur	117,089	8.4%	126,878	23.8%	30,197	283,188	252,991	150,000	37,948,688,834	3,794,868,883	81,928,372,937	8,192,837,294
Pishin	147,185	2.1%	150,305	10.1%	15,181	185,388	170,208	150,000	25,531,125,624	2,553,112,562	55,119,785,317	5,511,978,532
Quetta	288,459	2.3%	295,007	36.0%	106,203	369,245	263,043	150,000	39,456,407,415	3,945,640,742	85,183,424,271	8,518,342,427
Sherani	36,100	3.8%	37,486	51.9%	19,455	54,641	35,186	150,000	5,277,846,915	527,784,691	11,394,475,636	1,139,447,564
Sibi	31,296	3.8%	32,473	52.6%	17,081	46,970	29,889	150,000	4,483,367,027	448,336,703	9,679,253,147	967,925,315
Sohbatpur	33,734	3.1%	34,766	33.6%	11,681	46,996	35,314	150,000	5,297,155,557	529,715,556	11,436,161,547	1,143,616,155
Surab	51,227	5.0%	53,783	0.0%	-	87,524	87,524	150,000	13,128,571,541	1,312,857,154	28,343,601,277	2,834,360,128
Washuk	49,049	9.5%	53,714	27.9%	14,986	133,236	118,250	150,000	17,737,493,971	1,773,749,397	38,293,919,123	3,829,391,912
Zhob	47,901	2.3%	49,003	21.7%	10,634	61,514	50,881	150,000	7,632,116,236	763,211,624	16,477,166,523	1,647,716,652
Ziarat	22,894	2.9%	23,549	4.8%	1,130	31,220	30,090	150,000	4,513,454,255	451,345,425	9,744,209,214	974,420,921
Balochistan	2,317,256	3.2%	2,395,762	35.4%	813,488	3,415,502	2,602,015	150,000	390,302,179,180	39,030,217,918	842,633,131,121	84,263,313,112

Annex 5: Current Situation of WASH (district wise) in Balochistan

Comparison of District Wise Sources of Drinking Water in Balochistan - MICS 2010 vs 2020 (%)



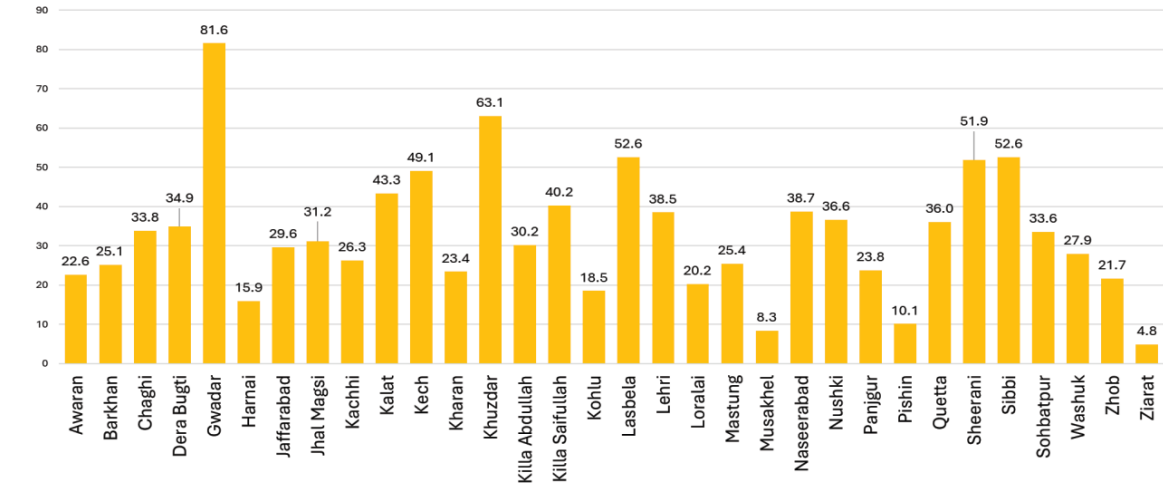
District Wise Households with Basic Sanitation (%)



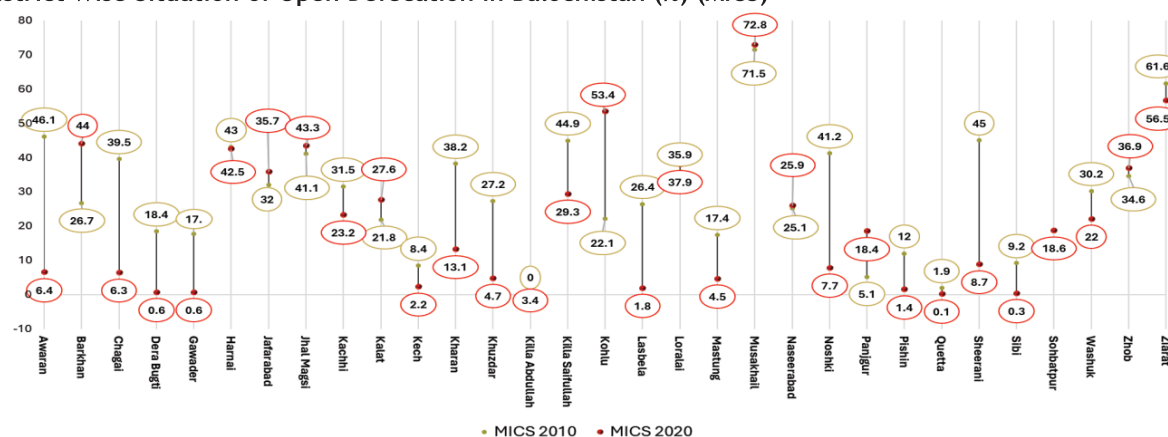
Sanitation Facilities in Balochistan (%) (MICS 2010 vs 2020)



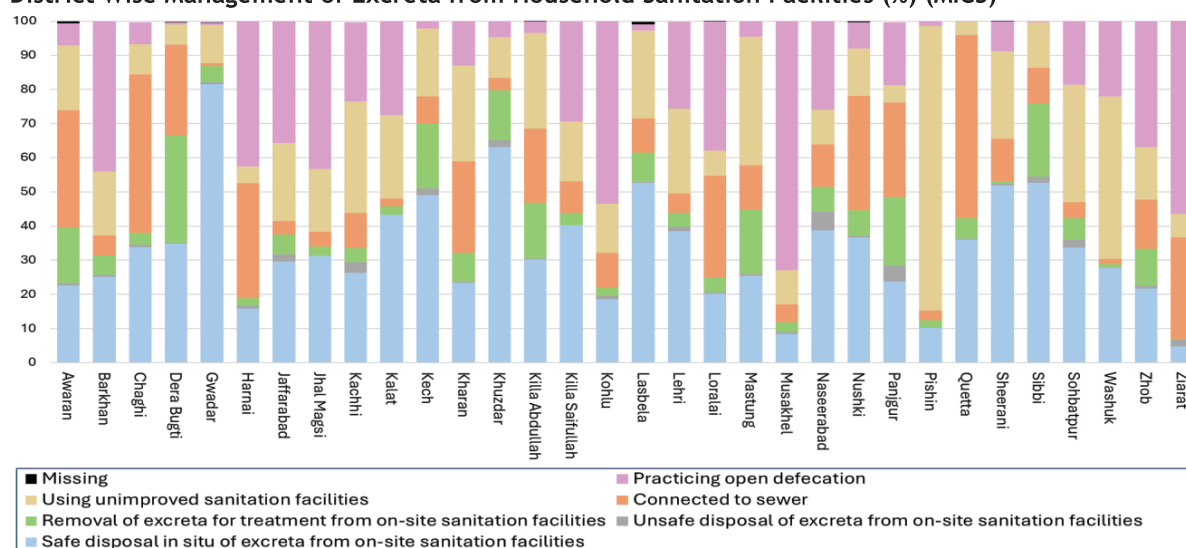
District wise Safely Managed Sanitation



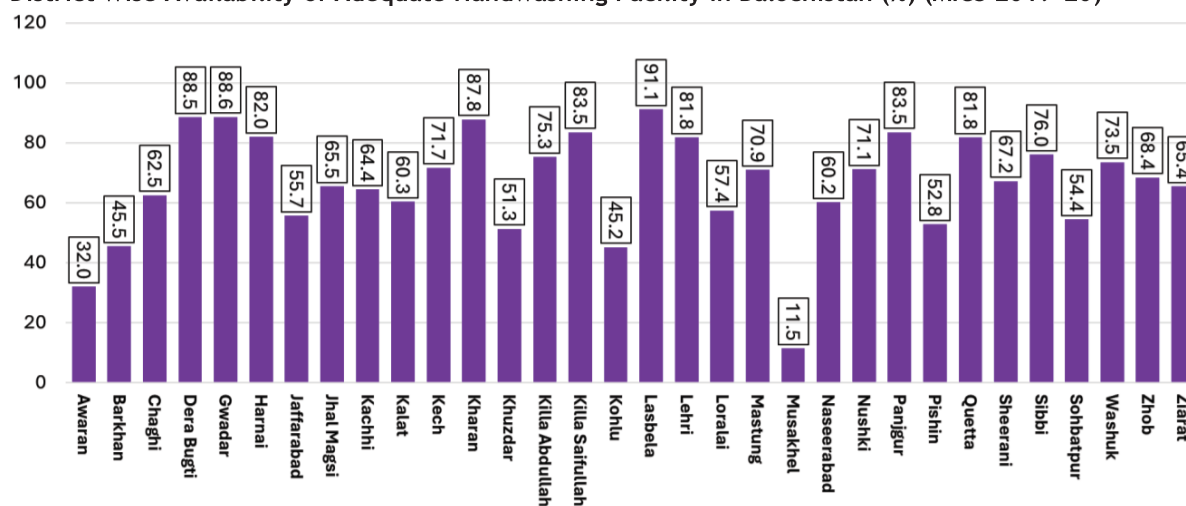
District Wise Situation of Open Defecation in Balochistan (%) (MICS)



District Wise Management of Excreta from Household Sanitation Facilities (%) (MICS)



District Wise Availability of Adequate Handwashing Facility in Balochistan (%) (MICS 2019-20)



Annex 6: WASH Financing in Balochistan

Financing for the WASH sector in Balochistan presents a critical challenge, especially in achieving the ambitious goals outlined in the Balochistan WASH Sector Plan 2015-2025. This chapter delves into the current financial landscape, identifies key challenges, and outlines strategic pathways to strengthen sector financing at both the provincial and district levels.

WASH Financial Portfolio for the Last Ten Years

Since 2014, annual allocations to the WASH sector in Balochistan have increased significantly, rising nearly fourfold from PKR 8.3 billion in FY 2014-15 to PKR 40 billion in FY 2023-24. However, WASH expenditures have shown a relatively lower growth, tripling from PKR 8.2 billion in FY 2014-15 to PKR 28.1 billion in FY 2024-25. Despite these increases, the funding trends have not followed a steady upward trajectory but have fluctuated significantly over the years. The highest allocations and expenditures were recorded in FY 2022-23, with PKR 43.6 billion and PKR 35.4 billion, respectively. Conversely, a sharp decline in both allocations and expenditures occurred in FY 2018-19, highlighting inconsistencies in financial commitment. Furthermore, the lowest budget utilization rate was observed in FY 2016-17, with only 61 per cent of the allocated budget being spent.

Further analysis indicates a distinct trend in the utilization of WASH budgets over the past decade. Current budget expenditures for WASH consistently surpassed allocated amounts, with total expenditures amounting to PKR 70.6 billion compared to allocations of PKR 58.3 billion. In contrast, the development budget for WASH has been significantly underutilized during the same period, with PKR 153.2 billion allocated but only PKR 100.7 billion spent, leaving a gap of over PKR 52 billion. The higher utilization of the current budget and underutilization of development funds indicate a diversion of significant resources from the development portfolio to the current portfolio, reflecting a reinvestment in existing infrastructure rather than efforts to expand services to underserved areas. Furthermore, this trend highlights a lack of planning and financial management capacity among service providers.

Table: Balochistan WASH Sector Budget Allocations and Expenditures for Last 10 Years

Fiscal Years	Allocation (in PKR Billion)			Expenditures (in PKR Billion)			Budget Utilization Rate
	Current	Development	Total	Current	Development	Total	
2014-15	3.5	4.8	8.3	4.4	3.8	8.2	99%
2015-16	4.0	4.6	8.7	4.8	4.4	9.2	106%
2016-17	4.2	15.3	19.4	6.3	5.5	11.8	61%
2017-18	4.9	8.2	13.1	7.0	7.7	14.7	112%
2018-19	5.0	3.8	8.8	6.0	3.8	9.7	110%
2019-20	5.5	13.8	19.3	5.5	11.8	17.3	90%
2020-21	5.8	13.3	19.1	5.4	10.0	15.4	81%
2021-22	7.9	23.1	31.0	8.1	13.5	21.6	70%
2022-23	8.5	35.1	43.6	11.2	24.2	35.4	81%
2023-24	9.0	31.2	40.2	12.0	16.2	28.1	70%
Total	58.3	153.2	211.5	70.6	100.7	171.4	81%

Source: WASH Budget Expenditure Review Reports

WASH Investment Targets vs. Actual

Over the past decade, WASH sector expenditures have fulfilled only 70 per cent of the PKR 244.5 billion investment needs identified in the Balochistan WASH Sector Development Plan 2015-2025. A detailed

analysis of term-wise investment targets reveals that the highest percentage of financing needs met (80 per cent) occurred during the short-term period (2015-2018). In contrast, the medium-term period (2018-2021) saw the lowest fulfilment of financing needs at just 61 per cent. However, for the long-term period, 71 per cent of the financing needs were met, reflecting moderate progress toward achieving the sector's overall targets. The shortfall in meeting investment needs is attributed, in part, to the persistent economic crises in the country, which have constrained fiscal space and reduced the availability of resources for critical sectors such as WASH. Fluctuations in funding availability, compounded by macroeconomic instability, have disrupted the implementation of development initiatives. Inflationary pressures, currency depreciation, and growing debt burdens have further limited the government's ability to prioritize long-term infrastructure investments.

Table: WASH Sector Investment Needs Vs. Actual Expenditures

	WASH Investment Needs (in PKR Billion)	Actual WASH Expenditures (in PKR Billion)	Percentage of Needs met
Short Term (2015-18)	54.8	43.9	80%
Medium Term (2018-21)	69.0	42.4	61%
Long Term (2021-25)	120.7	85.1	71%
Total	244.5	171.4	70%

Donor Contribution in WASH Development Sector

Further analysis of WASH development expenditures highlights a significant reliance on donor-funded projects, particularly in the past three years. In FY 2021-22, donor-funded projects accounted for 51 per cent of the total WASH development expenditures in the province, while in FY 2023-24, they contributed 50 per cent of the expenditures. The key donors in the WASH sector in Balochistan are the World Bank and the Asian Development Bank, which have financed three flagship projects: the Balochistan Integrated Water Resource Project, the Balochistan Water Resource Development Sector Project, and the Balochistan Water Resource Project. While these contributions have been instrumental in advancing WASH development, their impact and sustainability can be further enhanced through a comprehensive WASH investment strategy.

Table: WASH Sector Investment (Expenditures) and Donor Funded Contribution for the Last Three Years

	FY 2021-22	FY 2022-23	FY 2023-24
Total Development Portfolio	13,531	24,258	16,160
Donor Funded Projects	6,939	3,496	8,151
Percentage of Donor Funded Projects out to Toal Development Portfolio	51%	14%	50%
Total	244.5	171.4	70%

Source: EAD Reports and WASH Expenditure Reports

District Level WASH Budget and Expenditure 2022-2023

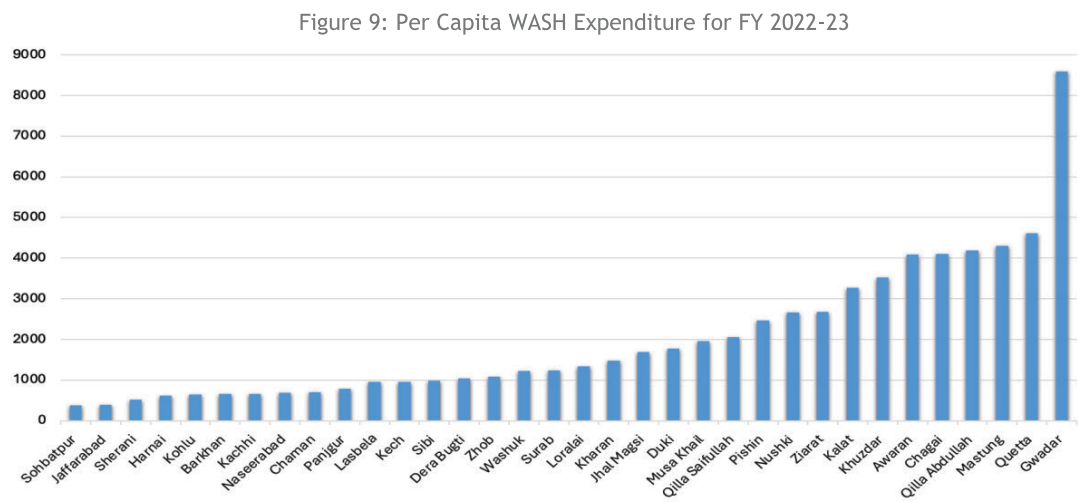
A review of district-level budgetary allocations and expenditures for fiscal year 2022-23 revealed notable trends. The highest spending was observed in district Qilla Saifullah, reporting a utilization rate of 161.6 per cent, followed by Chagai at 151.3 per cent, and Musa Khail at 123.2 per cent against their approved allocations. Conversely, the remaining districts adhered to their approved budgetary allocations, with eight districts—namely, Kachhi, Kharan, Washuk, Lasbela, Dera Bugti, Loralai, Ziarat, and Kohlu—registering budget utilization rates below 65 per cent. These findings underscore variances in expenditure patterns across districts, highlighting areas of both efficient resource utilization and potential underspending that warrant further examination. Detailed budgetary allocations versus expenditures for each district are outlined in table below.

Table: District Wise Allocations, Expenditure and Utilization of WASH Budget FY 2022-23 (in Rs. million)

Districts	Allocation 2022-23			Expenditure 2022-23			Utilization
	Current	Development	Total	Current	Development	Total	
Awaran	61	719	780	82	650	732	93.8%
Barkhan	43	83	126	45	93	137	109.0%
Chagai	54	675	729	623	480	1,103	151.3%
Chaman	5	338	343	8	319	327	95.2%
Dera Bugti	92	609	701	86	282	368	52.6%
Duki	51	399	450	77	285	363	80.6%
Gwadar	192	3,379	3,571	389	2,234	2,623	73.4%
Harnai	27	62	89	29	51	79	88.9%
Jaffarabad	68	224	292	87	141	228	78.1%
Jhal Magsi	34	312	346	46	299	344	99.7%
Kachhi	83	367	450	104	188	292	64.8%
Kalat	99	658	757	271	620	891	117.6%
Kech	221	990	1,211	333	677	1,010	83.4%
Kharan	89	523	612	133	253	386	63.0%
Khuzdar	167	3,526	3,693	229	3,285	3,514	95.1%
Kohlu	97	286	383	104	63	167	43.4%
Lasbela	165	1,030	1,195	185	461	646	54.0%
Loralai	135	633	768	86	278	364	47.4%
Mastung	118	1,508	1,626	157	1,191	1,348	82.9%
Musa Khail	49	241	290	60	297	358	123.2%
Naseerabad	92	300	392	132	254	386	98.6%
Nushki	74	620	694	132	422	554	79.8%
Panjgur	104	375	479	117	282	399	83.3%
Pishin	131	2,294	2,425	208	1,849	2,058	84.8%
Qilla Abdullah	73	1,397	1,470	78	1,439	1,517	103.2%
Qilla Saifullah	94	390	484	181	601	782	161.6%
Quetta	5,198	8,130	13,328	6,484	5,469	11,953	89.7%
Sherani	33	60	93	39	61	100	107.3%
Sibi	151	108	259	155	64	219	84.5%
Sohbatpur	43	70	113	62	29	90	80.4%
Surab	26	363	389	32	313	345	88.7%
Washuk	41	566	607	41	331	372	61.2%
Zhob	79	390	469	71	311	382	81.6%
Ziarat	52	1,047	1,099	49	458	507	46.1%
Provincial Balochistan	490	2,452	2,943	374	228	602	20.5%
Grand Total	8,531	35,123	43,654	11,285	24,256	35,542	81.4%

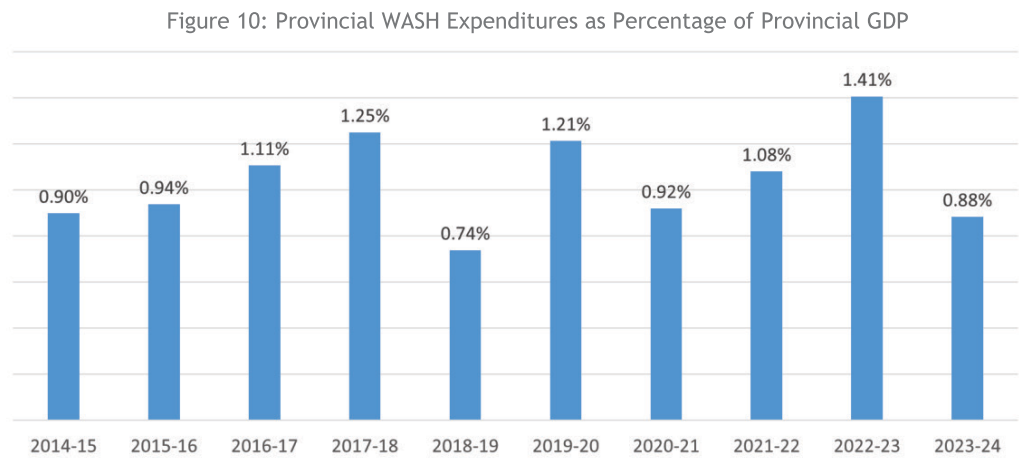
District-Level Disparities in WASH Investment

While looking into per capita WASH expenditures for FY 2022-23, a clear disparity emerges within the districts. The highest expenditures were observed in Gwadar, with PKR 8,594 per capita, a reflection of substantial investments linked to the China-Pakistan Economic Corridor (CPEC). Following Gwadar, Quetta recorded PKR 4,605 per capita, and Mastung PKR 4,303 per capita. Conversely, the lowest expenditures were seen in Sohbatpur (PKR 377 per capita) and Jaffarabad (PKR 384 per capita), exposing significant gaps in WASH development funding for these districts. This disparity highlights the need for a more equitable approach to resource allocation, ensuring that underserved areas receive adequate investment to address their critical WASH needs.



WASH Share in Provincial GDP

The comparison of estimated provincial GDP³ for the last ten years and WASH sector expenditures, it has revealed that the total investment for WASH in the province remained around 1.5 per cent of the GDP for the last ten years. This allocation is strikingly low, especially given the estimated economic cost of inadequate water and sanitation services at around 3.94 per cent of the national GDP (World Bank Group, 2012). This economic impact underscores a vast disparity, suggesting that poor WASH services contribute to a much higher financial loss than what is being invested to improve them.



³ Three per cent as per “Review of Administrative Data Sets and Survey for Computation/ Estimation of SDG Indicators” by Balochistan SDG Support Unit, available at <https://www.undp.org/pakistan/publications/review-administrative-data-sets-and-survey-computation/sdg-indicators>