



Government of Punjab

Tehsil Level Equity Mapping Water, Sanitation and Hygiene (WASH) Punjab, Pakistan

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Acronyms

CBO	Community Based Organization
DALYs	Disability Adjusted Life Years
DG Khan	Dera Ghazi Khan
EVS	Environment Vulnerability Score
HUD&PHED	Housing, Urban Development and Public Health Engineering Department
IMR	Infant Mortality Rate
LG&CDD	Local Government and Community Development Department
LGA	Local Government Act
M Bahauddin	Mandi Bahauddin
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
NA	Not Applicable
O&M	Operation and Maintenance
ODF	Open Defecation Free
ORS	Oral Rehydration Solution
PCA	Principal Components Analysis
PKR	Pakistani Rupee
PSLM	Pakistan Social and Living Standards Measurement Survey
RY Khan	Rahim Yar Khan
SRI	Sanitation Risk Index
TMA	Town/Tehsil Municipal Administration
U5MR	Under 5 Mortality Rate
WASA	Water and Sanitation Agency
WASH	Water, Sanitation and Hygiene
WFA	Weight for Age

Currency – 1 US Dollar is equivalent to about 100 Pakistani Rupees

FOREWARD

Punjab today stands at the crossroads of development. On one hand, it is home to over half the population of Pakistan, contributes to about 55% to 59% of the Gross Domestic Product of Pakistan, and leads in the service and agriculture sectors. On the other hand, it struggles with high child and maternal mortality rates, high rates of open defecation and quality of drinking water issues.

With rapid urbanisation taking place in most of the province, burgeoning of population dense intermediate and mega cities, large schools and health infrastructure, and rising multi-dimensional poverty, the needs of drinking water and sanitation have increased manifold in the last two decades. The targets of the Millennium Development Goals of Pakistan, especially for water and sanitation and child health were skewed because of Punjab. The launch of the new Sustainable Development Goals in September 2015 places an enormous responsibility on the Government of Punjab.

One of the main challenges that policy makers and planners face in the social sector is prioritisation of sectoral investments as there are many competing demands. To address this challenge for the water and sanitation sub-sectors, the Government of Punjab in collaboration with UNICEF commissioned a study to determine the equity profile of water and sanitation up to tehsil level. The aim of this study was to utilise a robust methodology to determine which tehsils were most in need for water and sanitation services.

This document is the result of a ground-breaking study that perhaps for the first time places an equity profile before planners and executing agencies for informed decision making and targeting appropriate interventions.

We are most grateful to UNICEF for their continued technical assistance to the Government of Punjab and hope that this report will be used by relevant Departments as they formulate their Medium Term and Annual Development Plans for water and sanitation.

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Executive Summary

Background

Punjab is the most populous province of Pakistan with approximately 55.6% of the country's total population. About 94% population in Punjab has access to an improved source of drinking water supply - 88% in urban and 97% in rural areas. Further, 19.2% population of Punjab province has access to tap water followed by 41.7% motorised pump and 30.6% hand pumps. About 75% population in Punjab use improved sanitation facilities - 92% in urban and 67% in rural areas. The Infant Mortality Rate (IMR) in Punjab is 76 per 1000 live births and Under 5 Mortality Rate (U5MR) is 96 per 1000 live births. Moreover, 33.7% of children under 5 years are underweight, 33.5% are stunted and 17.5% are wasted. Almost 80% households in Punjab have both water and soap (or another cleansing agent) present for hand washing – 93% in urban and 73% in rural areas.

Disparities in improving access to water and sanitation showed that poor sanitation is linked with poverty. The inequities identified indicate that different approaches and support are required for different groups to ensure their access and inclusion. To ensure equity in service development for water and sanitation, there is need to generate evidence for Government of Punjab on two grounds i.e. firstly, to delineate the poor areas in relation to sanitation especially Open Defecation Free (ODF) coverage up to tehsil level in Punjab, and secondly to establish a baseline for the province up to tehsil level to determine the impact of interventions to be made in light of the newly developed water, sanitation and hygiene sector development plan 2014-2024. The specific objective of the study include (i) determine the spread and distribution of water and sanitation by quintiles at district and tehsil levels; (ii) determine the vulnerability of districts and possibly at tehsil level for water and sanitation based on agreed criteria; and (iii) determine the distribution of sanitation-related health burden up to district and tehsil level

Methodology

The Multiple Indicators Cluster Survey (MICS) is a household survey conducted by the Provincial Bureaus of Statistics to track the progress of Millennium Development Goals (MDGs). The MICS 2011 was a comprehensive assessment of Punjab province up to district and tehsil levels and datasets of MICS 2011 have been used for this study. The study adopted the Principal Components Analysis (PCA) approach for Wealth Index by using information on the ownership of household assets, after which houses were ranked according to the wealth score and finally divided into five equal parts called quintiles or three equal parts called tertiles.

The Wealth Index is assumed to capture the underlying long-term wealth through information on the household assets and does not provide information on absolute poverty, current income or expenditure levels. As per the categorisation of MICS 2011, access to improved source of water supply and access to improved sanitation were defined and constructed up to

tehsil levels. For districts, the results were calculated into three areas: overall, urban and rural. For tehsils, an overall result was calculated because of the small sample size. Further, the study constructed three indices. Firstly, an Exposure Index that provides information about the extent to which the population is exposed to the underlying threats in the poor sanitation conditions such as no toilet and shared facilities. Secondly, a Susceptibility Index that provides information about the extent to which population is exposed to sanitation related potential health factors such as diarrhoea, etc. Thirdly, a Sanitation Risk Index (SRI) that explores the distribution of sanitation related health burden and potential impacts across wealth groups.

Key Findings

The analysis found that 94.1% population of Punjab has access to improved water supply with 96.4% in rural areas and 88.3% in urban areas. Only 4 out of 36 districts (11%) and 36 out of 150 tehsils (24%) have less than 90% access to improved water supply. About 79.4% of the richest in urban areas have access to improved water supply compared to 95.2% of the richest in rural areas.

Access to piped water supply is high in urban areas with 38.1% compared to 9.8% in rural areas. Compared to 57.7% of the poorest in the urban areas, only 30% of the richest in urban areas have access to piped water. In rural areas, the trend is reverse where the poorest have less access to piped water compared to the richest group.

The overall access to improved sanitation is 72.1% with 63.58% in rural areas and 94.25% in urban areas. There are 6 districts and 22 tehsils in Punjab where access to improved sanitation is below 50%. There is a positive association between poverty and unimproved sanitation evident from the fact that 90.5% of the poorest are living with unimproved sanitation compared to 4% of the richest

The burden of open defecation is tilted towards rural areas (31.78%) compared to urban areas (1.14%) and there are 5 districts and 27 tehsils in Punjab where open defecation is more than 40%. Further, 65.8% of the poorest practice open defecation compared to only 0.2% of the richest indicating that open defecation is more common among poor income groups.

More than half of the poorest (53.8%) in Punjab indicated availability of water and soap for hand washing compared to 96.1% of the richest. There are 7 districts and 24 tehsils in Punjab where 40% population were reported as having no water and soap for hand washing.

Overall, southern districts have a higher Exposure Index compared to northern and central districts indicating high vulnerability of the local population of these areas. The Susceptibility Index is equally distributed in southern and northern districts. The overall Sanitation Index (a combination of exposure and susceptibility index) is high in southern districts compared to northern districts requiring urgent action to improve sanitation services.

Recommendations

The districts and tehsils with high scores and levels of Sanitation Index, open defecation and unimproved sanitation should be given priority in improved sanitation initiatives.

The level of coverage for the poorest and poor groups should be used as a guideline for stakeholders to determine social protection for these underprivileged groups.

The equity mapping should be used in prioritising, planning, execution and monitoring of interventions and this will also contribute towards attaining Sustainable Development Goals.

The P&D Punjab and Bureau of Statistics Punjab, and all other stakeholders should be encouraged to collect data up to tehsil level on periodic basis under MICS rounds and other studies.

The social mobilisation and awareness campaigns in the areas/tehsils with high levels of open defecation, inequities and unimproved sanitation identified in the study should be initiated through an integrated approach within existing service delivery arrangements like schoolteachers, health workers and elected representatives.

A reward mechanism like provision of covered drains or sewer lanes or small wastewater treatment plants for communities should be introduced to promote construction of latrines.

Tehsils with high use of ground water for drinking purposes should be given priority to install water filtration plants to overcome depletion of underground water sources.

Introduction

Demographics

Punjab is the most populous province of Pakistan with approximately 55.6% of the country's total population. The population of Punjab increased from 20 million in 1951, to 73 million in 1998, and 95 million in 2011 and is expected to reach 101 million in 2015. The population growth rate in 1998 was 2.64%, which decreased to 1.9% in 2011. At the present growth rate of the population, Punjab is expected to double after 36 years. It is estimated that the population growth rate will reach 1.63% by 2030 with a population of 130 million, and by 2050 the population will have increased to 181 million. Rapid urbanisation and a growing population will continue to increase demands for sector and sub-sector services.

Institutions

At provincial level, the two main departments that are responsible for water and sanitation are Housing, Urban Development and Public Health Engineering Department (HUD&PHED) and Local Government and Community Development Department (LG&CDD). City District Governments are responsible for carrying out water and sanitation functions through Water and Sanitation Agencies (WASAs) and Solid Waste Management Companies. Town/Tehsil Municipal Administrations (TMAs) take care of both rural and urban water and sanitation in their respective tehsils. Coordination mechanisms between these two departments is improving gradually although there is still much that needs to be done to bring it to an optimal level. With regards to governance of water and sanitation, the institutional structure is as follows:

- At the provincial level - Housing, Urban Development and Public Health Engineering Department (HUD&PHED) and Local Government and Community Development Department (LG&CDD)
- Local governments – Water and Sanitation Agencies (WASAs) are responsible for 5 big cities
- All other areas – Town/Tehsil Municipal Administration (TMAs) are responsible which are likely to be replaced with elected councils towards the end of 2015
- Rural Water Supply Schemes – planned, designed and executed by PHED while operation and maintenance (O&M) is the responsibility of TMAs and Community Based Organisations (CBOs)

The new Local Government Act (LGA) 2013 envisages the restoration of the old mayoral system for the metropolitan cities, and chairman led district councils. The rural-urban divide has once again been instituted; in rural areas the union councils and zila (district) councils will be responsible for services; while in urban areas and the metropolis, metropolitan, municipal corporation, municipal and town committees will be restored. Currently, there is a period of transition with no elected local governments and the TMAs are still in place, albeit headed by an administrative figure. The LGA 2013 proposed the establishment of district education and district health authorities, which will be responsible for the planning, implementation and coordination of education and health, related interventions. Thus, water, sanitation and hygiene (WASH) will have the opportunity of collaboration at the district level as water and sanitation are already under the jurisdiction of Local Government.

Drinking Water

As per the Punjab Multiple Indicator Cluster Survey (MICS) 2014¹, about 94% of the population uses an improved source of drinking water – 89% in urban areas and 97% in rural. Further, 19.2% population of Punjab province has access to tap water followed by 41.7% motorised pump and 30.6% hand pumps. The proportion of population using tap water as a main supply of drinking water is higher in urban areas, 39.2% as compared to only 9.6% in rural areas. The situation in district Faisalabad is considerably worse than other districts - only 70% get drinking water from an improved supply source. District Lahore leads all other districts in piped water with 64% population enjoying this facility, while less than 3% of the population in Bhakkar, Layyah, Muzaffargarh, Rajanpur and Jhang use piped water. The highest use of hand pumps is found in Muzaffargarh (84%), motorised pump/tubewell in Gujrat (75%), protected well/spring in Sahiwal (about 18%) and rainwater collection in Khushab (5.3%). Overall, out of those household members who are using unimproved drinking water supply sources, only 2.1% are found using an appropriate water treatment method, slightly higher in urban (2.4%) than rural (1.6%). About 4.1% are boiling the water followed by 1.8% who use a water filter.

Sanitation

As per Punjab MICS 2014, 75% of the population are living in households who use improved sanitation facilities, which is higher in urban (92%) as compared to rural areas (67%). Residents of district Khanewal, Rajanpur, Jhang, Vehari, Multan, Lodhran and Muzaffargarh are less likely than others to use improved sanitation facilities. The data suggests that use of improved sanitation facilities is strongly associated with wealth index quintiles and is profoundly different between urban and rural areas. Only 24% of the population in the lowest

¹ During the study, the results of MICS 2014 were announced but data sets were not available. Further, MICS 2014 did not provide information up to tehsil level.

quintile is using improved sanitation as compared to 93% and 97% of the population in the 4th and highest quintiles respectively. The ‘flush connected to piped sewer system’ is most common in Lahore district where 84% population is using it. The use of septic tank is more prevalent in Gujrat, Sialkot and Nankana Sahib where more than 80% of population are using it.

Health and Hygiene

Infant Mortality Rate (IMR) and Under 5 Mortality Rate (U5MR) remain high in Punjab. The MICS 2014 found an IMR of 76 per 1000 live births and U5MR of 96 per 1000 live births. Evidence suggests that pneumonia, diarrhoea and malaria cause about 50% of all deaths in children in Pakistan. In Pakistan, 53,000 children die every year from diarrhoea². An estimated 25 million children and 50 million adults suffer from diarrhoeal morbidity annually in Pakistan. A further 27,000 people die from Typhoid/paratyphoid related diarrhoea, while 1.35 million have Typhoid/paratyphoid morbidity. Diarrhoea results in an estimated 2.5 million Disability Adjusted Life Years (DALYs) in Pakistan³.

Recent data from the Punjab MICS 2014 has shown that 33.7% of children under 5 years are underweight, 33.5% are stunted and 17.5% are wasted. Analysis of data shows that districts that have high child mortality rates also have high rates of children who are underweight or stunted. Districts that have high rates of diarrhoea in the last two weeks show a similar picture to underweight and stunting patterns. Furthermore, a similar pattern is seen in districts that have high ‘open defecation’ rates. The findings suggest that poor sanitation; diarrhoea and nutritional status have a close correlation.

The recent resurgence of polio in Pakistan, especially following the floods suggests pollution of water reservoirs as one causative factor. Recently in Lahore, environmental samples have detected polio virus. In 2013, there was a 60% increase in the number of polio cases in Pakistan compared to 2012 and all were due to a single strain ‘Wild Polio Virus’ Type 1⁴. Pakistan may be left as the last global outpost in the control of polio. Hepatitis A and E are now endemic due to contamination of drinking water by faecal matter⁵. Further, on analysis of water quality and rate of diarrhoea in the last two weeks, the patterns suggest that diarrhoea was more frequent in areas where either the water was chemically or bacterially unfit or both.

As per MICS 2014, it was observed that about 98% of the households had a specific place for hand washing, while only 0.5% households could not indicate a specific place where

² Pakistan Demographic and Health Survey 2012-13

³ Pakistan Strategic Country Environmental Assessment – World Bank 2006

⁴ Poliomyelitis: intensification of the global eradication initiative. Report by the Secretariat. Sixty-seventh World Health Assembly. A67/38 21 March 2014

⁵ Malik IA, Tariq WZ: Hepatitis E in Pakistan. EMHJ 2, 1:121-128, 1996

household members usually washed their hands. Among households where a place for hand washing was observed, almost 80% had both water and soap (or another cleansing agent) present at the specific place, and this was higher in urban (93%) as compared to rural areas (73%). In 17% of the households, only water was available at a specific place, while in 0.6% of the households the place had soap but no water. The remaining 2.5% of households had neither water nor soap available at the specific place for hand washing.

Sectoral Expenditure Overview

The Government of Punjab has steadily been increasing its investments in water supply and sanitation, despite major emergencies and disasters in the 2010 floods. The investment trends show an increase from PKR 8.9 billion in 2009-10 to PKR 18.8 billion in 2013-14. Current revenue expenditure has also increased during this period, a significant proportion of which is due to salaries and utilities.

The Government of Punjab has set aside PKR 11 billion for clean water in 2015-16 as part of special projects, excluding which the total sectoral allocation is PKR 13.8 billion. Overall, the increase in development revenue expenditure has been modest from PKR 8 billion in 2009 to an allocation of 10.8 in 2013-14, with similar allocations for 2014-15 and 2015-16.

In 2014-2015 budgets, the Government of Punjab has allocated PKR 400 million for ending open defecation in selected districts of the province. There is an intention on the part of the government to carry on this activity for the next four years to end open defecation in the province. A Sector Plan for 2014-2024 has been developed under the aegis of Planning and Development Department of Government of Punjab in collaboration with HUD&PHED and LG&CDD of Punjab. The plan has identified the investment needs of the province on the basis of access and coverage provided in Pakistan Social and Living Standards Measurement Survey (PSLM) 2010-2011 and MICS 2011 Punjab.

Equity

Disparities in progress in improving access to water and sanitation have raised concerns, and recent reports have shown significant variations in improving access to sanitation across quintiles in many low-income settings. There is a general awareness that poor sanitation is generally associated with poverty and some measures of economic status directly include sanitation access as an asset or proxy for wealth. The Millennium Development Goal (MDG) target on water and sanitation does not directly prioritise improvements for the poor. Often, sector investments are primarily used for infrastructure, such as drinking water supplies and urban wastewater treatment that is not likely to disproportionately benefit the poor.

Equity involves recognising that people are different, and for the realisation of their rights, different approaches and support are required. This may include special measures and processes to address the needs of people who are discriminated and disadvantaged. Moreover, inclusion is about improving access to services while supporting people who are marginalised and excluded. This becomes even more significant when one notes that 100-150 children die every day in Pakistan because of diarrhoeal related illnesses - many of these deaths can be prevented by adequate sanitation, safe drinking water and improved hygiene. About 60-75 million people in Pakistan are affected by diarrhoeal related illnesses annually⁶. Half of the rural population is without adequate sanitation and Pakistan is off-track to meet the projected MDG target of 67%. The economic impact of poor sanitation and hygiene results in an annual loss of 3.94% of the GDP⁷. Pakistan falls within the highly vulnerable zones of climate change and its inextricable link and need to develop its adaptive capacity, resilient water and sanitation systems and disaster risk reduction.

Unfortunately, there is considerable inequity in developing countries. People's access to and interaction with key institutions are shaped by power balances in the political, economic and social spheres, often leading to adverse incorporation and social exclusion. Also, patterns of inequality reinforce each other through intergenerational transmission and various formal and informal institutions, resulting in inequality between groups and geographical regions and chronic poverty passed between generations.

In 2011, the 18th Constitutional Amendment led to devolution of the social sectors including drinking water and sanitation. In 2014, the Government of Pakistan presented a Statement of Commitment at a high level meeting of Sanitation and Water for All in Washington. One of the commitments was development of a sector plan followed by equity based programming in the provinces, and this proposed study is aligned with that commitment.

There is considerable inequity within the Punjab province evident from the recently launched UNICEF report of Mapping of Inequities in Basic Water Supply and Sanitation Services in Pakistan in February 2015. The report is based on PSLM 2010-2011 district data. However, there is need to generate evidence for Government of Punjab on two grounds i.e. firstly, to delineate the poor areas in relation to sanitation especially Open Defecation Free (ODF) coverage up to tehsil level in Punjab, and secondly to establish a baseline for the province up to tehsil level to determine the impact of interventions to be made in light of the newly developed sector development plan.

⁶ Sector Review Report 2012. Investing Wisely. Sanitation and Water For All. Ministry of Climate Change, Government of Pakistan

⁷ Sector Review Report 2012. Investing Wisely. Sanitation and Water For All. Ministry of Climate Change, Government of Pakistan

Scope and Purpose

UNICEF seeks to advance equity-focused programming and budgeting for the water and sanitation sector specially to provide evidence in relation to coverage and access of WASH in different districts and tehsils of Punjab province. This study aims to provide the basis for effective lobbying and advocacy for appropriate WASH pro-poor resource allocation and interventions.

The task consisted of the following:

Develop equity based mapping and an equity profile for water and sanitation in Punjab province with special focus on wealth quintiles up to tehsil level primarily by using the MICS 2011 data.

Specific Objectives

1. Determine the spread and distribution of water and sanitation by quintiles at district and tehsil levels
2. Determine the vulnerability of districts and possibly at tehsil level for water and sanitation based on agreed criteria
3. Determine the distribution of sanitation-related health burden up to district and tehsil level

Methodology

Disparities in Drinking Water Supply and Sanitation Services have been assessed on the basis of wealth index/wealth quintile, and coverage/access to water and sanitation services.

Datasets for the Study

The MICS is a household survey developed by UNICEF and it is capable of producing statistically sound, internationally comparable estimates of social indicators such as the MDG indicators. In Pakistan, Provincial Bureaus of Statistics provide leadership in their respective provinces to conduct the survey along with Planning and Development Departments with support from UNICEF and other donors. The latest MICS Punjab 2014 results were announced in May 2015 and it is up to district level. The MICS 2011 was a comprehensive assessment of Punjab province up to district and tehsil levels. The Punjab WASH Sector Development Plan 2014-2024 used MICS data as a baseline for setting the targets. The report of MICS 2011 is available on the website of Planning and Development Department of Government of Punjab. The study used basic raw datasets that were obtained directly from the Punjab Bureau of Statistics and UNICEF.

Wealth Quintile

The Wealth Index is a composite measure of a household's cumulative living standard.

As used in the MICS 2011 report, the study adopted the Principal Components Analysis (PCA) approach for Wealth Index by using information on the ownership of consumer goods, dwelling characteristics, water and sanitation, and other characteristics that are related to the household's wealth to assign weights (factor scores) to each of the household assets. Each household was then assigned a wealth score based on these weights and the assets owned by that household. The survey household population was then ranked according to the wealth score of the household they are living in, and was finally divided into five equal parts called quintiles or three equal parts called tertiles. For quintiles, the five categories are: lowest (poorest), second (poor), third (middle), fourth (rich) and highest (richest) – comprising of five groups with an equal number of individuals in each category. For tertiles, the three categories are: low (poorest), middle (middle) and high (richest). The concept of tertiles has been applied at tehsil level as the sample size of some tehsils was very small and was not reflecting the true quintiles as in the case of districts.

The Wealth Index is particularly more valuable and reliable as there is paucity of reliable data on income and expenditures. The assets used in these calculations were as follows: number of

rooms for sleeping per member; material used for floor, roof and wall of dwelling; type of cooking fuel; electricity; gas; radio; television; cable television; mobile and non-mobile phone; computer; internet access; refrigerator; air conditioner; washing machine; cooler; microwave; sewing machine; iron; water filter; motorised pump; watch; bicycle; motorcycle/scooter; animal-drawn cart; car or truck; source of drinking water supply and type of sanitation facility.

The Wealth Index is assumed to capture the underlying long-term wealth through information on the household assets, and is intended to produce a ranking of households by wealth, from poorest to richest. The wealth index does not provide information on absolute poverty, current income or expenditure levels. The wealth scores calculated are applicable for only the particular data set they are based on. These assets were used to construct an asset index by using PCA methods described by Filmer and Pritchett⁸, Rutstein & Johnson⁹ and Córdova¹⁰. Following Filmer and Pritchett, many other studies, especially in the fields of economics and public policy, have been implemented and recommend the use of PCA for estimating wealth effects (Vyass and Kumaranayake¹¹; Labonne, Biller and Chase¹²).

Access to Improved Water

The MICS 2011 report provides information about categories of water supply sources like piped water into dwellings, compounds, neighbours and public tap/standpipe, hand pump, motorised pump, protected well, etc. The MICS report categorises improved and unimproved water sources as given below:

Piped into dwelling	Improved Water
Piped into compound, yard or plot	Improved Water
Piped to neighbour	Improved Water
Public tap /Standpipe	Improved Water
Tube well	Improved Water
Hand pump (tap)	Improved Water
Motorised pump (donkey/Turbine)	Improved Water
Protected well	Improved Water

⁸ Filmer D, Pritchett LH (2001) Estimating wealth effects without expenditure data - or tears: an application to educational enrollments in states of India. *Demography* 38(1): 115–32

⁹ Rutstein SO, Johnson K (2004) DHS Comp. Reports 6: The DHS Wealth Index. Calverton, Maryland: ORC Macro

¹⁰ Abby Córdova. Methodological Note: Measuring Relative Wealth using Household Asset Indicators. *Americas Barometer Insights*: 2008 (No.6)

¹¹ Vyass, Seema, and Lilani Kumaranayake. "Constructing Socioeconomic Status Indexes: How to Use Principal Component Analysis." *Health Policy and Planning* 21, no. 6 (2006): 459–68

¹² Labonne, Julien, Dan Biller, and Rob Chase. "Inequality and Relative Wealth: Do They Matter for Trust? Evidence from Poor Communities in the Philippines." In *Social Development Papers, Community Driven Development*, The World Bank, 2007

Protected spring	Improved Water
Unprotected well	Unimproved Water
Unprotected spring	Unimproved Water
Pond (toba)	Unimproved Water
Tanker-truck	Unimproved Water
Cart with small tank/drum	Unimproved Water
Surface water (river, stream, dam, lake)	Unimproved Water
Bottled water (mineral)	Unimproved Water
Other	Unimproved Water
Missing	Unimproved Water

Access to Improved Sanitation

The MICS 2011 report provides information about type of latrines including flush to piped sewer system, flush to septic tank, flush to pit latrine, flush to somewhere, pit latrine, etc. The MICS report 2011 categorises improved and unimproved sanitation as given below:

Flush to piped sewer system	Improved Sanitation
Flush to septic tank	Improved Sanitation
Flush to pit (latrine)	Improved Sanitation
Flush to unknown place / not sure / don't know	Improved Sanitation
Ventilated Improved Pit Latrine (VIP)	Improved Sanitation
Pit latrine with slab	Improved Sanitation
Composting toilet	Improved Sanitation
Flush to somewhere else	Unimproved Sanitation
Pit latrine without slab / open pit	Unimproved Sanitation
Bucket	Unimproved Sanitation
No facility, Bush, Field	Unimproved Sanitation
Other	Unimproved Sanitation
Missing	Unimproved Sanitation

Mapping of Wealth Quintiles for Improved Water and Sanitation

After constructing wealth quintiles for districts and tertiles for tehsils, the spread of categories of improved water and improved sanitation for each quintile was determined to identify the disparities of water and sanitation respectively.

For districts, the results were calculated into three areas: overall, urban and rural. For tehsils, an overall result was calculated because of the small sample size.

Exposure Index: This provides information about the extent to which population is exposed to the threats underlying in the poor sanitation conditions such as no toilet and shared facilities.

Susceptibility Index: This provides information about the extent to which population is exposed to sanitation related potential health factors such as diarrhoea, etc.

Sanitation Risk Index (SRI): This explores the distribution of sanitation related health burden and potential impacts across wealth groups.

Exposure Index

Exposure scores were constructed based on the disparities prevailing in the population in accessing the basic sanitation related facilities and extent to which the population was exposed to the threats underlying in the poor sanitation conditions prevailing across the areas. The following aspects of the disparities were considered while constructing Exposure based scores:

- Access to improved sanitation facilities (improved toilet system)
 - Access to unimproved facilities (un-improved toilet)
 - No facility (Open Defecation - No Facility, Bushes and Fields)
1. Exposure Index was constructed based on only those households having children under five years of age rather than the total households in the survey because the main focus was on the distribution of exposures and risks and children bear the majority of that health burden which includes diarrhoea, low weight gain, poor nutrition, etc.
 2. Population density without sanitation access was calculated at district and tehsil levels using the sampled data and population density estimates based on the estimates of population by year 2011 as per the Punjab Development Statistics 2012-2013. The calculated district and tehsil level population density was then normalized using provincial density without sanitation access. The population density without sanitation was then combined with environment vulnerability scores as discussed by Rheingans et al¹³.
 3. Environment Vulnerability Score (EVS) actually represents the probability of the population without sanitation prone to the threat of un-hygienic conditions. For example, in an informal population setting with limited drainage, rough housing structures, and

¹³ Richard Rheingans, Oliver Cumming, John Anderson and Julia Showalter. Estimating inequities in sanitation-related disease burden and estimating the potential impacts of pro-poor targeting. 2012. SHARE Consortium and DfID (UKAID)

access to unimproved water sources, the opportunity for child exposure to excreta in the environment may be much higher than in settings with proper housing structures, good drainage and infrastructure, and access to improved drinking water sources. For construction of EVS, house roofs and walls were divided into three categories (low, medium and high) and were assigned scores 2,1 and 0 respectively. For house roofs, the finished roof (metal, ceramics tiles, and lintel) was taken as low; rudimentary roof (rustic mud, palm/bamboo, wood planks) as medium; and simple roof (no roof, sod, and thatch/palm leaves) as high. For house walls, the finished wall (cement, bricks, covered blocks) was taken as low; rudimentary wall (bamboo/stone with muds, plywood, reused wood) as medium; and simple wall (no wall, cane/palm/trunks, dirt) as high. Similarly, access to drinking water sources was also divided into three categories (unimproved, low quality and improved) and were assigned the scores 2,1 and 0 respectively. These scores were then added and divided by the total score to get a standardised average of EVS. These scores were then multiplied with population density without sanitation as an adjustment.

4. In order to estimate the combined effect of these different exposure variables on disparities, we developed an Exposure Index.

Exposure Index = No facility (0,1) + No improved Facility (0,1) + Population Density without Sanitation

Where ‘No facility’ is 1 if the child’s household has no facility, ‘No improved facility’ is an additional 1, and ‘Population Density without sanitation’ is defined as above and normalised by dividing it by the national average density without sanitation.

Susceptibility Index

Literature on sanitation related burden and affects reveals that the sanitation related burden is a function of disparities in exposure and vulnerability.

The susceptibility index was developed while taking into account three individual diarrhoeal risk factors: low weight-for-age, use of Vitamin A supplementation, and likelihood of receiving appropriate treatment for diarrhoea. The index was constructed for each child as the product of the child’s risk factors and the evidence-based relative risk associated with each factor.

Susceptibility Index = Weight-for-age (WFA) risk * ORS (Oral Rehydration Solution) risk * Vitamin A risk

Where:

WFA risk = $-1.64 - 2.64 * \text{WFA z-score}$ if WFA z score ≤ -1

$= -3.32 - 3.48 * \text{WFA z-score if WFA z score} \leq -2$
 $= -23.76 - 10.36 * \text{WFA z-score if WFA z score} \leq -3$
 $= 12.5 \text{ if WFA z score} \leq 3.5$

Vitamin A risk = $1 - 0.28 * \text{Vitamin A supplement (0 or 1)}$

ORS risk = $1 - p(\text{ORS treatment}) * 0.93$

In weight-for-age, the risk is based on the linearized relative risk based on z-scores calculated in Caulfield and colleagues¹⁴. Relative risks are in comparison to children with z-scores of greater than -1.

Meta-analyses and reviews of studies of Vitamin A supplementation have been shown to reduce incidence of mortality due to diarrhoea in children under five years of age (Imdad et al¹⁵ and Imdad et al¹⁶). Mayo-Wilson et al¹⁷ showed an overall rate reduction of 0.72, calculated from seven studies of effects of Vitamin A supplementation on diarrhoea-associated mortality. In calculations of susceptibility indices, a child was given a score of 0.72 if they had received a Vitamin A dose in the Demographic and Health Survey. If there was no record or report of Vitamin A supplementation, the child received a score of 1.

Oral Rehydration Solution (ORS) administration in the affected children is believed to be an effective remedy against preventing deaths due to diarrhoea in children less than 5 years of age. The ORS administration probability to affected children was calculated by running a logistic regression analysing the probability scores of ORS administration based on location (district and tehsil levels) and wealth quintile.

Munos et al¹⁸ estimated that ORS administration reduced the diarrhoeal deaths by 93%. The ORS probabilities for each child were multiplied by 0.93 and then subtracted from 1 if they had a reported case of diarrhoea and subsequently received ORS treatment.

Sanitation Risk Index

¹⁴ Caulfield LE, de Onis M, Blössner M, Black RE (2004) Undernutrition as an underlying cause of child deaths associated with diarrhea, pneumonia, malaria, and measles. *Am J Clin Nutr* 80(1): 193-8.

¹⁵ Imdad A, Herzer K, Mayo-Wilson E, Yakoob MY, Bhutta ZA (2010) Vitamin A supplementation for preventing morbidity and mortality in children from 6 months to 5 years of age. *Cochrane Database of Systematic Reviews* 12. DOI: 10.1002/14651858.CD008524.pub2.

¹⁶ Imdad A, Yakoob MY, et al. (2011) Impact of vitamin A supplementation on infant and childhood mortality. *BMC Public Health* 11 (Suppl 3): S20 -.DOI:10.1186/1471-2458-11-S3-S20

¹⁷ Mayo-Wilson E, Imdad A, et al. (2011) Vitamin A supplements for preventing mortality, illness, and blindness in children aged under 5: systematic review and meta-analysis. *British Medical Journal* 343. DOI: 10.1136/bmj.d5094.

¹⁸ Melinda K. Munos, Christa L Fischer Walker and Robert E Black. The effect of oral rehydration solution and recommended home fluids on diarrhoea mortality. *Int. J. Epidemiol.* (2010) 39 (suppl 1): i75-i87. doi: 10.1093/ije/dyq025

SRI in the present study was based on the methods discussed by Rheingans et al¹⁹. By combining the Exposure Index and Susceptibility index, an overall Sanitation Risk Index has been determined with a postulation that children who have no exposure have no risk.

¹⁹ Richard Rheingans, Oliver Cumming, John Anderson and Julia Showalter. Estimating inequities in sanitation-related disease burden and estimating the potential impacts of pro-poor targeting. 2012. SHARE Consortium and DfID (UKAID)

Limitations

- The datasets at tehsil level are too small, and as a result only the overall picture of tehsils can be drawn rather than dividing them into urban and rural as has been done for the district level
- Further, by virtue of the small size of data samples available at tehsil level, it was more practicable to develop tertiles (dividing the data into three equal weights in relation to agreed assets rather than into five equal weights called quintiles) to obtain a more robust analysis and overall equity assessment
- The area for all tehsils was not readily available from any formal sources especially for those tehsils/circles created in urban areas and in recent years. Resultantly, Exposure and Sanitation indices of 47 tehsils could not be established since the necessary indicator of population density per square kilometre could not be determined. However, the Susceptibility Index of almost all tehsils has been established
- The study used secondary data which meant that cleaning of data was limited. This resulted in a few exceptions where trends were unusual e.g. Exposure Index of 14 tehsils is more than 10 value that is unusual. No such variations were observed in district scores, as information related to districts was readily available and accessible

Results

Access to Improved Water

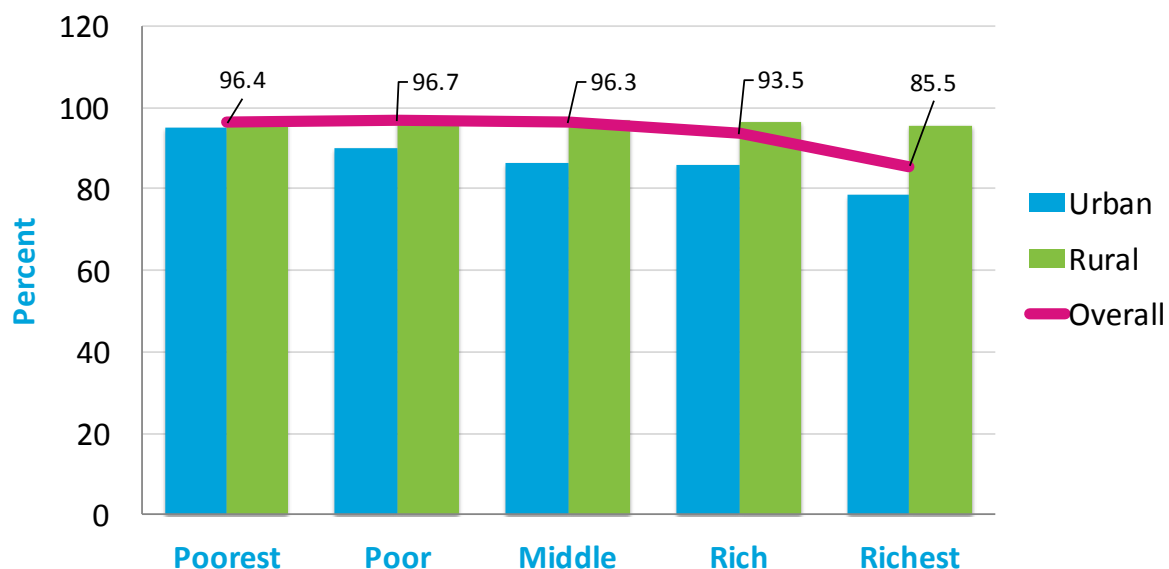
The study analysed the data sets of MICS 2011 by placing the different sources of water supply under the categories of improved and unimproved water (as indicated in the methodology section). The analysis found that 94.1% population of Punjab has access to improved water with 96.4% in rural areas and 88.3% in urban areas. Within the cities, access to improved water in five major cities is lower with 85.5% compared to other cities with 91.2%. The break up of different sources of drinking water is given in [Table 1](#).

Table 1 - Access to drinking water supply by source in Punjab

All source of drinking water	Urban %	Rural %	Total %
Piped into dwelling	29.7	5.3	12.5
Piped into compound, yard or plot	1.8	1.3	1.5
Piped to neighbour	1.0	1.2	1.2
Public tap /Standpipe	5.5	1.9	3.0
Tube well	0.7	0.4	0.5
Hand pump (tap)	8.5	44.1	33.6
Motorized pump (donkey/Turbine)	39.5	41.2	40.7
Protected well	0.5	0.7	0.6
Protected spring	0.0	0.3	0.2
Bottled water (mineral)	1.2	0.1	0.4
Improved Water	88.4	96.5	94.1
Unprotected well	0.0	0.5	0.4
Unprotected spring	0.0	0.3	0.2
Pond (toba)	0.0	0.1	0.1
Tanker-truck	0.2	0.1	0.1
Cart with small tank/drum	5.9	0.7	2.2
Surface water (river, stream, dam, lake)	0.1	0.4	0.3
Other	5.4	1.5	2.6
Missing	0.0	0.0	0.0
Unimproved Water	11.6	3.6	5.9

The motorised pumps (donkey/turbine) are the main source of drinking water supply in 40.7% followed by hand pumps in 33.6% and piped water supply in 18.1%. In rural areas, the main source of drinking water supply is hand pump in 44.1% and motorized pump in 39.5% in urban areas. a clear contrast in terms of access to piped water supply is visible between urban areas with 38.1% compared to 9.8% in rural areas.

Figure 1 - Access to improved water supply in Punjab by quintiles



A review of access to improved water in different quintiles reveals that the coverage goes down from the poorest to the richest, and it is more visible in urban areas compared to rural areas (Fig 1). This can be mainly attributed to the cart with small tanks/drums, which are about 5.9% in urban areas and only 0.7% in rural areas, and the rich and richest group generally purchase from these. There is evidence from district Faisalabad, where 18.5% bring water in small carts/tanks by either purchasing the water or fetching it themselves..

Table 2 presents the coverage of improved water supply by district. The districts at the bottom in relation to access to improved water supply in Punjab are Faisalabad with 79.1%, Dera Ghazi Khan with 84.7%, and Rawalpindi and Rajanpur with 86.5% each.

Table 2 - District coverage and ranking for improved water supply by district

District	Coverage %	Rank	District	Coverage %	Rank
Layyah	99.9	1	Gujranwala	95.3	19
Bhakkar	99.9	2	Rahim Yar Khan	95.1	20
Khanewal	99.2	3	Mandi Bahauddin	95.1	21
Jhang	98.8	4	Multan	95.0	22
Chiniot	98.2	5	Jhelum	94.8	23
Muzaffargarh	98.1	6	Khushab	94.2	24
Lodhran	97.9	7	Toba Tek Singh	94.0	25
Gujrat	97.7	8	Lahore	93.8	26
Pakpattan	97.3	9	Narowal	93.3	27
Okara	97.1	10	Sialkot	92.4	28
Sheikhupura	97.0	11	Bahawalnagar	92.3	29
Sahiwal	96.5	12	Attock	91.2	30
Hafizabad	96.3	13	Nankana Sahib	91.1	31
Mianwali	95.9	14	Chakwal	91.0	32
Bahawalpur	95.8	15	Rajanpur	86.5	33
Vehari	95.8	16	Rawalpindi	86.5	34
Kasur	95.6	17	Dera Ghazi Khan	84.7	35
Sargodha	95.5	18	Faisalabad	79.1	36

Out of a total 150 tehsils of Punjab, there are 36 tehsils that have less than 90% access to improved water. The tehsils with less than 80% coverage of access to improved water in Punjab are: Iqbal Town 48.1%, Kotli Satian 56.2%, Madina Town 65.9%, Kahuta Town 69.8%, Murree Town 71.4%, Jinnah Town 71.4% and Kallar Sayedan 79.7% (**Table 3**). The tehsils of Kotli Satian, Kahuta, Murree and Kallar Sayedan are hilly areas where the people are dependent upon spring water or dug wells. Iqbal Town, Madina Town and Jinnah Town are plain areas of Faisalabad, and people of those areas mostly purchase or fetch water from ground water pumps installed on the bank of the canals.

Table 3 - Tehsils ranking at less than 90% access to improved water supply

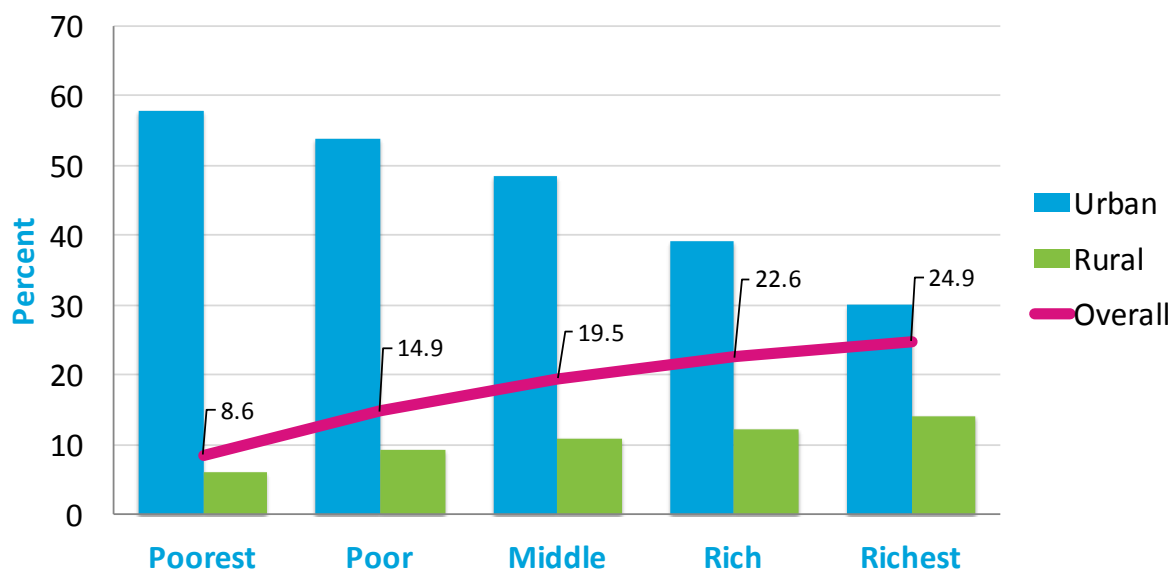
Tehsil	District	Coverage %	Rank
Sohawa	Jhelum	89	124
Sillanwali	Sargodha	88.9	125
Rawal Town	Rawalpindi	88.6	126
Bahawalpur City	Bahawalpur	88.5	127
Fort Abbas	Bahawalnagar	88.1	128
Rajanpur	Rajanpur	87	129
Isa Khel	Mianwali	87	129
Chakwal	Chakwal	86.6	131
Gujar Khan Town	Rawalpindi	86.3	132
Fateh Jang	Attock	85.8	133
Choa Saiden Shah	Chakwal	85.5	134
Sialkot	Sialkot	85.4	135
Cantonment	Lahore	84.9	136
Sammundri Town	Faisalabad	84.5	137
Shahkot	Nankana Sahib	83.9	138
Kalar Kahar	Chakwal	83.4	139
Jampur	Rajanpur	83.3	140
Sangla Hill	N. Sahib	82.7	141
Narowal	Narowal	82.5	142
Dera Ghazi Khan	Dera Ghazi Khan	82	143
Kallar Sayedan Town	Rawalpindi	79.7	144
Jinnah Town	Faisalabad	76.3	145
Murree Town	Rawalpindi	71.4	146
Kahuta Town	Rawalpindi	69.8	147
Madina Town	Faisalabad	65.9	148
Kotli Sattian Town	Rawalpindi	56.2	149
Iqbal Town	Faisalabad	48.1	150

Access to Piped Water Supply

The overall access to piped water supply in Punjab is 18.1%. This includes piped into dwellings, piped into compound/yard/plot, piped to neighbour, public tap/standpipe and tube well. The access is significantly higher in urban areas with 38.1% compared to rural areas with 9.8%.

An analysis of quintile groups shows that the poorest and the poor groups have higher access in urban areas compared to the rich and richest groups by virtue of sharing the tap water source with the neighbour and using public taps (**Fig 2**). In rural areas, the trend is reverse and the poorest and the poor groups have low access compared to the rich and richest.

Figure 2 - Access to piped water supply in Punjab by quintiles



The five bottom districts with the lowest coverage of access to piped water supply are: Layyah 0.2%, Bhakkar with 0.7%, Hafizabad with 1.3%, Jhang 1.6% and Muzaffargarh 1.7%. The five districts with the highest coverage of access to piped water supply in Punjab are: Lahore 69%, Bahawalnagar 43.9%, Rawalpindi 42.4%, T.T Singh 36% and Khushab 31.2%. The ranking of all districts of Punjab is given in [Table 4](#).

At tehsil level, the top six tehsils are from Lahore district with all above 80% i.e. Gulberg 92.95%, Ravi Town 89.66%, Data Ganj 88.92%, Shalimar 87.93%, Samanabad 83.87% and Aziz Bhatti 82.41%.

Two tehsils have zero access to piped water supply i.e. Bhowana of Chiniot district and Jatoi of Muzaffargarh. Another 13 tehsils have less than 1% access to piped water, and overall 46 tehsils in Punjab have less than 5% access to piped water. The list of the 15 bottom tehsils is given in [Table 5](#).

Table 4 - District coverage and ranking of access to piped water supply

District	Coverage %	Rank	District	Coverage %	Rank
Lahore	69.0	1	Rahim Yar Khan	9.0	19
Bahawalnagar	43.9	2	Narowal	8.5	20
Rawalpindi	42.4	3	Vehari	8.3	21
Toba Tek Singh	36.0	4	Sargodha	8.3	22
Khushab	31.2	5	Gujranwala	8.1	23
Attock	28.6	6	Pakpattan	7.8	24
Chakwal	26.5	7	Okara	5.8	25
Jhelum	25.4	8	Sahiwal	5.4	26
Mianwali	25.4	8	Khanewal	5.1	27
Gujrat	19.3	10	Rajanpur	3.1	28
Dera Ghazi Khan	19.1	11	Chiniot	3.1	29
Kasur	17.6	12	Nankana Sahib	2.9	30
Faisalabad	17.2	13	Mandi Bahauddin	2.3	31
Lodhran	15.6	14	Muzaffargarh	1.7	32
Sialkot	11.9	15	Jhang	1.6	33
Sheikhupura	11.3	16	Hafizabad	1.3	34
Multan	11.2	17	Bhakkar	0.7	35
Bahawalpur	11.1	18	Layyah	0.2	36

Table 5 - Tehsils with less than 1% access to piped water supply

Tehsil	District	Coverage %	Rank
Bhakkar	Bhakkar	0.85	136
Pindi Bhattian	Hafizabad	0.77	137
Safdarabad	Nankana Sahib	0.57	138
Kot Momin	Sargodha	0.47	139
Mankera	Bhakkar	0.41	140
Chobara	Layyah	0.34	141
Darya Khan	Bhakkar	0.32	142
Tandlianwala Town	Faisalabad	0.28	143
Ahmadpur Sial	Jhang	0.16	144
Layyah	Layyah	0.14	145
18 - Hazari	Jhang	0.07	146
Karor	Layyah	0.05	147
Kot Addu	Muzaffargarh	0.04	148
Jatoi	Muzaffargarh	0	149
Bhowana	Chiniot	0	149

Access to Improved Sanitation

The overall access to improved sanitation is 72.1% by using the datasets of MICS 2011 that categorized different types of toilets into category of improved and unimproved sanitation (as indicated in the methodology section). The rate of improved sanitation in urban area is 92.45% compared to rural areas with 63.68%. In simple words, two out of every three persons in rural areas of Punjab have improved sanitation. The break-up of different types of toilets in Punjab is given in **Table 6**.

Table 6 - Access to sanitation in Punjab

All source of Sanitation	Urban %	Rural %	Total %
Flush to piped sewer system	57.33	4.53	20.03
Flush to septic tank	32.51	46.35	42.29
Flush to pit (latrine)	1.80	11.02	8.32
Flush to unknown place / not sure	0.09	0.05	0.06
Ventilated improved pit latrine (VIP)	0.25	0.79	0.63
Pit latrine with slab	0.37	0.79	0.66
Composting toilet	0.10	0.15	0.14
Improved Sanitation	92.45	63.68	72.13
Flush to somewhere else	4.49	3.71	3.94
Pit latrine without slab / open pit	0.05	0.23	0.18
Bucket	0.02	0.08	0.06
No facility, Bush, Field	1.14	31.78	22.79
Other	1.59	0.42	0.76
Missing	0.27	0.10	0.15
Unimproved Sanitation	7.56	36.32	27.88

Overall, the toilets connected with septic tanks are the leading type of sanitation system used in Punjab in 42.49%, followed by No Facility/Bush/Fields (called as open defecation) in 22.79% and flush to piped sewer system in 20.3%. In urban areas, the leading system of sanitation is flush connected with piped sewer system in 57.33%, followed by flush to septic tank in 32.5% and about 4.49% flush connected to somewhere including open drains. In rural areas, the main system of sanitation is flush to septic tank in 46.35%, followed by open defecation in 31.78%, flush to pit latrine in 11.02%, flush to piped sewer system in 4.53% and flush to somewhere else in 3.71%. Hence, in rural areas, about three out of every ten persons practice open defecation.

A review of the MICS 2011 datasets for Punjab regarding access to improved sanitation show a positive relation between poverty and poor access to improved sanitation in urban as well as rural areas depicting a wide disparity between the poorest and the richest (**Fig 3**). In rural areas, only 9.5% of the poorest have access to improved sanitation compared to 68% of the

richest. In urban areas, 80% of the poorest have access to improved sanitation compared to 98.7% of the richest.

Figure 3 - Access to improved sanitation in Punjab by quintiles



The five bottom districts in terms of access to improved sanitation are: Rajanpur 33.4%, Dera Ghazi Khan 41.7%, Multan 44.8%, Muzaffargarh 46.1% and Chiniot 47.2%. The five districts with highest access to improved sanitation are: Lahore 97.4%, Gujranwala 96.7%, Sialkot 92.9%, Faisalabad 87.8% and Gujrat 86.9%. The level of coverage and ranking of districts in access to improved sanitation is shown in [Table 7](#).

There are over 20 tehsils in Punjab that have less than 50% access to improved sanitation ([Table 8](#)). The bottom five tehsils with poor access to improved Sanitation are: Shujabad 20.7 percent, Jalalpur Pirwala 23.4%, Rojhan 28.8%, Jampur 29.6% and Jatoi 31.2%. The top five tehsils with improved sanitation are Data Ganj Bakhsh 100%, Gulberg 100%, Samanabad 99.9%, Shalimar Town 99.8% and Ravi Town 99.2%.

Table 7 - District coverage and ranking of access to improved sanitation

District	Coverage %	Rank	District	Coverage %	Rank
Lahore	97.4	1	Khushab	70.8	19
Gujranwala	96.7	2	Sahiwal	69.7	20
Sialkot	92.9	3	Vehari	68.0	21
Faisalabad	87.8	4	Bhakkar	64.4	22
Gujrat	86.9	5	Lodhran	64.0	22
Sheikhupura	86.7	6	Bahawalnagar	63.0	24
Toba Tek Singh	85.8	7	Khanewal	62.1	25
Rawalpindi	84.2	8	Pakpattan	60.4	25
Narowal	82.6	9	Rahim Yar Khan	60.3	27
Jhelum	81.9	10	Bahawalpur	59.1	28
Chakwal	79.7	11	Layyah	58.9	29
Mianwali	79.6	12	Okara	55.8	30
Nankana Sahib	78.8	13	Jhang	47.6	31
Attock	78.2	14	Chiniot	47.2	32
Sargodha	74.1	15	Muzaffargarh	46.1	33
Mandi Bahauddin	73.9	16	Multan	44.8	34
Hafizabad	73.0	17	Dera Ghazi Khan	41.7	35
Kasur	72.5	18	Rajanpur	33.4	36

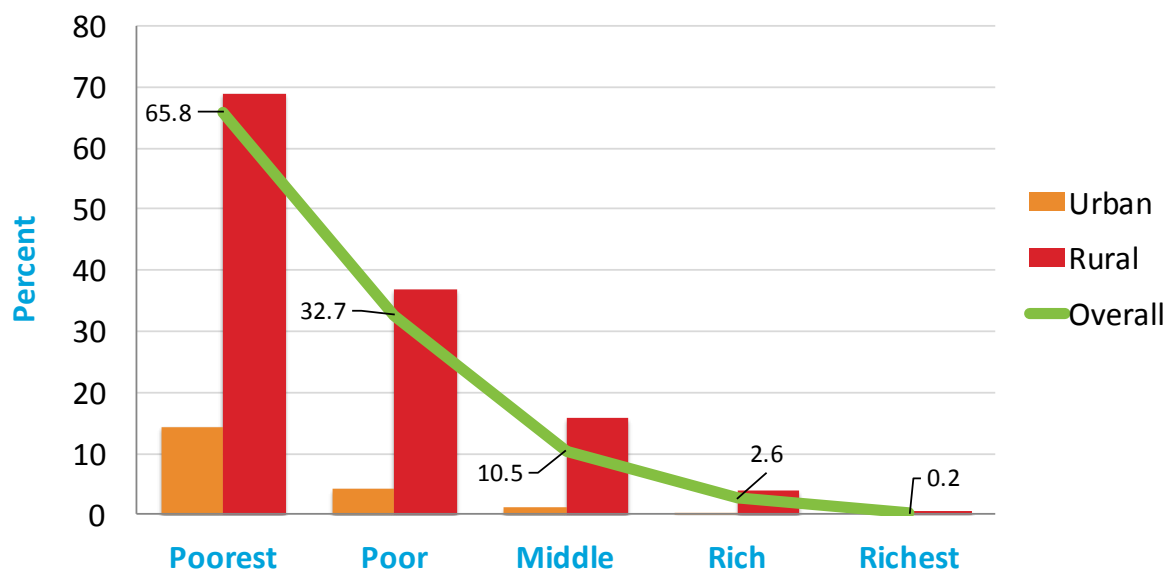
Table 8 - Tehsils with less than 50% access to improved sanitation

Tehsil	District	Coverage %	Rank
Liaquatpur	Rahim Yar Khan	49.6	128
Kabirwala	Khanewal	48.2	129
Mankera	Bhakkar	48	130
Ahmadpur East	Bahawalpur	47	131
Lalian	Chiniot	46.6	132
Sher Shah Town	Multan	45.4	133
Muzaffargarh	Muzaffargarh	45.2	134
Jhang	Jhang	44.2	135
Chobara	Layyah	44.1	136
Renala Khurd	Okara	43.2	137
Dera Ghazi Khan	Dera Ghazi Khan	42.5	138
Ahmadpur Sial	Jhang	41.6	139
Bhowana	Chiniot	41.1	140
Mousa Pak Town	Multan	41	141
Rajanpur	Rajanpur	40.3	142
Taunsa	Dera Ghazi Khan	38.9	143
Alipur	Muzaffargarh	38.2	144
Khairpur Tamewali	Bahawalpur	36.5	145
Jatoi	Muzaffargarh	31.2	146
Jampur	Rajanpur	29.6	147
Rojhan	Rajanpur	28.8	148
Jalalpur Pirwala	Multan	23.4	149
Shujabad Town	Multan	20.7	150

Open Defecation

The overall population practicing open defecation in Punjab is 22.8%. This includes population without toilet facilities and using fields and bushes for defecation. Compared to only 1.1% population of urban areas, around 31.8% in rural areas of Punjab are practicing open defecation clearly depicting that open defecation is an issue of rural sanitation. Simply, more than three out of every ten persons in rural areas of Punjab are practicing open defecation.

Figure 4 - Open defecation in Punjab by quintiles



Analysis of data by quintiles revealed that there is significant disparity between the poorest and richest groups. Nearly two out of every three (65.8%) of the poorest group, and one out of every three (32.7%) of the poor group practice open defecation (**Fig 4**). Compared to 65.8% of the poorest, only 0.2% of the richest practice open defecation. Further, in rural areas, 68.7% of the poorest and 36.8% of the poor practice open defecation compared to only 4.1% of the rich and 0.6% of the richest. In urban areas, only 14.3% of the poorest engaged in open defecation compared to none in the richest. Thus, the data clearly shows that open defecation is prevalent predominantly in the poorest and poor groups of the communities.

There are five districts in Punjab where open defecation is less than 10%. These are: Lahore 1.1%, Gujranwala 1.9%, Sialkot 6.3%, Sheikhupura 7.7% and Rawalpindi 8.7%. On the bottom side, there are five districts where open defecation is more than 40%. These are: Jhang 44.2%, Chiniot, 48.4%, Dera Ghazi Khan 50.3%, Muzaffargarh 51.2% and Rajanpur 61.8% (**Table 9**). Four of these districts are part of Southern Punjab. Overall 50% districts of Punjab have open defecation rates of more than 25% indicating that one out of every four persons in these districts practices open defecation.

Table 9 - District coverage and ranking of open defecation in Punjab

District	Coverage %	Rank	District	Coverage %	Rank
Lahore	1.1	1	Sargodha	25.1	19
Gujranwala	1.9	2	Vehari	25.3	20
Sialkot	6.3	3	Mandi Bahauddin	25.5	21
Sheikhupura	7.7	4	Sahiwal	25.9	22
Rawalpindi	8.7	5	Khushab	27.7	23
Faisalabad	10.3	6	Bhakkar	31.3	24
Gujrat	12.9	7	Rahim Yar Khan	32.0	25
Toba Tek Singh	13.5	8	Bahawalpur	33.0	26
Attock	15.7	9	Bahawalnagar	33.2	27
Narowal	16.8	10	Lodhran	33.7	28
Jhelum	17.1	11	Pakpattan	36.2	29
Chakwal	19.4	12	Layyah	39.0	30
Nankana Sahib	19.5	13	Okara	39.1	31
Mianwali	19.5	14	Jhang	44.2	32
Khanewal	21.8	15	Chiniot	48.4	33
Kasur	22.7	16	Dera Ghazi Khan	50.3	34
Multan	22.8	17	Muzaffargarh	51.2	35
Hafizabad	24.4	18	Rajanpur	61.8	36

There are 27 tehsils in Punjab where open defecation is more than 40% and 47 tehsils where open defecation is more than 30%. Three tehsils with more than 60% open defecation are: Jampur 69.15%, Jatoi 67.39% and Rojhan 67.27%. Eight tehsils with more than 50% open defecation are: Ali Pur 58.05%, Bhowana 57.51%, Chobara 55.47%, Ahmadpur Sial 52.21%, Muzaffargarh 51.98%, Lalian 51.63%, Dera Ghazi Khan 50.39% and Mankera 50.2%. The list of tehsils with more than 40% of open defecation in Punjab is given [Table 10](#).

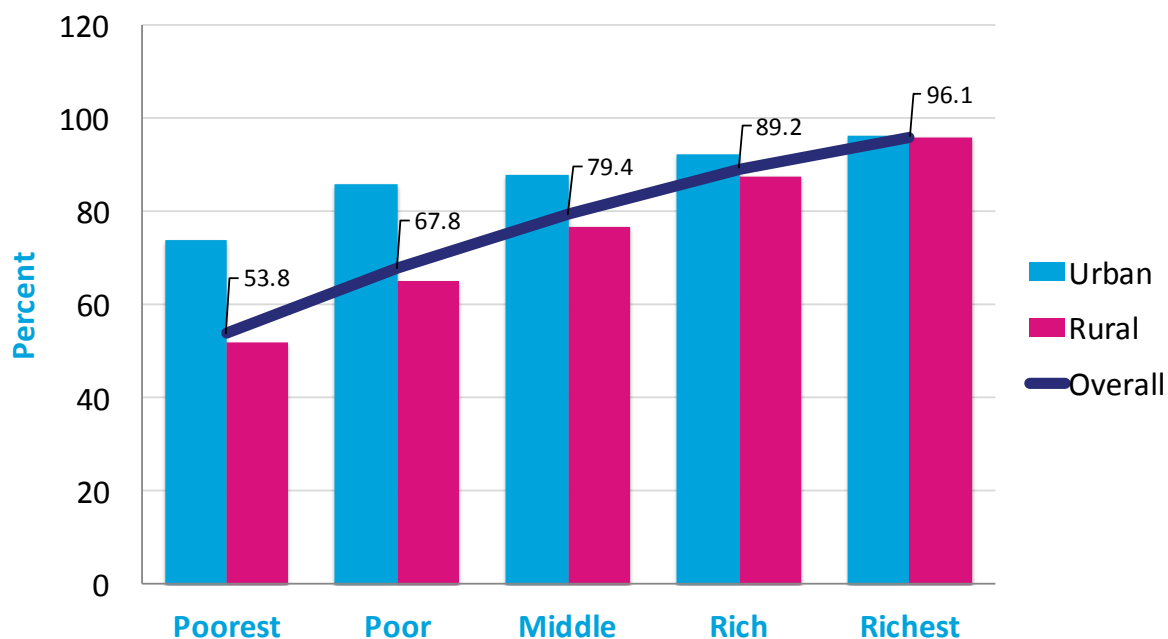
Table 10 - Tehsils with more than 40% open defecation rates

Tehsil	District	Coverage %	Rank
Chiniot	Chiniot	40.02	123
Kot Momin	Sargodha	41.11	124
Karor Pacca	Lodhran	41.3	125
Yazman	Bahawalpur	42.38	126
Shorkot	Jhang	42.82	127
Bahawalnagar	Bahawalnagar	43.07	128
Khairpur Tamewali	Bahawalpur	43.1	129
Minchinabad	Bahawalnagar	43.42	130
Shujabad Town	Multan	44.02	131
Nurpur Thal	Khushab	44.21	132
Jhang	Jhang	44.34	133
Ahmadpur East	Bahawalpur	45.04	134
Tandlianwala Town	Faisalabad	45.87	135
Jalalpur Pirwala Town	Multan	49.02	136
Renala Khurd	Okara	49.47	137
Rajanpur	Rajanpur	49.78	138
Taunsa	Dera Ghazi Khan	49.99	139
Mankera	Bhakkar	50.2	140
Dera Ghazi Khan	Dera Ghazi Khan	50.39	141
Lalian	Chiniot	51.63	142
Muzaffargarh	Muzaffargarh	51.98	143
Ahmadpur Sial	Jhang	52.21	144
Chobara	Layyah	55.47	145
Bhowana	Chiniot	57.51	146
Alipur	Muzaffargarh	58.05	147
Rojhan	Rajanpur	67.27	148
Jatoi	Muzaffargarh	67.39	149
Jampur	Rajanpur	69.15	150

Hygiene

Poor hygiene is the main carrier of majority of water borne diseases especially inappropriate personal hygiene including hand wash at critical times. In MICS 2011, nearly 76.8% population of Punjab reported to use water and soap for personal hygiene and hand wash at critical times with 92.1% in urban areas and 71.5% in rural areas. More than three out of every four persons in Punjab reported the use of water with soap for their personal hygiene.

Figure 5 - Hand wash with water and soap in Punjab by quintiles



An analysis of MICS 2011 data in relation to hand washing with soap and water revealed that 53.8% of the poorest and 67.8% of the poor use water and soap for washing their hands at critical times (Fig 5). In other words, slightly less than half of the poorest group and one-third of the poor are not using soap and water for washing their hands. In urban areas, around 73.9% of the poorest use water and soap compared to 96.3% of the richest. In rural areas, around 52.1% of the poorest use water and soap compared to 96% of the richest. Hence, the data suggests a need for comprehensive hygiene awareness campaigns targeting the poorest and poor groups.

There are seven districts in Punjab where more than 90% of the population indicated the availability of soap and water for personal hygiene. These are: Gujrat 96.3%, Hafizabad 94.3%, Gujranwala 94%, Lahore 93.9%, Lahore 93.9%, Rawalpindi 92.1%, Sialkot 91.6% and Narowal 90.3%. On the bottom side, there are seven districts with less than 60% water and soap available. These are: Dera Ghazi Khan 36.3%, Rahim Yar Khan 54.2%, Jhang 55.1%, Muzaffargarh 57.2%, Bahawalpur 57.2%, Bahawalpur 57.2%, Lodhran 57.5% and Multan 58.2% (Table 11).

Table 11 - District coverage and ranking of water and soap available in Punjab

District	Coverage %	Rank	District	Coverage %	Rank
Gujrat	96.3	1	Mianwali	77.6	19
Hafizabad	94.3	2	Bahawalnagar	77.1	20
Gujranwala	94.0	3	Vehari	73.3	21
Lahore	93.9	4	Rajanpur	70.2	22
Rawalpindi	92.1	5	Khushab	68.3	23
Sialkot	91.6	6	Khanewal	67.9	24
Narowal	90.3	7	Chakwal	64.0	25
Sahiwal	88.4	8	Attock	63.9	26
Sheikhupura	86.7	9	Chiniot	62.8	27
Okara	85.7	10	Layyah	61.5	28
Faisalabad	85.3	11	Bhakkar	60.5	29
Jhelum	84.8	12	Multan	58.2	30
Kasur	82.6	13	Lodhran	57.5	31
Sargodha	82.4	14	Bahawalpur	57.2	32
Mandi Bahauddin	82.3	15	Muzaffargarh	57.2	33
Pakpattan	80.2	16	Jhang	55.1	34
Nankana Sahib	78.8	17	Rahim Yar Khan	54.2	35
Toba Tek Singh	77.7	18	Dera Ghazi Khan	36.3	36

In Punjab, there are 24 tehsils that scored less than 60% in relation to availability of water and soap to the population. The top five tehsils in Punjab are: Samanabad 98.9%, Gulberg 98.7%, Wazirabad 97.4%, Gujrat 97.1% and Data Ganj Bakhsh 97%. The bottom five tehsils of Punjab are: Tanusa 21.3%, Shujabad Town 34.8%, Jalalpur Pirwala 38.3%, Ahmadpur East 39.8% and Mankera 40.3% (Table 12). These tehsils are all from Southern Punjab.

Table 12 - Tehsil coverage and ranking of water and soap available in Punjab

Tehsil	District	Coverage %	Rank
Karor	Layyah	59.6	124
Kabirwala	Khanewal	59.4	125
Lalian	Chiniot	59.0	126
Yazman	Bahawalpur	58.4	127
Lodhran	Lodhran	58.2	128
Kot Addu	Muzaffargarh	57.5	129
Jand	Attock	56.9	130
Talagang	Chakwal	55.3	131
Alipur	Muzaffargarh	54.6	132
Karor Pacca	Lodhran	54.3	133
Rahim Yar Khan	Rahim Yar Khan	53.8	134
Bhowana	Chiniot	52.0	135
Chobara	Layyah	51.4	136
Liaquatpur	Rahim Yar Khan	50.4	137
Sadiqabad	Rahim Yar Khan	50.2	138
Mailsi	Vehari	50.2	138
Tandlianwala Town	Faisalabad	48.8	140
Jhang	Jhang	48.5	141
Nurpur Thal	Khushab	46.8	142
Jatoi	Muzaffargarh	44.2	143
Khairpur Tamewali	Bahawalpur	41.0	144
Dera Ghazi Khan	Dera Ghazi Khan	40.4	145
Mankera	Bhakkar	40.3	146
Ahmadpur East	Bahawalpur	39.8	147
Jalalpur Pirwala Town	Multan	38.3	148
Shujabad Town	Multan	34.8	149
Taunsa	Dera Ghazi Khan	21.3	150

Exposure Index

The Exposure Index shows the vulnerability of the population of the areas in context to unimproved sanitation - the higher the value, the higher the vulnerability. The Exposure Index of Punjab is 2.40, based on MICS 2011 datasets. The five districts with the highest Exposure Index are: Multan 5.30, Muzaffargarh 3.38, Okara 3.29, Pakpattan 2.91 and Chiniot 2.86. These districts are all from Southern Punjab except for Okara. Five districts with the lowest Exposure Index are Jhelum with 0.98, Chakwal 1.02, Gujranwala 1.13, Attock 1.15 and Lahore 1.211. All these districts are from the northern and central belt of Punjab. The findings indicate that southern districts are more vulnerable compared to northern districts. District ranking and scores of Exposure Index are shown in [Table 13](#).

Susceptibility Index

The Susceptibility Index has been calculated in relation to the sanitation risk burden that is addressed with provision of Oral Rehydration Solution (ORS), Weight for Age Z scores and Vitamin A supplement. The Susceptibility Index of Punjab is 0.53. A higher Susceptibility Index indicates a higher risk of sanitation related diseases. Five districts with the lowest Susceptibility Index are: Kasur 0.20, Lodhran 0.22, Sargodha 0.34, Chakwal and Toba Tek Singh 0.36. Five districts with the highest Susceptibility Index are: Mianwali 0.92, Khanewal 0.82, Nankana Sahib 0.82, Sahiwal 0.74 and Hafizabad 0.72. District ranking and scores of Susceptibility Index are shown in [Table 13](#).

Sanitation Index

The Sanitation Index is a combination of exposure and susceptibility scores. A higher value indicates a worse situation. The district with the highest (worse situation) Sanitation Index are: Multan 5.80, Muzaffargarh 3.99, Okara 3.72, Pakpattan 3.52, Khanewal 3.49 and Rajanpur 3.37. The districts with the lowest score are: Chakwal 1.39 followed by Jhelum 1.5, Attock 1.61, Khushab 1.62, Gujranwala 1.65 and Lahore 1.67. District ranking and scores of Sanitation Index are shown in [Table 13](#), while Tehsil ranking and scores are shown in [Table 14](#).

Table 13 - District score and ranking of Exposure, Susceptibility and Sanitation Indices

District	Exposure Index	Rank	Susceptibility Index	Rank	Sanitation Index	Rank
Bahawalpur	1.58	12	0.55	24	2.13	11
Bahawalnagar	1.74	15	0.49	18	2.23	15
Rahim Yar Khan	2.45	24	0.51	21	2.96	25
Dera Ghazi Khan	2.47	26	0.40	9	2.87	23
Layyah	2.24	22	0.70	31	2.94	24
Muzaffargarh	3.38	35	0.61	28	3.99	35
Rajanpur	2.79	30	0.58	25	3.37	31
Faisalabad	1.82	17	0.62	30	2.44	19
Chiniot	2.86	32	0.49	16	3.35	30
Jhang	2.72	29	0.44	13	3.16	28
Toba Tek Singh	1.35	10	0.36	5	1.71	7
Gujranwala	1.13	3	0.52	23	1.65	5
Gujrat	1.32	7	0.43	12	1.75	8
Hafizabad	1.94	21	0.72	32	2.66	22
Mandi Bahauddin	1.84	18	0.39	7	2.23	16
Narowal	1.69	14	0.51	20	2.20	13
Sialkot	1.34	9	0.60	27	1.94	10
Lahore	1.21	5	0.45	15	1.67	6
Kasur	2.40	23	0.20	1	2.60	20
Nankana Sahib	1.79	16	0.82	34	2.61	21
Sheikhupura	1.67	13	0.49	17	2.16	12
Multan	5.30	36	0.50	19	5.80	36
Khanewal	2.66	28	0.82	35	3.49	32
Lodhran	2.83	31	0.22	2	3.05	27
Vehari	2.46	25	0.59	26	3.05	26
Sahiwal	2.50	27	0.74	33	3.24	29
Pakpattan	2.91	33	0.62	29	3.52	33
Okara	3.29	34	0.43	11	3.72	34
Rawalpindi	1.52	11	0.39	6	1.90	9
Attock	1.15	4	0.45	14	1.61	3
Chakwal	1.03	2	0.36	4	1.39	1
Jhelum	0.98	1	0.52	22	1.50	2
Sargodha	1.87	20	0.34	3	2.21	14
Bhakkar	1.85	19	0.41	10	2.26	18
Khushab	1.23	6	0.39	8	1.62	4
Mianwali	1.33	8	0.92	36	2.25	17

Table 14 - Tehsil score and ranking of Exposure, Susceptibility and Sanitation Indices

Tehsil / Town	District	Exposure Index	Rank	Susceptibility Index	Rank	Sanitation Index	Rank
Ahmadpur East	Bahawalpur	3.47	77	0.57	68	4.05	80
Bahawalpur City	Bahawalpur	NA	NA	NA	NA	NA	NA
Bahawalpur Sadar	Bahawalpur	NA	NA	NA	NA	NA	NA
Hasilpur	Bahawalpur	2.27	52	0.61	74	2.88	54
Khairpur Tamewali	Bahawalpur	2.56	61	0.58	69	3.14	60
Yazman	Bahawalpur	1.36	20	0.40	35	1.76	15
Bahawalnagar	Bahawalnagar	2.45	58	0.68	83	3.12	59
Chishtian	Bahawalnagar	1.82	39	0.47	52	2.29	38
Fort Abbas	Bahawalnagar	10.63	89	0.46	51	11.09	89
Haroonabad	Bahawalnagar	1.47	26	0.33	25	1.80	19
Minchinabad	Bahawalnagar	2.05	45	0.42	39	2.47	46
Khanpur	Rahim Yar Khan	3.49	78	0.38	32	3.87	77
Liaquatpur	Rahim Yar Khan	1.96	42	0.64	78	2.60	51
Rahim Yar Khan	Rahim Yar Khan	3.23	75	0.43	43	3.67	73
Sadiqabad	Rahim Yar Khan	24.74	95	0.45	46	25.19	95
Dear Ghazi Khan	Dera Ghazi Khan	3.50	79	0.42	38	3.92	78
Taunsa	Dera Ghazi Khan	2.32	56	0.28	19	2.60	52
Chobara	Layyah	29.50	97	0.51	57	30.01	97
Karor	Layyah	2.04	44	0.79	93	2.82	53
Layyah	Layyah	2.73	66	0.72	88	3.45	71
Alipur	Muzaffargarh	3.62	80	0.40	33	4.02	79
Jatoi	Muzaffargarh	4.92	84	0.57	67	5.49	84
Kot Addu	Muzaffargarh	5.53	86	0.61	73	6.15	85
Muzaffargarh	Muzaffargarh	3.91	81	0.69	86	4.60	82
Jampur	Rajanpur	9.03	87	0.53	60	9.56	87
Rajanpur	Rajanpur	3.05	73	0.70	87	3.75	75
Rojhan	Rajanpur	2.89	70	0.25	13	3.14	61
Chak Jhumra Town	Faisalabad	0.98	2	0.35	28	1.33	7
Iqbal Town	Faisalabad	NA	NA	NA	NA	NA	NA
Jinnah Town	Faisalabad	NA	NA	NA	NA	NA	NA
Lyallpur Town	Faisalabad	NA	NA	NA	NA	NA	NA
Madina Town	Faisalabad	NA	NA	NA	NA	NA	NA
Jaranwala Town	Faisalabad	1.72	34	0.54	61	2.25	37
Sammundri Town	Faisalabad	31.92	98	0.83	97	32.76	98
Tandlianwala Town	Faisalabad	2.92	71	0.44	44	3.36	69
Chiniot	Chiniot	1.66	33	0.54	63	2.21	34
Bhowana	Chiniot	NA	NA	NA	NA	NA	NA
Lalian	Chiniot	NA	NA	NA	NA	NA	NA
Ahmadpur Sial	Jhang	NA	NA	NA	NA	NA	NA
18 - Hazari	Jhang	NA	NA	NA	NA	NA	NA

Jhang	Jhang	2.71	65	0.33	24	3.04	58
Shorkot	Jhang	2.26	51	0.74	89	3.00	57
Gojra	Toba Tek Singh	12.16	91	0.40	34	12.56	91
Kamalia	Toba Tek Singh	2.11	48	0.45	48	2.56	48
Toba Tek Singh	Toba Tek Singh	41.36	100	0.26	16	41.62	100
Cantonment	Lahore	NA	NA	NA	NA	NA	NA
Aroop Town	Gujranwala	NA	NA	NA	NA	NA	NA
Khialli Shahpur Town	Gujranwala	NA	NA	NA	NA	NA	NA
Nandipur Town	Gujranwala	NA	NA	NA	NA	NA	NA
Qila Dedar Singh Town	Gujranwala	NA	NA	NA	NA	NA	NA
Naushera Virkan Town	Gujranwala	1.38	22	0.28	18	1.66	14
Kamoke Town	Gujranwala	1.19	13	0.64	79	1.83	21
Wazirabad Town	Gujranwala	1.05	7	0.51	56	1.56	10
Gujrat	Gujrat	1.41	23	0.56	65	1.97	26
Kharian	Gujrat	1.42	24	0.22	9	1.64	13
Sarai Alamgir	Gujrat	1.10	11	0.13	1	1.24	2
Hafizabad	Hafizabad	26.64	96	0.47	53	27.12	96
Pindi Bhattian	Hafizabad	46.05	102	1.10	101	47.15	102
Malakwal	Mandi Bahauddin	2.15	49	0.45	47	2.60	50
Mandi Bahauddin	Mandi Bahauddin	1.75	35	0.35	29	2.10	29
Phalia	Mandi Bahauddin	1.76	36	0.41	37	2.17	32
Narowal	Narowal	1.56	29	0.55	64	2.11	30
Shakargarh	Narowal	1.34	18	0.58	71	1.92	24
Zafarwal	Narowal	NA	NA	NA	NA	NA	NA
Daska	Sialkot	1.07	8	0.53	59	1.59	11
Pasrur	Sialkot	1.63	31	0.54	62	2.16	31
Sambrial	Sialkot	NA	NA	NA	NA	NA	NA
Sialkot	Sialkot	16.27	92	0.68	84	16.95	92
Aziz Bhatti Town	Lahore	NA	NA	NA	NA	NA	NA
Data Ganj Bakhsh Town	Lahore	NA	NA	NA	NA	NA	NA
Gulberg Town	Lahore	NA	NA	NA	NA	NA	NA
Iqbal Town	Lahore	NA	NA	NA	NA	NA	NA
Nishtar Town	Lahore	NA	NA	NA	NA	NA	NA
Ravi Town	Lahore	NA	NA	NA	NA	NA	NA
Samanabad Town	Lahore	NA	NA	NA	NA	NA	NA
Shalimar Town	Lahore	NA	NA	NA	NA	NA	NA
Wagha Town	Lahore	NA	NA	NA	NA	NA	NA
Chunian	Kasur	2.27	53	0.16	3	2.43	44
Kasur	Kasur	2.82	68	0.16	4	2.97	55
Kot Radha Kishan	Kasur	NA	NA	NA	NA	NA	NA
Pattoki	Kasur	2.31	55	0.28	20	2.59	49
Shahkot	Nankana Sahib	NA	NA	NA	NA	NA	NA
Sangla Hill	Nankana Sahib	NA	NA	NA	NA	NA	NA
Nankana Sahib	Nankana Sahib	NA	NA	NA	NA	NA	NA
Ferozewala	Sheikhupura	NA	NA	NA	NA	NA	NA
Muridke	Sheikhupura	NA	NA	NA	NA	NA	NA
Safdarabad	Nankana Sahib	NA	NA	NA	NA	NA	NA
Sharaqpur	Sheikhupura	NA	NA	NA	NA	NA	NA

Sheikhupura	Sheikhupura	NA	NA	NA	NA	NA	NA
Bosan Town	Multan	NA	NA	NA	NA	NA	NA
Mousa Pak (Shaheed) Town	Multan	NA	NA	NA	NA	NA	NA
Shah Rukn-E-Alam Town	Multan	NA	NA	NA	NA	NA	NA
Sher Shah Town	Multan	NA	NA	NA	NA	NA	NA
Jalalpur Pirwala Town	Multan	11.34	90	0.42	41	11.77	90
Shujabad Town	Multan	5.44	85	0.90	98	6.34	86
Jahanian	Khanewal	2.47	59	0.78	91	3.24	64
Kabirwala	Khanewal	2.99	72	0.77	90	3.76	76
Khanewal	Khanewal	23.16	93	0.98	100	24.14	93
Mian Channu	Khanewal	2.40	57	0.83	96	3.23	62
Dunyapur	Lodhran	2.09	47	0.22	8	2.31	40
Karor Pacca	Lodhran	3.39	76	0.30	22	3.69	74
Lodhran	Lodhran	3.07	74	0.20	7	3.26	66
Burewala	Vehari	2.20	50	0.22	10	2.42	43
Mailsi	Vehari	2.61	63	0.96	99	3.57	72
Vehari	Vehari	2.78	67	0.50	54	3.28	67
Gujar Khan Town	Rawalpindi	1.33	17	0.60	72	1.93	25
Kahuta Town	Rawalpindi	1.51	28	0.27	17	1.78	16
Kallar Sayedan Town	Rawalpindi	NA	NA	NA	NA	NA	NA
Kotli Sattian Town	Rawalpindi	24.63	94	0.51	55	25.14	94
Murree Town	Rawalpindi	2.57	62	0.67	82	3.24	63
Taxila Town	Rawalpindi	1.38	21	0.42	40	1.80	20
Potohar Town	Rawalpindi	NA	NA	NA	NA	NA	NA
Rawal Town	Rawalpindi	NA	NA	NA	NA	NA	NA
Attock	Attock	0.96	1	0.35	27	1.31	5
Fateh Jang	Attock	1.61	30	0.68	85	2.29	39
Hazro	Attock	NA	NA	NA	NA	NA	NA
Hassanabdal	Attock	1.16	12	0.67	81	1.83	22
Jand	Attock	1.22	14	0.57	66	1.78	17
Pindi Gheb	Attock	1.07	9	0.17	5	1.24	3
Chakwal	Chakwal	35.06	99	0.45	49	35.51	99
Choa Saiden Shah	Chakwal	1.08	10	0.13	2	1.21	1
Kalar Kahar	Chakwal	NA	NA	NA	NA	NA	NA
Talagang	Chakwal	1.05	6	0.25	14	1.30	4
Dina	Jhelum	NA	NA	NA	NA	NA	NA
Jhelum	Jhelum	0.99	3	0.61	75	1.60	12
Pind Dadan Khan	Jhelum	NA	NA	NA	NA	NA	NA
Sohawa	Jhelum	1.01	4	0.31	23	1.32	6
Chichawatni	Sahiwal	2.52	60	0.78	92	3.30	68
Sahiwal	Sahiwal	2.62	64	0.63	76	3.25	65
Depalpur	Okara	9.64	88	0.35	30	9.99	88
Okara	Okara	4.06	83	0.63	77	4.69	83
Renala Khurd	Okara	3.95	82	0.25	12	4.19	81
Arifwala	Pakpattan	2.84	69	0.58	70	3.42	70
Pakpattan	Pakpattan	44.84	101	0.66	80	45.49	101
Bhalwal	Sargodha	1.28	16	0.23	11	1.51	9
Kot Momin	Sargodha	NA	NA	NA	NA	NA	NA

Sahiwal	Sargodha	1.89	41	0.53	58	2.41	42
Sargodha	Sargodha	1.79	37	0.45	45	2.23	36
Shahpur	Sargodha	2.08	46	0.29	21	2.37	41
Sillanwali	Sargodha	1.83	40	0.26	15	2.08	28
Bhakkar	Bhakkar	1.82	38	0.41	36	2.23	35
Darya Khan	Bhakkar	2.03	43	0.46	50	2.49	47
Kalur Kot	Bhakkar	1.44	25	0.35	26	1.79	18
Mankera	Bhakkar	2.28	54	0.18	6	2.46	45
Khushab	Khushab	1.03	5	0.37	31	1.40	8
Nurpur Thal	Khushab	1.49	27	0.43	42	1.92	23
Qaidabad	Khushab	NA	NA	NA	NA	NA	NA
Isa Khel	Mianwali	1.66	32	1.31	102	2.98	56
Mianwali	Mianwali	1.23	15	0.81	94	2.03	27
Piplan	Mianwali	1.36	19	0.83	95	2.19	33

District Score Cards

Bahawalpur

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	95.1%	95.2%	88.3%	86.9%	76.9%	88.5%
	Rural	97.7%	98.8%	99.5%	99.4%	99.6%	99.0%
	Overall	98.0%	99.0%	98.5%	97.3%	86.1%	95.8%
Access to Piped Water	Urban	3.1%	27.2%	21.2%	17.7%	11.9%	15.1%
	Rural	1.6%	5.8%	10.3%	22.9%	24.0%	9.3%
	Overall	1.6%	6.9%	12.4%	20.7%	13.8%	11.1%
Improved Sanitation	Urban	62.9%	72.8%	94.2%	97.0%	99.8%	85.4%
	Rural	4.5%	21.3%	47.7%	77.6%	86.3%	47.5%
	Overall	7.7%	37.1%	72.9%	82.4%	95.4%	59.1%
Open Defecation	Urban	66.7%	34.9%	4.6%	0.9%	0.0%	2.6%
	Rural	91.1%	58.9%	18.0%	1.2%	0.0%	46.4%
	Overall	90.8%	57.7%	15.4%	1.1%	0.0%	33.0%
Water and Soap Available for Hand Washing	Urban	20.5%	42.9%	50.9%	73.5%	92.9%	79.6%
	Rural	21.5%	32.6%	60.0%	87.4%	97.0%	47.5%
	Overall	21.5%	33.1%	58.2%	81.4%	93.6%	57.2%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Ahmadpur East	99.6%	99.8%	96.8%	98.8%
	Bahawalpur City	97.3%	86.4%	81.6%	88.5%
	Bahawalpur Sadar	100.0%	100.0%	99.5%	99.8%
	Hasilpur	98.5%	98.3%	91.3%	96.0%
	Khairpur Tamewali	96.1%	97.2%	99.4%	97.6%
	Yazman	94.7%	98.3%	99.0%	97.3%
Access to Piped Water	Ahmadpur East	2.2%	1.2%	4.4%	2.6%
	Bahawalpur City	4.4%	3.8%	9.5%	5.9%
	Bahawalpur Sadar	0.9%	2.6%	14.5%	6.0%
	Hasilpur	9.2%	32.5%	40.3%	27.2%
	Khairpur Tamewali	1.0%	1.6%	8.1%	3.5%
	Yazman	1.1%	20.9%	49.7%	23.9%
Improved Sanitation	Ahmadpur East	8.8%	51.0%	81.9%	47.0%
	Bahawalpur City	53.8%	97.0%	100.0%	83.4%
	Bahawalpur Sadar	22.9%	64.6%	92.9%	59.8%
	Hasilpur	18.8%	74.6%	80.9%	57.9%
	Khairpur Tamewali	15.3%	34.5%	59.6%	36.5%
	Yazman	6.8%	64.6%	94.7%	54.9%
Open Defecation	Ahmadpur East	89.5%	43.8%	1.7%	45.0%
	Bahawalpur City	30.4%	1.2%	0.0%	10.6%
	Bahawalpur Sadar	75.1%	29.3%	1.0%	35.2%
	Hasilpur	76.9%	11.0%	0.7%	29.7%
	Khairpur Tamewali	77.7%	46.2%	4.8%	43.1%
	Yazman	92.4%	34.4%	0.3%	42.4%
Water and Soap Available for Hand Washing	Ahmadpur East	23.2%	26.4%	72.6%	39.8%
	Bahawalpur City	43.6%	83.5%	99.0%	74.9%
	Bahawalpur Sadar	27.9%	69.7%	92.5%	61.6%
	Hasilpur	28.2%	68.1%	92.7%	62.4%
	Khairpur Tamewali	15.7%	38.0%	69.4%	41.0%
	Yazman	18.1%	60.7%	90.8%	58.4%

Indices	District		Tehsils				
	Bahawalpur	Ahmadpur East	Bahawalpur City	Bahawalpur Sadar	Hasilpur	Khairpur Tamewali	Yazman
Exposure Index	1.58	3.47	NA	NA	2.27	2.56	1.36
Susceptibility Index	0.55	0.57	0.53	0.68	0.61	0.58	0.40
Sanitation Index	2.13	4.05	NA	NA	2.88	3.14	1.76

Figure 6 - Improved water in district Bahawalpur

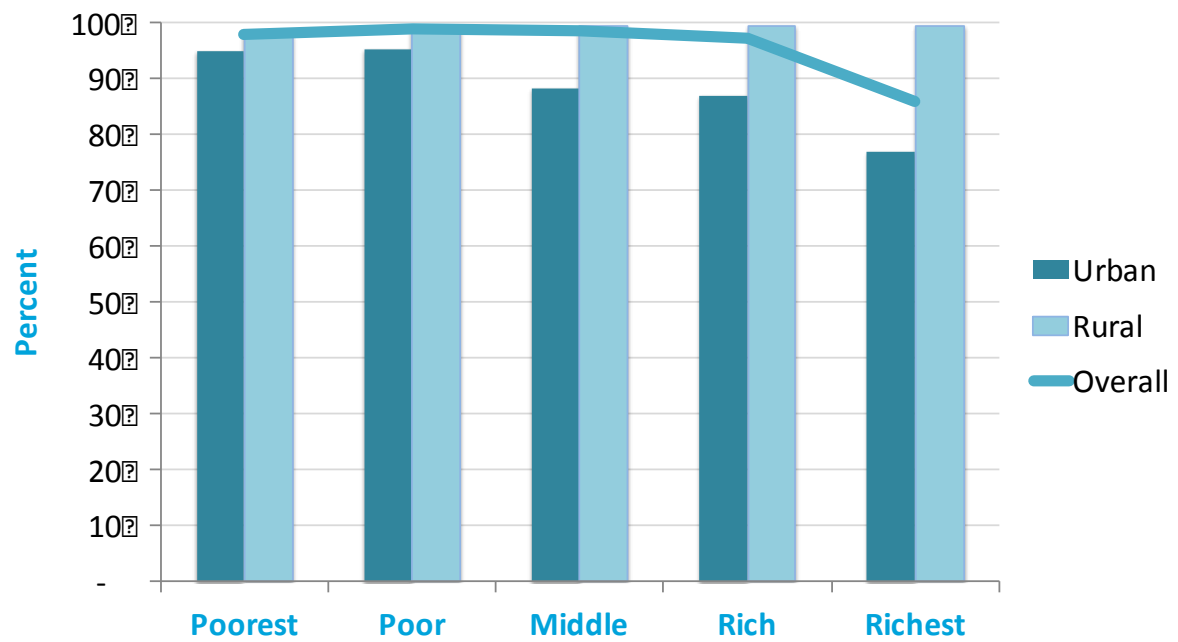
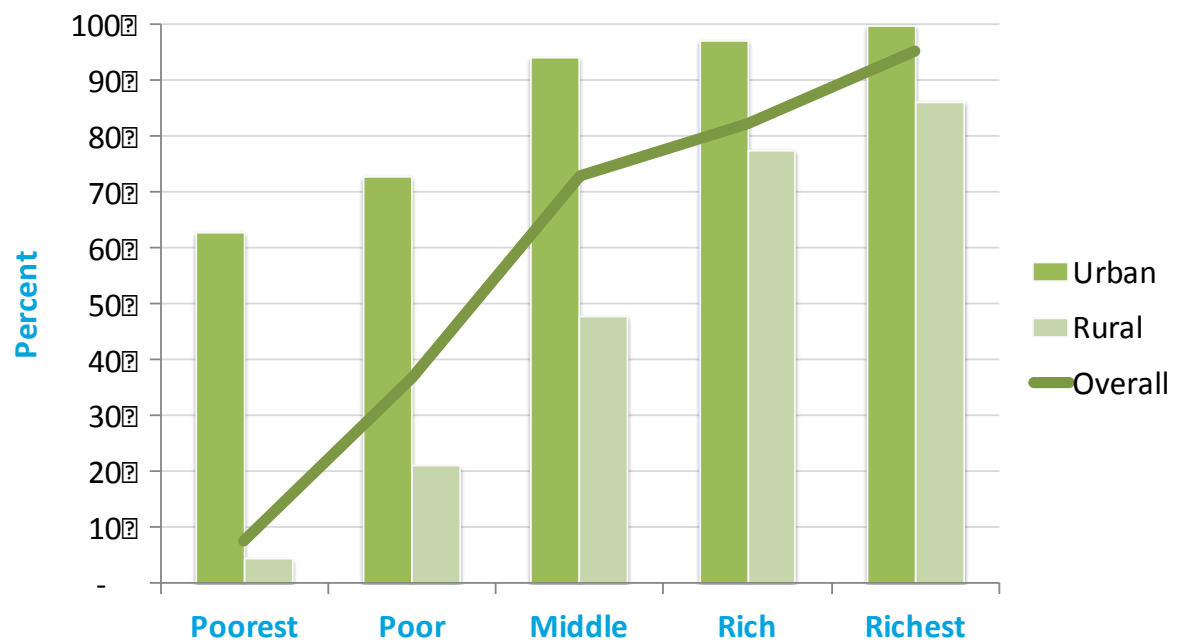


Figure 7 - Improved sanitation in district Bahawalpur



Bahawalnagar

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	95.5%	95.3%	90.4%	84.8%	68.4%	86.9%
	Rural	93.8%	91.3%	94.6%	93.8%	95.0%	93.7%
	Overall	94.1%	91.8%	94.9%	93.9%	86.8%	92.3%
Access to Piped Water	Urban	24.5%	57.2%	60.2%	70.1%	60.5%	62.2%
	Rural	20.2%	37.1%	44.8%	49.4%	58.7%	39.3%
	Overall	20.3%	37.8%	46.7%	54.8%	59.7%	43.9%
Improved Sanitation	Urban	66.4%	84.5%	80.5%	91.6%	92.8%	83.2%
	Rural	5.3%	26.4%	67.9%	90.7%	99.5%	58.0%
	Overall	6.5%	40.4%	80.2%	93.9%	94.0%	63.0%
Open Defecation	Urban	84.6%	28.3%	2.2%	0.0%	0.0%	2.9%
	Rural	92.9%	58.0%	17.0%	1.4%	0.4%	40.8%
	Overall	92.7%	56.9%	15.2%	1.0%	0.2%	33.2%
Water and Soap Available for Hand Washing	Urban	38.4%	62.1%	81.0%	89.0%	95.9%	89.8%
	Rural	47.3%	69.6%	86.6%	90.9%	96.8%	73.8%
	Overall	47.2%	69.3%	85.9%	90.4%	96.2%	77.1%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Bahawalnagar	93.9%	96.0%	83.4%	91.1%
	Chishtian	98.1%	97.3%	88.3%	94.6%
	Fort Abbas	80.5%	85.6%	98.4%	88.1%
	Haroonabad	88.5%	95.1%	89.6%	91.0%
	Minchinabad	98.1%	92.5%	98.4%	96.3%
Access to Piped Water	Bahawalnagar	22.8%	45.3%	59.0%	42.3%
	Chishtian	35.7%	61.0%	65.6%	54.1%
	Fort Abbas	26.5%	35.9%	36.7%	33.0%
	Haroonabad	46.1%	66.5%	67.1%	59.9%
	Minchinabad	13.2%	31.1%	29.5%	24.6%
Improved Sanitation	Bahawalnagar	6.4%	60.6%	87.5%	51.1%
	Chishtian	24.4%	83.0%	94.8%	67.3%
	Fort Abbas	32.4%	93.1%	100.0%	74.9%
	Haroonabad	37.1%	96.6%	99.3%	77.4%
	Minchinabad	8.0%	58.9%	86.8%	50.9%
Open Defecation	Bahawalnagar	93.5%	35.4%	0.0%	43.1%
	Chishtian	73.4%	11.4%	0.0%	28.3%
	Fort Abbas	66.8%	6.6%	0.0%	24.5%
	Haroonabad	61.8%	3.1%	0.5%	22.0%
	Minchinabad	90.0%	37.1%	2.8%	43.4%
Water and Soap Available for Hand Washing	Bahawalnagar	55.4%	74.9%	93.5%	74.1%
	Chishtian	64.8%	85.7%	97.4%	82.1%
	Fort Abbas	62.6%	91.3%	96.5%	82.7%
	Haroonabad	65.7%	89.3%	94.8%	83.0%
	Minchinabad	36.0%	71.0%	91.4%	65.2%

Indices	District		Tehsils			
	Bahawalnagar	Bahawalnagar	Chishtian	Fort Abbas	Haroonabad	Minchinabad
Exposure Index	1.74	2.45	1.82	10.63	1.47	2.05
Susceptibility Index	0.49	0.68	0.47	0.46	0.33	0.42
Sanitation Index	2.23	3.12	2.29	11.09	1.80	2.47

Figure 8 - Improved water in district Bahawalnagar

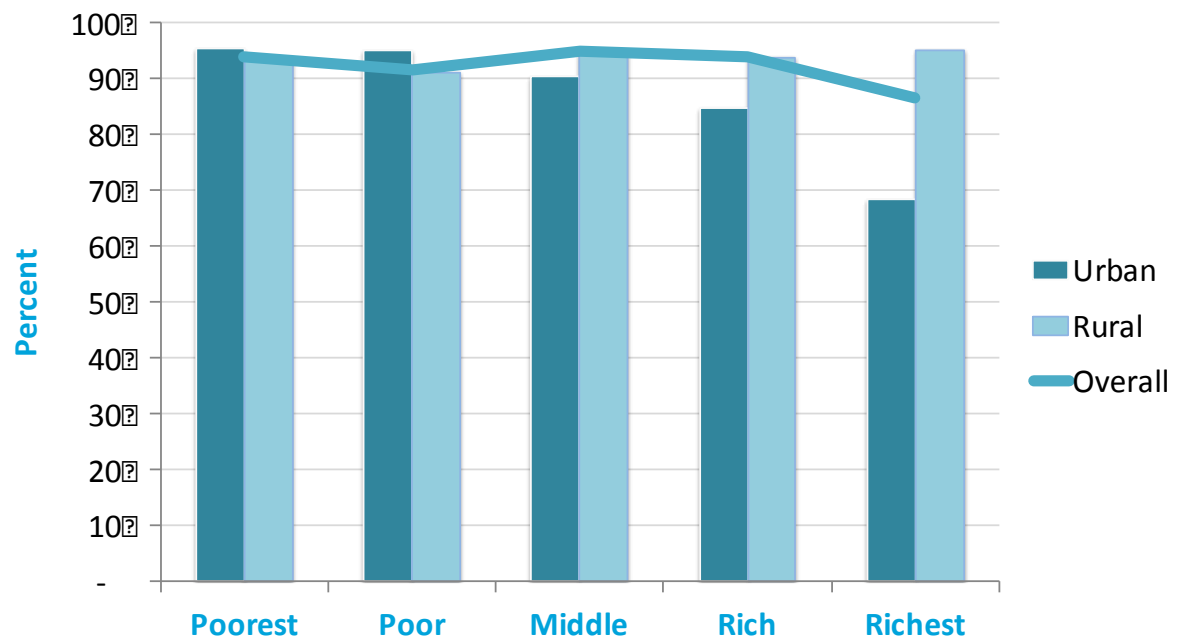
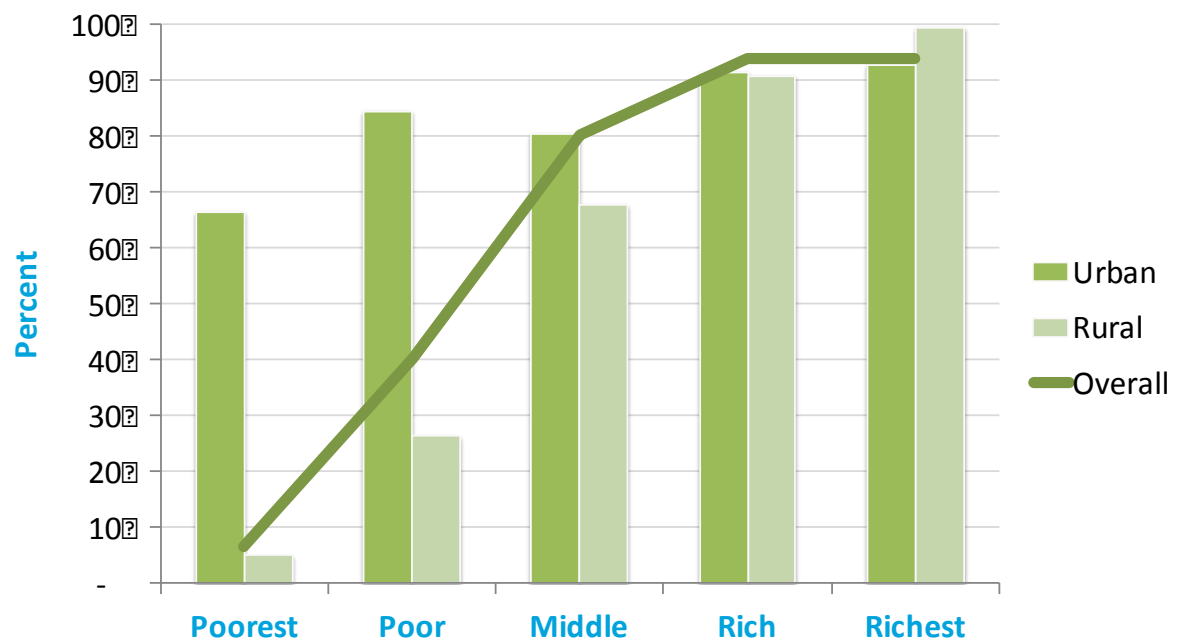


Figure 9 - Improved sanitation in district Bahawalnagar



Rahim Yar Khan

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	91.5%	88.7%	83.1%	80.3%	62.6%	81.2%
	Rural	99.0%	99.3%	99.7%	98.8%	97.2%	98.8%
	Overall	99.2%	99.1%	98.6%	96.4%	82.2%	95.1%
Access to Piped Water	Urban	0.0%	13.8%	7.3%	19.0%	15.7%	15.5%
	Rural	2.6%	4.5%	7.4%	14.9%	11.6%	7.3%
	Overall	2.5%	4.9%	7.4%	15.7%	14.5%	9.0%
Improved Sanitation	Urban	64.4%	92.6%	86.5%	95.9%	98.4%	87.5%
	Rural	9.2%	28.5%	56.1%	82.7%	88.4%	53.0%
	Overall	12.8%	36.6%	72.7%	87.1%	91.9%	60.3%
Open Defecation	Urban	89.6%	50.3%	3.8%	0.3%	0.0%	3.4%
	Rural	85.2%	56.9%	17.7%	1.7%	0.0%	39.7%
	Overall	85.3%	56.7%	16.7%	1.4%	0.0%	32.0%
Water and Soap Available for Hand Washing	Urban	37.7%	52.5%	73.7%	79.3%	96.2%	88.7%
	Rural	17.5%	26.9%	50.8%	81.2%	94.4%	44.7%
	Overall	17.8%	27.9%	52.7%	80.8%	95.7%	54.2%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Khanpur	100.0%	100.0%	98.1%	99.4%
	Liaquatpur	99.4%	99.5%	90.9%	96.6%
	Rahim Yar Khan	98.7%	99.0%	86.8%	94.9%
	Sadiqabad	98.8%	96.2%	78.6%	91.3%
Access to Piped Water	Khanpur	1.2%	5.8%	7.0%	4.7%
	Liaquatpur	1.9%	12.1%	18.6%	10.8%
	Rahim Yar Khan	2.9%	8.1%	9.9%	7.0%
	Sadiqabad	3.3%	10.8%	24.4%	12.8%
Improved Sanitation	Khanpur	30.0%	73.5%	78.7%	60.5%
	Liaquatpur	19.2%	52.1%	78.4%	49.6%
	Rahim Yar Khan	26.1%	83.4%	95.8%	68.0%
	Sadiqabad	11.9%	72.2%	97.4%	60.0%
Open Defecation	Khanpur	65.9%	11.1%	0.2%	25.7%
	Liaquatpur	77.4%	32.6%	2.1%	37.4%
	Rahim Yar Khan	71.0%	12.6%	0.0%	27.9%
	Sadiqabad	85.3%	24.1%	0.3%	36.6%
Water and Soap Available for Hand Washing	Khanpur	35.1%	64.8%	94.3%	63.8%
	Liaquatpur	30.0%	42.5%	82.8%	50.4%
	Rahim Yar Khan	12.5%	54.4%	93.8%	53.8%
	Sadiqabad	8.6%	55.2%	90.8%	50.2%

Indices	District			Tehsils	
	Rahim Yar Khan	Khanpur	Liaquatpur	Rahim Yar Khan	Sadiqabad
Exposure Index	2.45	3.49	1.96	3.23	24.74
Susceptibility Index	0.51	0.38	0.64	0.43	0.45
Sanitation Index	2.96	3.87	2.60	3.67	25.19

Figure 10 - Improved water in district Rahim Yar Khan

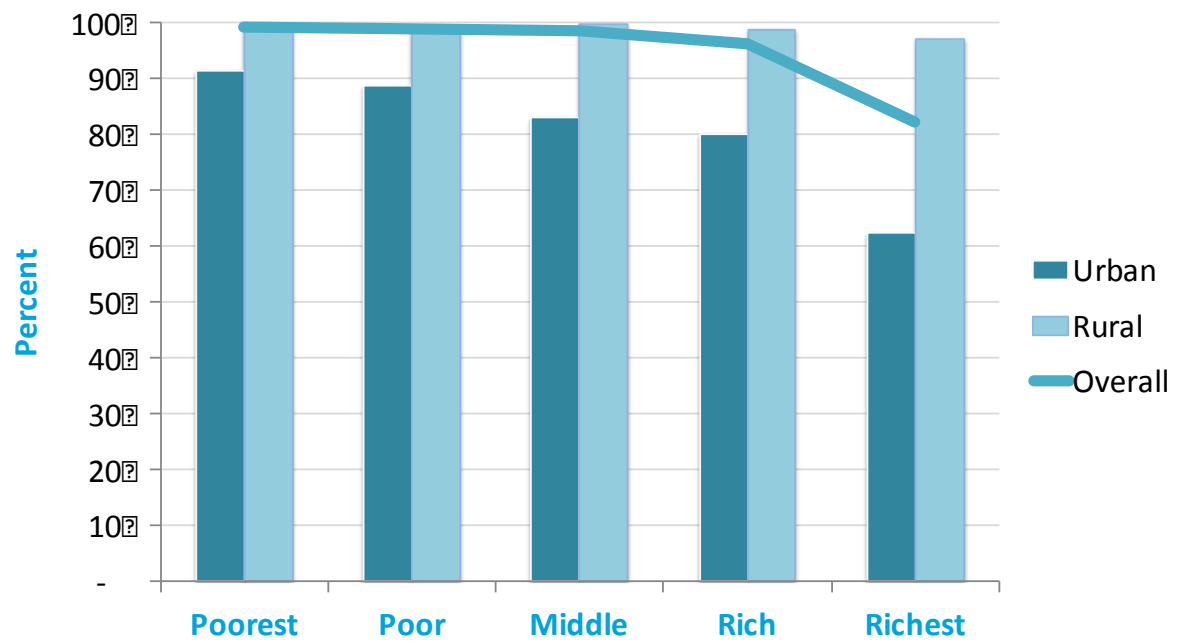
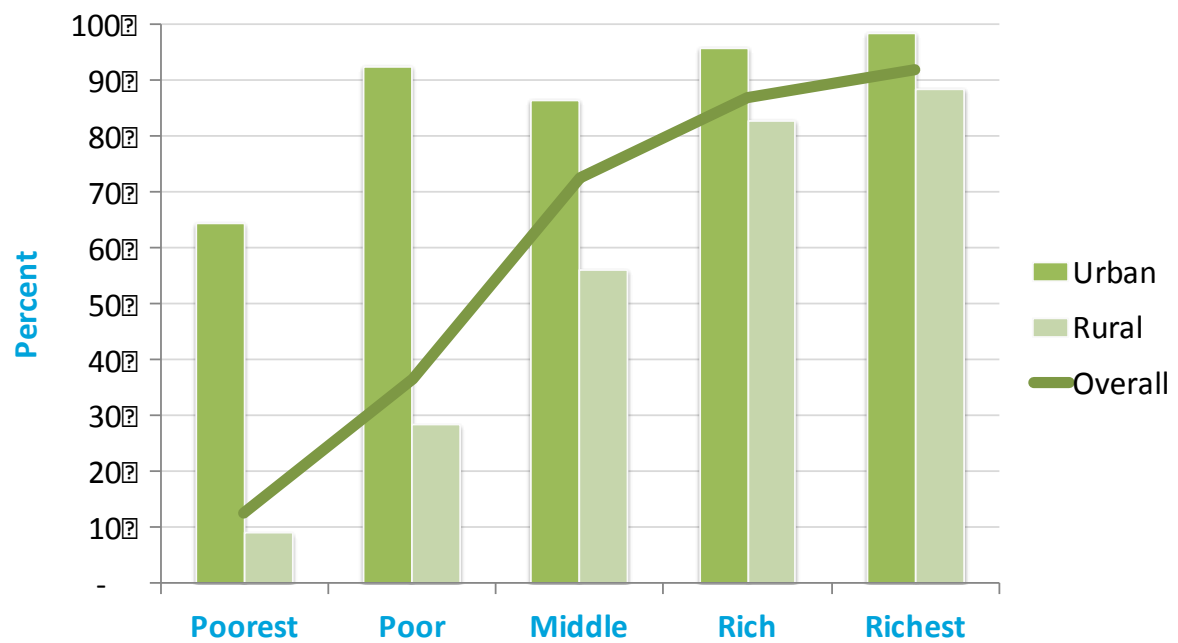


Figure 11 - Improved sanitation in district Rahim Yar Khan



Dera Ghazi Khan

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	85.6%	76.4%	66.1%	32.5%	27.1%	57.5%
	Rural	65.8%	89.8%	95.4%	98.4%	99.5%	89.8%
	Overall	67.2%	92.5%	98.3%	97.1%	68.0%	84.7%
Access to Piped Water	Urban	.%	100.0%	62.7%	38.0%	44.0%	43.4%
	Rural	3.6%	13.1%	20.4%	18.5%	23.5%	14.5%
	Overall	3.6%	13.2%	20.7%	20.7%	37.2%	19.1%
Improved Sanitation	Urban	57.5%	74.4%	82.6%	91.9%	99.1%	81.1%
	Rural	4.5%	6.7%	20.2%	53.1%	86.4%	34.3%
	Overall	4.3%	10.5%	32.8%	70.6%	89.7%	41.7%
Open Defecation	Urban	.%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rural	95.2%	83.8%	56.1%	18.9%	0.0%	59.8%
	Overall	95.2%	83.7%	55.7%	16.8%	0.0%	50.3%
Water and Soap Available for Hand Washing	Urban	.%	0.0%	0.0%	32.6%	81.0%	73.1%
	Rural	24.4%	19.4%	26.1%	41.7%	54.3%	29.5%
	Overall	24.4%	19.4%	26.0%	40.7%	72.7%	36.3%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Dera Ghazi Khan	75.4%	96.9%	73.5%	81.9%
	Taunsa	83.3%	100.0%	99.2%	94.1%
Access to Piped Water	Dera Ghazi Khan	0.4%	3.8%	18.5%	7.6%
	Taunsa	39.7%	61.8%	71.6%	57.6%
Improved Sanitation	Dera Ghazi Khan	5.0%	38.9%	84.7%	42.5%
	Taunsa	2.9%	33.0%	81.6%	38.9%
Open Defecation	Dera Ghazi Khan	93.7%	53.2%	4.2%	50.4%
	Taunsa	94.6%	50.7%	3.8%	50.0%
Water and Soap Available for Hand Washing	Dera Ghazi Khan	27.2%	31.3%	64.0%	40.4%
	Taunsa	2.7%	11.5%	49.1%	21.3%

Indices	District	Tehsils	
	Dera Ghazi Khan	Dera Ghazi Khan	Taunsa
Exposure Index	2.47	3.50	2.32
Susceptibility Index	0.40	0.42	0.28
Sanitation Index	2.87	3.92	2.60

Figure 12 - Improved water in district Dera Ghazi Khan

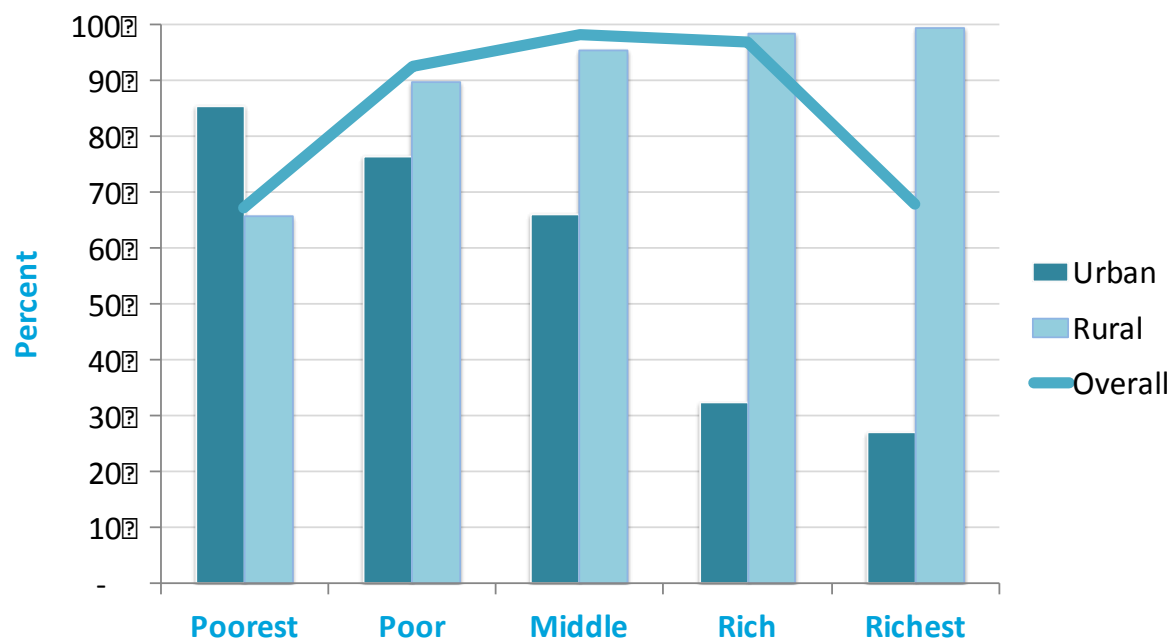
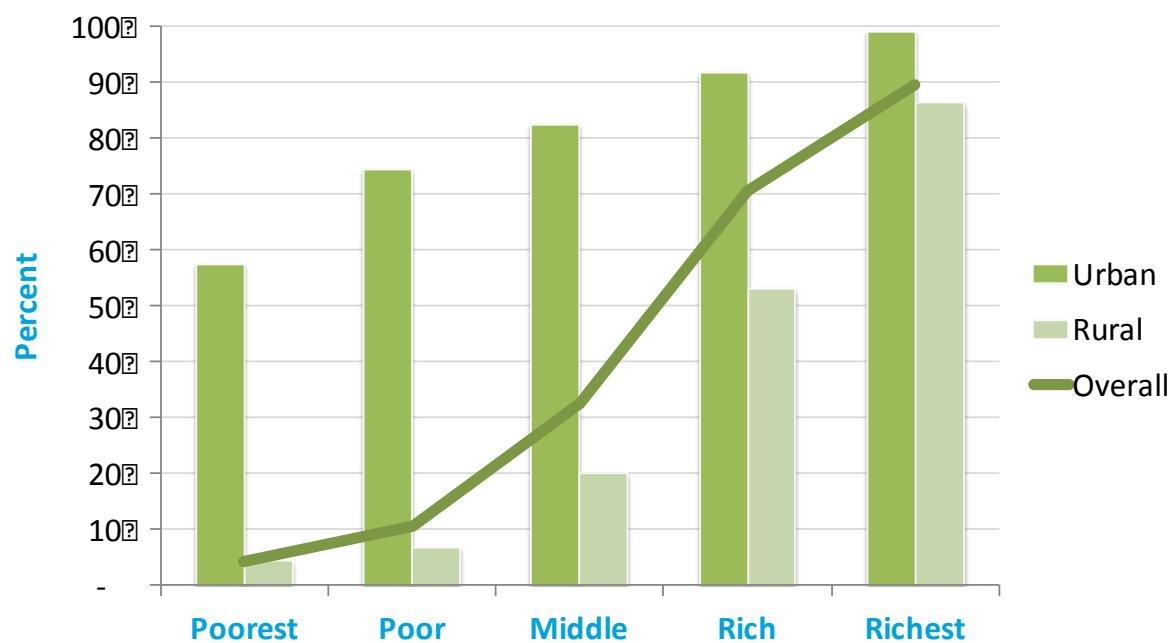


Figure 13 - Improved sanitation in district Dera Ghazi Khan



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	100.0%	100.0%	99.5%	99.3%	97.8%	99.3%
	Rural	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Overall	100.0%	100.0%	100.0%	100.0%	99.6%	99.9%
Access to Piped Water	Urban	11.0%	0.0%	0.0%	0.0%	0.6%	0.6%
	Rural	0.0%	0.0%	0.1%	0.2%	0.3%	0.1%
	Overall	0.1%	0.0%	0.1%	0.2%	0.5%	0.2%
Improved Sanitation	Urban	71.1%	83.9%	87.5%	89.5%	97.1%	85.8%
	Rural	7.3%	23.9%	51.5%	92.3%	99.5%	55.0%
	Overall	8.0%	28.9%	67.3%	95.1%	94.7%	58.9%
Open Defecation	Urban	100.0%	100.0%	8.5%	0.0%	0.0%	1.9%
	Rural	90.9%	70.5%	31.3%	2.9%	0.0%	44.3%
	Overall	91.0%	70.6%	30.6%	2.6%	0.0%	39.0%
Water and Soap Available for Hand Washing	Urban	0.0%	0.0%	24.9%	42.5%	84.3%	74.0%
	Rural	36.8%	46.4%	62.1%	76.4%	97.9%	59.5%
	Overall	36.5%	46.3%	60.8%	73.1%	90.5%	61.5%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Chobara	100.0%	100.0%	100.0%	100.0%
	Karor	100.0%	100.0%	99.6%	99.9%
	Layyah	100.0%	100.0%	99.7%	99.9%
Access to Piped Water	Chobara	0.0%	0.0%	1.0%	0.3%
	Karor	0.2%	0.0%	0.0%	0.1%
	Layyah	0.0%	0.0%	0.4%	0.1%
Improved Sanitation	Chobara	5.9%	36.6%	90.4%	44.1%
	Karor	29.2%	86.5%	93.6%	69.4%
	Layyah	15.4%	77.2%	96.3%	62.5%
Open Defecation	Chobara	93.2%	63.3%	9.7%	55.5%
	Karor	70.3%	12.5%	0.0%	27.7%
	Layyah	84.9%	18.8%	0.0%	34.6%
Water and Soap Available for Hand Washing	Chobara	37.8%	45.5%	71.6%	51.4%
	Karor	33.5%	55.8%	90.7%	59.6%
	Layyah	49.8%	67.5%	88.9%	68.6%

Indices	District	Tehsils		
	Layyah	Chobara	Karor	Layyah
Exposure Index	2.24	29.50	2.04	2.73
Susceptibility Index	0.70	0.51	0.79	0.72
Sanitation Index	2.94	30.01	2.82	3.45

Figure 14 - Improved water in district Layyah

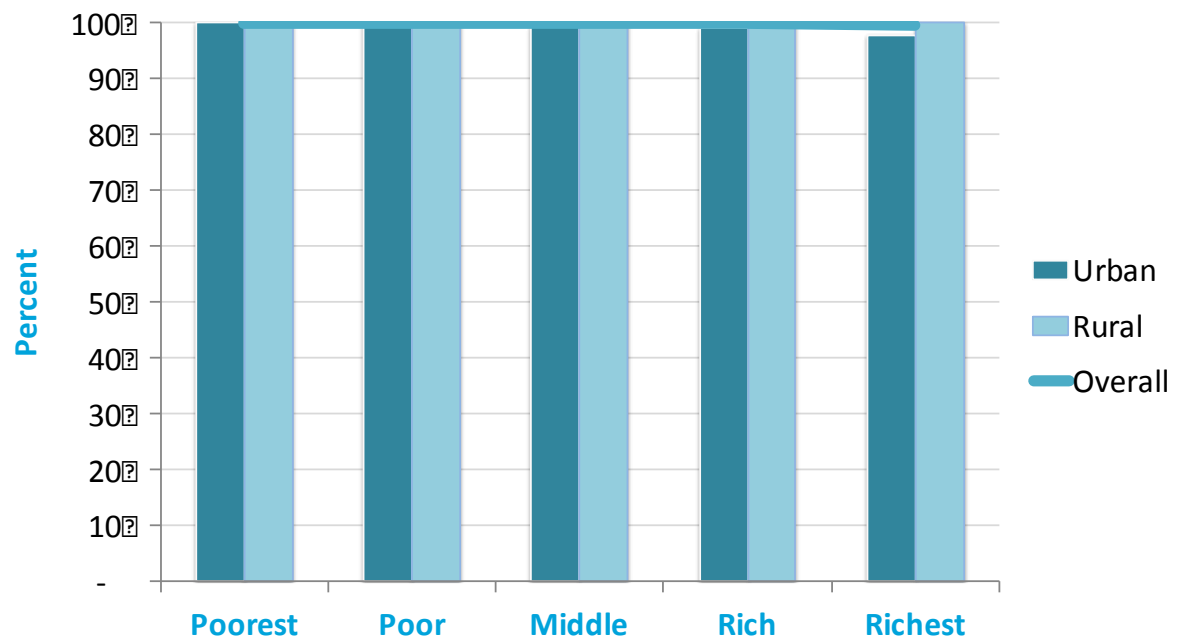
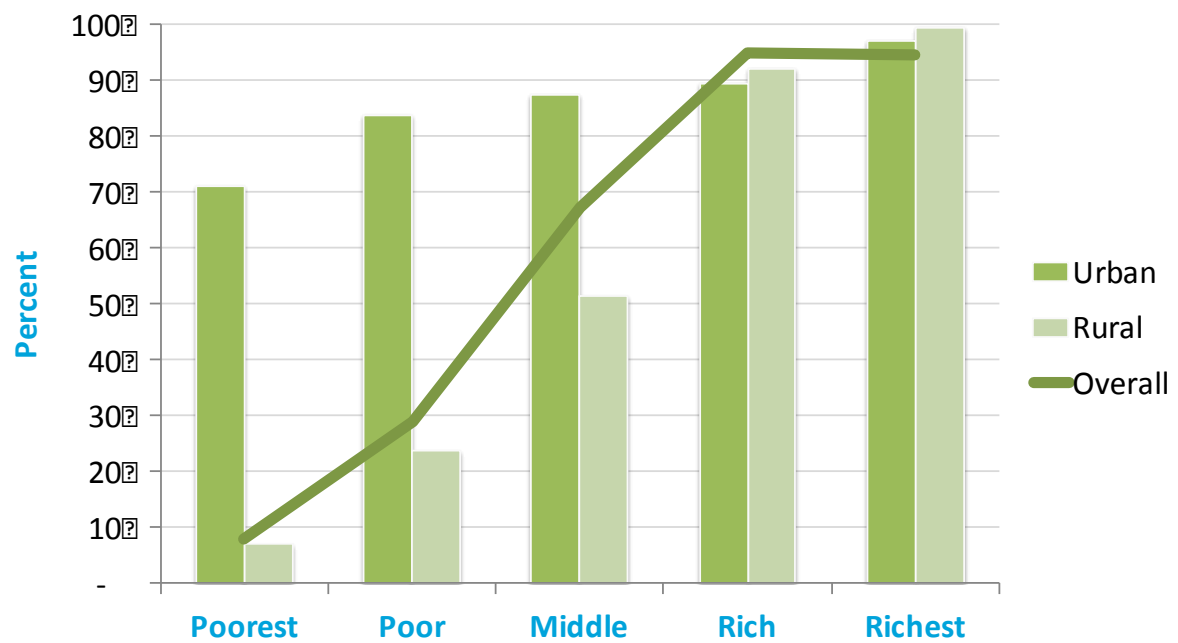


Figure 15 - Improved sanitation in district Layyah



Muzaffargarh

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	99.5%	99.0%	98.7%	92.0%	85.5%	94.9%
	Rural	100.0%	99.8%	96.6%	96.9%	99.1%	98.5%
	Overall	99.9%	99.9%	97.0%	97.1%	96.5%	98.1%
Access to Piped Water	Urban	0.0%	0.0%	0.0%	0.0%	3.4%	2.4%
	Rural	5.1%	1.6%	0.1%	0.2%	0.0%	1.6%
	Overall	5.0%	1.6%	0.1%	0.2%	1.4%	1.7%
Improved Sanitation	Urban	60.1%	89.1%	92.5%	93.8%	97.7%	86.7%
	Rural	2.5%	11.3%	29.8%	67.9%	91.6%	40.7%
	Overall	3.8%	13.7%	41.9%	77.5%	93.4%	46.1%
Open Defecation	Urban	90.5%	81.9%	23.3%	1.9%	0.0%	6.3%
	Rural	95.4%	85.2%	54.9%	21.0%	4.9%	57.1%
	Overall	95.3%	85.1%	53.4%	19.2%	2.9%	51.2%
Water and Soap Available for Hand Washing	Urban	62.0%	58.3%	72.1%	79.0%	92.1%	86.5%
	Rural	36.4%	41.0%	47.0%	73.2%	89.4%	52.8%
	Overall	36.6%	41.4%	48.4%	73.9%	90.7%	57.2%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Alipur	100.0%	100.0%	98.6%	99.5%
	Jatoi	99.8%	100.0%	100.0%	99.9%
	Kot Addu	100.0%	99.9%	98.3%	99.4%
	Muzaffargarh	99.8%	93.3%	95.8%	96.3%
Access to Piped Water	Alipur	1.4%	0.4%	1.5%	1.1%
	Jatoi	0.0%	0.0%	0.0%	0.0%
	Kot Addu	0.0%	0.0%	0.1%	0.0%
	Muzaffargarh	8.1%	0.5%	1.3%	3.3%
Improved Sanitation	Alipur	2.1%	28.8%	84.4%	38.2%
	Jatoi	3.7%	13.7%	76.7%	31.2%
	Kot Addu	18.1%	64.0%	91.4%	57.5%
	Muzaffargarh	3.1%	43.2%	90.5%	45.2%
Open Defecation	Alipur	96.1%	68.4%	9.6%	58.0%
	Jatoi	94.7%	85.9%	21.3%	67.4%
	Kot Addu	81.5%	31.6%	6.2%	39.8%
	Muzaffargarh	96.3%	53.7%	5.6%	52.0%
Water and Soap Available for Hand Washing	Alipur	44.2%	43.8%	77.1%	54.6%
	Jatoi	32.2%	35.3%	67.5%	44.2%
	Kot Addu	34.7%	49.1%	88.9%	57.5%
	Muzaffargarh	40.1%	59.5%	89.4%	61.6%

Indices	District		Tehsils		
	Muzaffargarh	Alipur	Jatoi	Kot Addu	Muzaffargarh
Exposure Index	3.38	3.62	4.92	5.53	3.91
Susceptibility Index	0.61	0.40	0.57	0.61	0.69
Sanitation Index	3.99	4.02	5.49	6.15	4.60

Figure 16 - Improved water in district Muzaffargarh

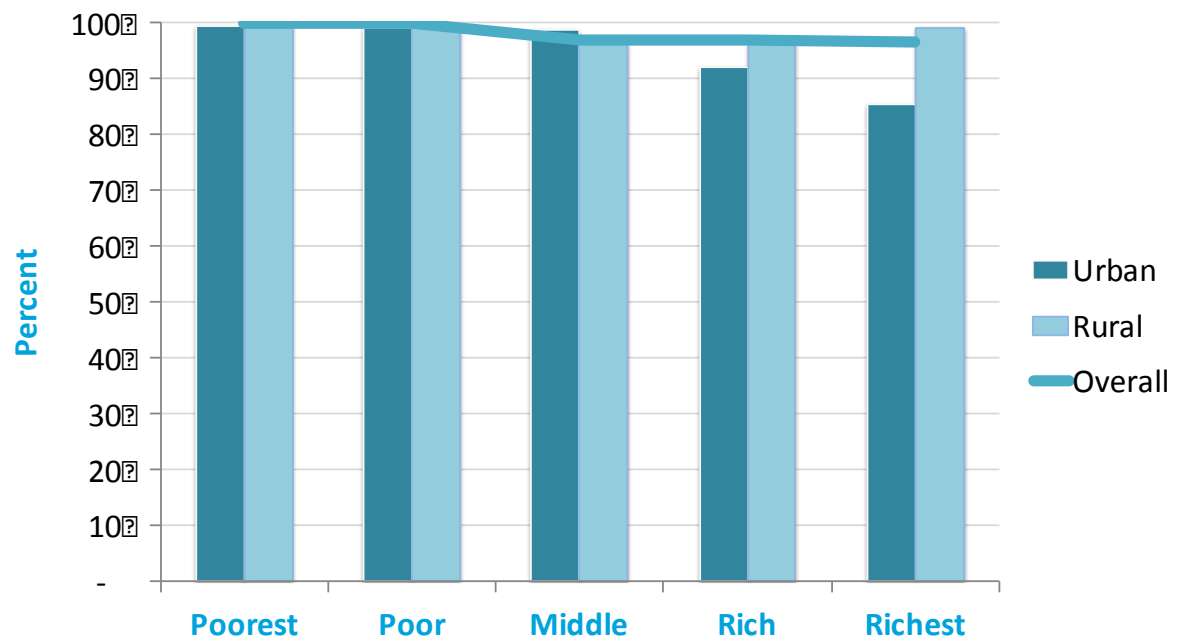
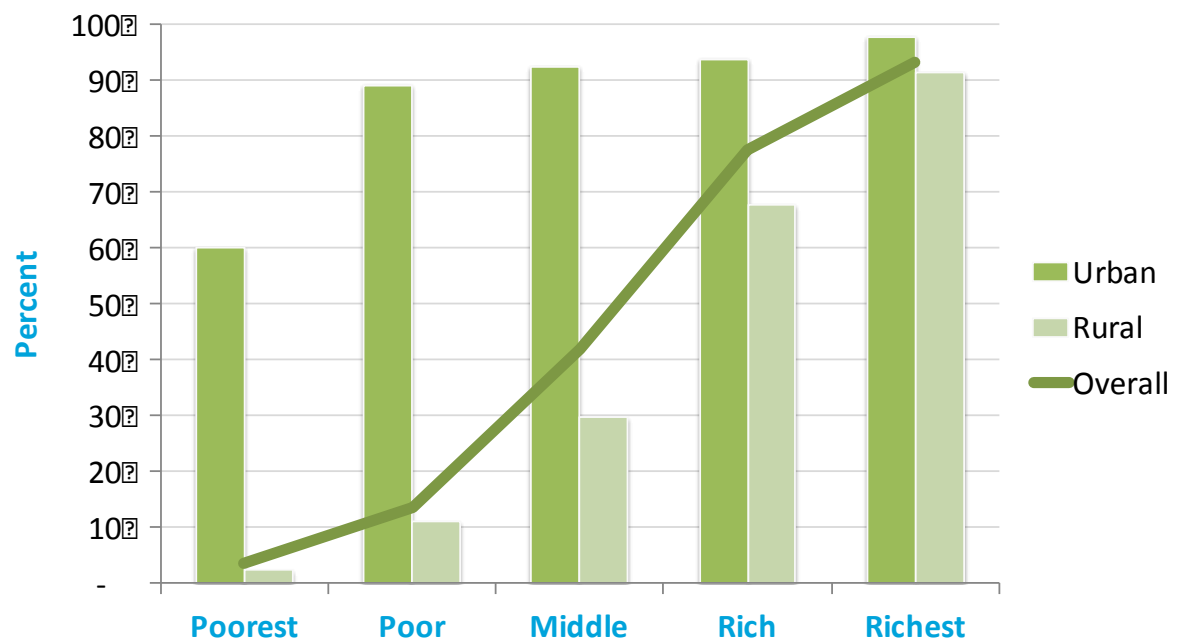


Figure 17 - Improved sanitation in district Muzaffargarh



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	96.9%	98.3%	97.6%	96.0%	98.2%	97.4%
	Rural	79.6%	84.5%	81.5%	88.4%	89.7%	84.8%
	Overall	77.9%	86.5%	82.5%	89.4%	96.2%	86.5%
Access to Piped Water	Urban	.%	7.5%	6.8%	9.8%	7.9%	8.1%
	Rural	0.2%	0.8%	1.4%	5.7%	6.2%	2.3%
	Overall	0.2%	0.8%	1.5%	6.1%	7.2%	3.1%
Improved Sanitation	Urban	75.1%	75.2%	84.3%	87.3%	84.0%	81.2%
	Rural	0.8%	2.6%	11.3%	34.6%	79.4%	25.7%
	Overall	0.7%	4.6%	16.9%	58.2%	86.4%	33.4%
Open Defecation	Urban	.%	7.5%	1.6%	1.7%	0.0%	0.3%
	Rural	99.2%	94.5%	82.2%	36.7%	2.0%	71.6%
	Overall	99.2%	94.0%	80.9%	33.2%	0.9%	61.8%
Water and Soap Available for Hand Washing	Urban	.%	100.0%	81.8%	84.4%	95.5%	93.6%
	Rural	42.8%	52.2%	73.4%	83.7%	95.8%	66.5%
	Overall	42.8%	52.4%	73.6%	83.8%	95.6%	70.2%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Jampur	90.2%	72.4%	86.9%	83.2%
	Rajanpur	67.0%	95.1%	99.0%	87.0%
	Rojhan	98.2%	94.9%	94.4%	95.8%
Access to Piped Water	Jampur	0.0%	1.5%	9.8%	3.7%
	Rajanpur	0.5%	2.9%	0.0%	1.1%
	Rojhan	0.8%	3.1%	14.3%	6.0%
Improved Sanitation	Jampur	0.0%	10.5%	79.1%	29.6%
	Rajanpur	6.2%	38.0%	76.9%	40.3%
	Rojhan	3.5%	12.3%	71.0%	28.8%
Open Defecation	Jampur	100.0%	88.8%	18.3%	69.1%
	Rajanpur	92.9%	55.5%	0.5%	49.8%
	Rojhan	96.0%	84.8%	20.7%	67.3%
Water and Soap Available for Hand Washing	Jampur	28.0%	64.7%	86.8%	60.4%
	Rajanpur	69.1%	88.5%	99.4%	85.6%
	Rojhan	58.9%	59.1%	72.2%	63.6%

Indices	District	Tehsils		
	Rajanpur	Jampur	Rajanpur	Rojhan
Exposure Index	2.79	9.03	3.05	2.89
Susceptibility Index	0.58	0.53	0.70	0.25
Sanitation Index	3.37	9.56	3.75	3.14

Figure 18 - Improved water in district Rajanpur

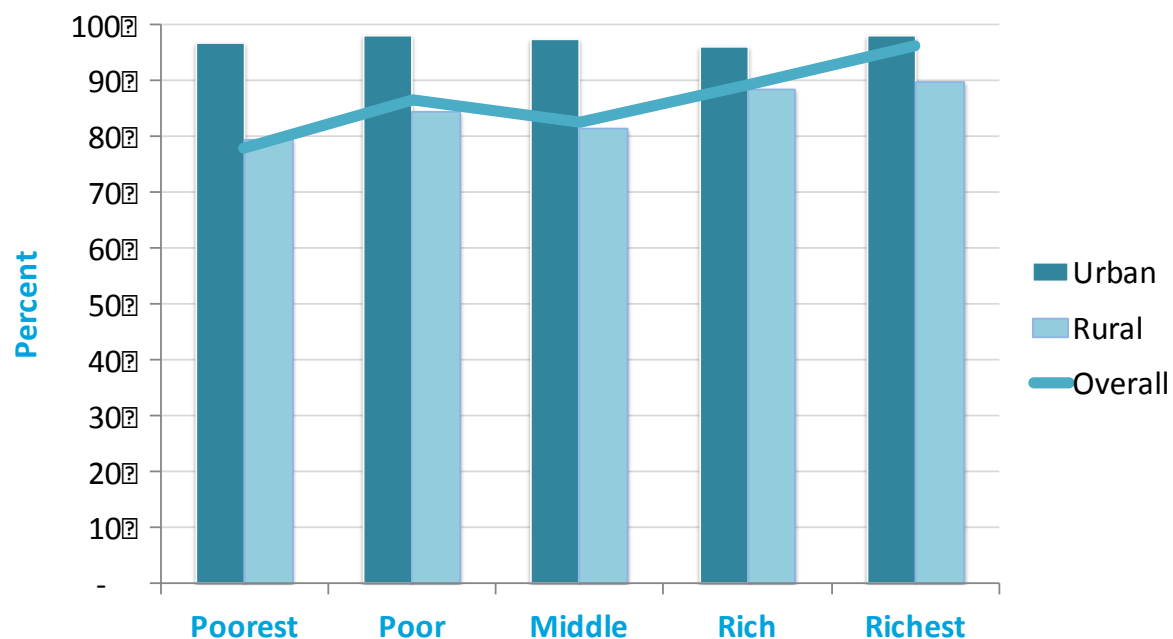
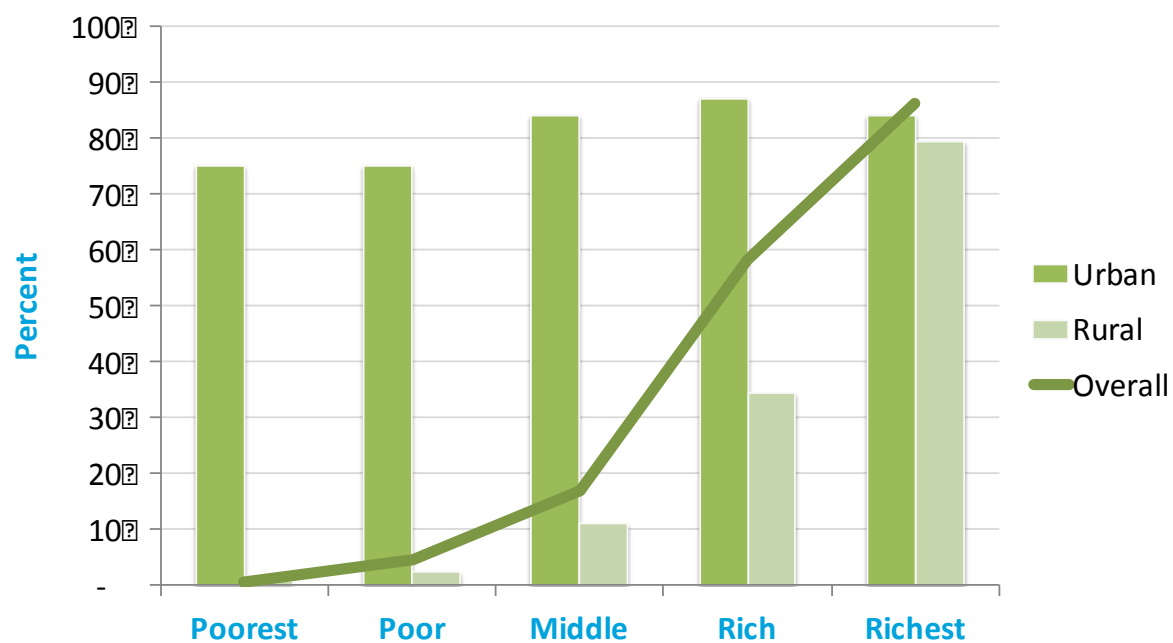


Figure 19 - Improved sanitation in district Rajanpur



Faisalabad

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	78.2%	69.8%	55.4%	53.0%	38.4%	59.0%
	Rural	99.0%	95.4%	95.1%	93.7%	84.2%	93.5%
	Overall	98.0%	92.6%	86.8%	69.0%	49.0%	79.1%
Access to Piped Water	Urban	1.2%	16.8%	35.2%	30.0%	23.4%	27.0%
	Rural	3.6%	9.1%	14.0%	24.3%	20.6%	10.2%
	Overall	3.6%	10.0%	20.8%	28.5%	23.2%	17.2%
Improved Sanitation	Urban	92.2%	96.1%	98.2%	98.1%	98.8%	96.7%
	Rural	28.2%	84.5%	96.4%	99.1%	98.8%	81.5%
	Overall	50.5%	94.8%	97.4%	97.8%	98.6%	87.8%
Open Defecation	Urban	16.6%	2.1%	0.0%	0.0%	0.0%	0.3%
	Rural	49.0%	2.8%	0.2%	0.0%	0.0%	17.4%
	Overall	48.4%	2.7%	0.1%	0.0%	0.0%	10.3%
Water and Soap Available for Hand Washing	Urban	64.0%	84.8%	90.1%	95.5%	98.7%	94.9%
	Rural	58.4%	83.1%	95.0%	97.5%	100.0%	78.5%
	Overall	58.5%	83.3%	93.3%	96.0%	98.8%	85.3%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Chak Jhumra Town	99.1%	99.8%	94.3%	97.7%
	Iqbal Town	83.9%	37.4%	19.6%	47.3%
	Jinnah Town	87.6%	75.1%	62.7%	75.2%
	Lyallpur Town	98.1%	95.5%	82.5%	92.1%
	Madina Town	90.5%	62.5%	40.2%	64.6%
	Jaranwala Town	99.3%	95.2%	87.0%	93.9%
	Sammundri Town	87.9%	88.8%	76.7%	84.5%
	Tandlianwala Town	99.9%	98.0%	92.3%	96.7%
Access to Piped Water	Chak Jhumra Town	2.4%	13.9%	21.2%	12.4%
	Iqbal Town	20.0%	13.7%	3.1%	12.3%
	Jinnah Town	24.6%	45.1%	46.1%	38.6%
	Lyallpur Town	7.9%	42.3%	51.1%	33.7%
	Madina Town	7.2%	17.2%	12.0%	12.1%
	Jaranwala Town	3.7%	11.5%	17.1%	10.8%
	Sammundri Town	12.7%	17.0%	15.3%	15.0%
	Tandlianwala Town	0.0%	0.0%	0.8%	0.3%
Improved Sanitation	Chak Jhumra Town	74.5%	99.6%	99.8%	91.2%
	Iqbal Town	89.9%	99.8%	99.0%	96.2%
	Jinnah Town	93.6%	94.7%	97.7%	95.3%
	Lyallpur Town	91.2%	98.4%	100.0%	96.5%
	Madina Town	86.0%	96.4%	97.8%	93.3%
	Jaranwala Town	54.5%	95.4%	98.4%	82.5%
	Sammundri Town	82.6%	98.5%	98.4%	93.1%
	Tandlianwala Town	5.8%	56.7%	95.5%	52.3%
Open Defecation	Chak Jhumra Town	25.0%	0.0%	0.0%	8.4%
	Iqbal Town	8.6%	0.0%	0.0%	2.9%
	Jinnah Town	3.8%	0.0%	0.0%	1.3%
	Lyallpur Town	5.3%	0.0%	0.0%	1.8%
	Madina Town	9.4%	0.0%	0.0%	3.2%
	Jaranwala Town	45.1%	3.3%	0.2%	16.3%
	Sammundri Town	16.9%	0.3%	0.0%	5.7%
	Tandlianwala Town	93.2%	42.7%	1.4%	45.9%
Water and Soap Available for Hand Washing	Chak Jhumra Town	67.2%	84.0%	99.0%	82.8%
	Iqbal Town	80.2%	90.0%	97.6%	89.2%
	Jinnah Town	91.4%	95.2%	99.5%	95.2%
	Lyallpur Town	79.3%	93.3%	98.3%	90.0%
	Madina Town	85.2%	98.4%	99.0%	94.2%
	Jaranwala Town	71.9%	91.8%	97.4%	86.3%
	Sammundri Town	75.9%	87.3%	97.0%	86.2%
	Tandlianwala Town	19.0%	44.8%	87.9%	48.8%

Indices	District	Tehsils							
	Faisalabad	Chak Jhumra Town	Iqbal Town	Jinnah Town	Lyallpur Town	Madina Town	Jaranwala Town	Sammundri Town	Tandlianwala Town
Exposure Index	1.82	0.98	NA	NA	NA	NA	1.72	31.92	2.92
Susceptibility Index	0.62	0.35	0.56	0.73	0.63	0.77	0.54	0.83	0.44
Sanitation Index	2.44	1.33	NA	NA	NA	NA	2.25	32.76	3.36

Figure 20 - Improved water in district Faisalabad

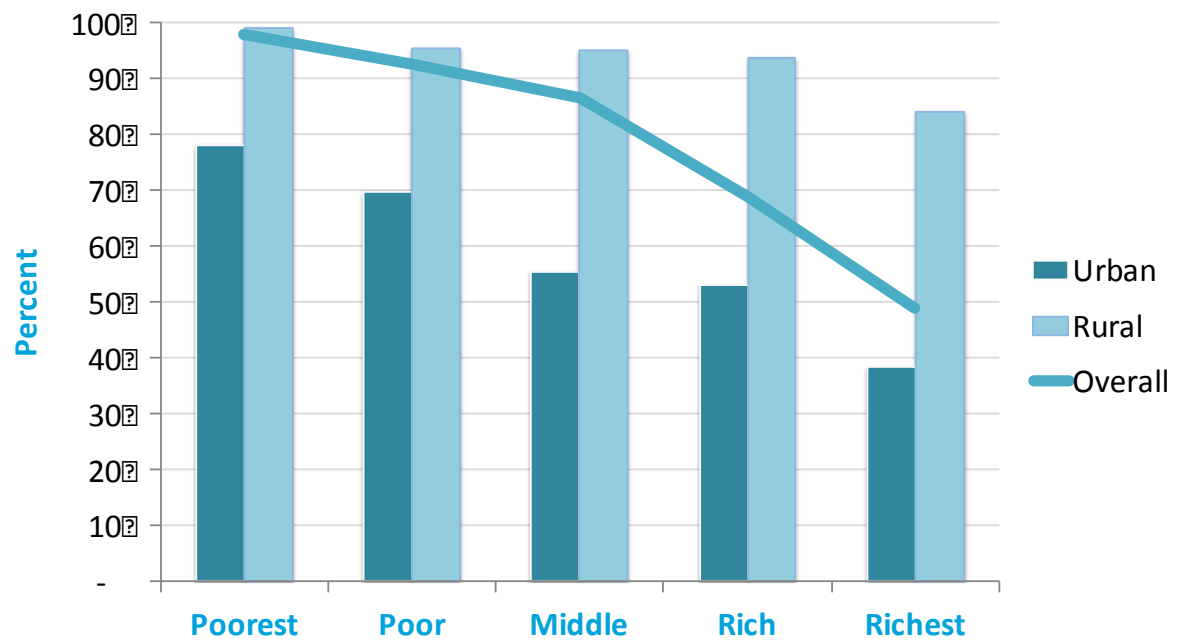
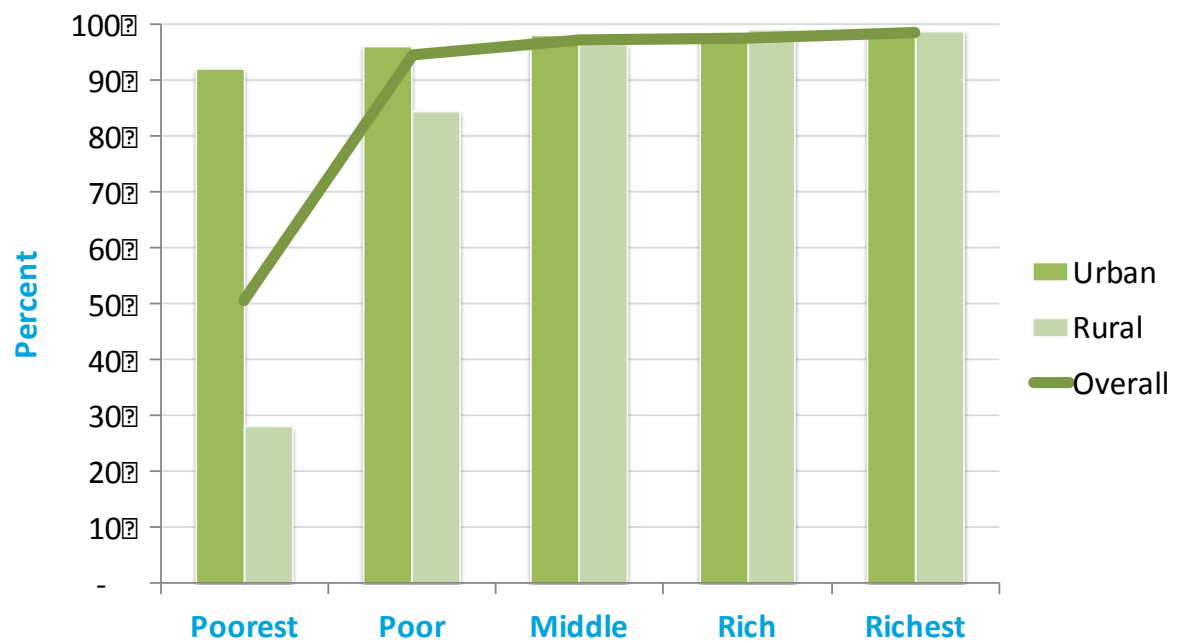


Figure 21 - Improved sanitation in district Faisalabad



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	99.3%	94.2%	89.6%	92.3%	91.9%	93.4%
	Rural	100.0%	99.8%	100.0%	100.0%	100.0%	100.0%
	Overall	100.0%	99.8%	100.0%	98.4%	92.6%	98.2%
Access to Piped Water	Urban	23.9%	7.9%	14.7%	5.2%	13.1%	10.9%
	Rural	0.3%	0.3%	0.0%	0.0%	0.0%	0.2%
	Overall	0.5%	0.6%	1.5%	2.0%	11.0%	3.1%
Improved Sanitation	Urban	65.8%	84.9%	91.1%	89.4%	93.4%	85.0%
	Rural	0.5%	4.6%	16.2%	53.6%	89.3%	32.9%
	Overall	1.2%	9.4%	48.0%	85.7%	91.4%	47.2%
Open Defecation	Urban	100.0%	44.6%	18.6%	0.5%	0.0%	3.4%
	Rural	98.8%	90.0%	50.9%	9.7%	5.7%	65.4%
	Overall	98.8%	88.2%	47.7%	6.2%	0.9%	48.4%
Water and Soap Available for Hand Washing	Urban	5.7%	39.8%	37.8%	82.3%	93.0%	83.5%
	Rural	42.2%	41.4%	59.6%	80.6%	93.8%	54.7%
	Overall	41.7%	41.4%	57.1%	81.3%	93.1%	62.8%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Chiniot	99.8%	100.0%	97.7%	99.2%
	Bhowana	100.0%	100.0%	99.5%	99.8%
	Lalian	100.0%	99.6%	87.3%	95.7%
Access to Piped Water	Chiniot	0.9%	1.3%	2.5%	1.6%
	Bhowana	0.0%	0.0%	0.0%	0.0%
	Lalian	0.4%	2.7%	19.3%	7.4%
Improved Sanitation	Chiniot	6.0%	64.6%	85.1%	51.4%
	Bhowana	4.2%	31.1%	89.1%	41.1%
	Lalian	2.7%	42.4%	95.8%	46.6%
Open Defecation	Chiniot	92.8%	25.8%	1.4%	40.0%
	Bhowana	95.7%	67.1%	9.7%	57.5%
	Lalian	95.5%	55.3%	3.2%	51.6%
Water and Soap Available for Hand Washing	Chiniot	47.5%	76.5%	95.6%	73.3%
	Bhowana	36.4%	44.6%	75.1%	52.0%
	Lalian	45.1%	46.1%	84.6%	59.0%

Indices	District		Tehsils	
	Chiniot	Chiniot	Bhowana	Lalian
Exposure Index	2.86	1.66	NA	NA
Susceptibility Index	0.49	0.54	0.71	0.26
Sanitation Index	3.35	2.21	NA	NA

Figure 22 - Improved water in district Chiniot

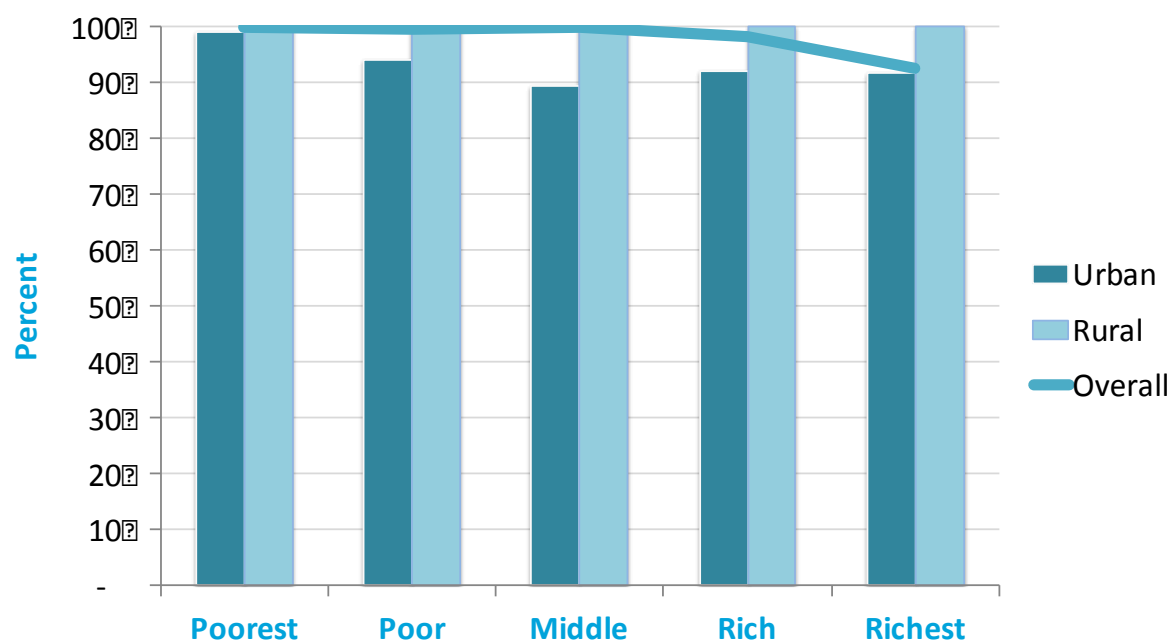
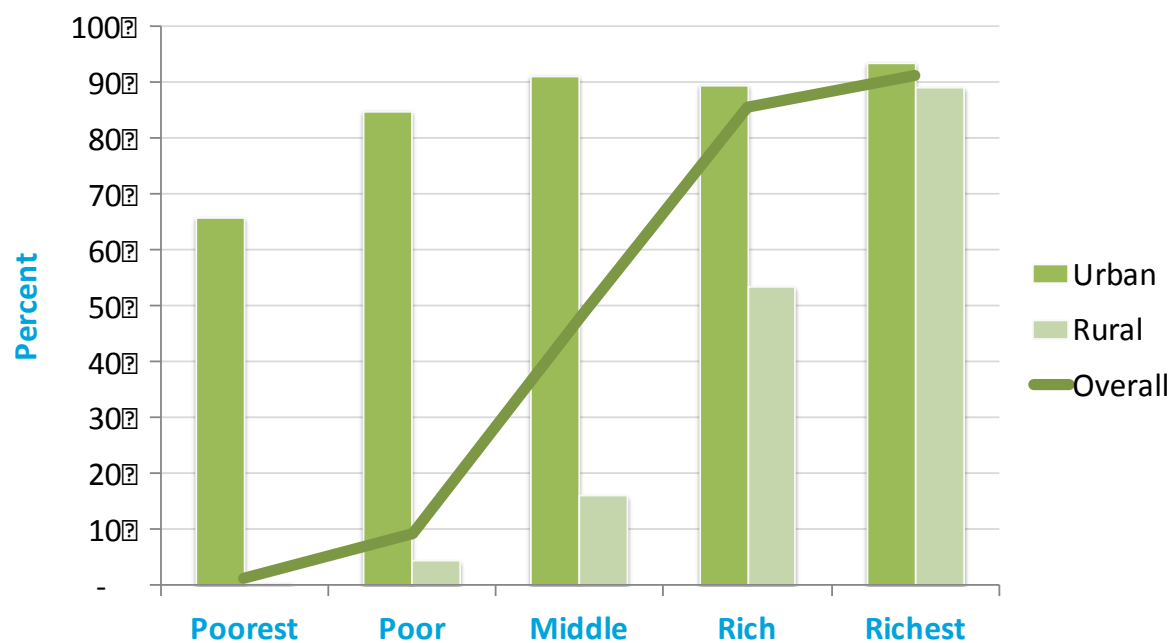


Figure 23 - Improved sanitation in district Chiniot



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	97.3%	98.0%	97.3%	94.3%	85.9%	94.5%
	Rural	99.9%	100.0%	99.0%	100.0%	99.4%	99.7%
	Overall	99.9%	100.0%	98.8%	99.7%	95.6%	98.8%
Access to Piped Water	Urban	0.0%	0.0%	2.0%	6.6%	11.0%	9.0%
	Rural	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%
	Overall	0.0%	0.0%	0.2%	1.1%	6.7%	1.6%
Improved Sanitation	Urban	31.4%	41.7%	60.8%	55.1%	80.6%	54.0%
	Rural	1.8%	8.4%	39.9%	82.6%	98.4%	46.2%
	Overall	2.1%	17.4%	55.9%	85.0%	77.5%	47.6%
Open Defecation	Urban	86.2%	43.0%	10.6%	0.5%	0.2%	4.0%
	Rural	97.4%	81.9%	40.2%	5.4%	0.0%	52.6%
	Overall	97.3%	80.6%	38.2%	4.7%	0.1%	44.2%
Water and Soap Available for Hand Washing	Urban	31.8%	72.6%	71.1%	84.9%	92.8%	87.6%
	Rural	19.6%	33.3%	50.6%	77.3%	96.5%	47.9%
	Overall	19.8%	34.6%	52.4%	78.6%	94.2%	55.1%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Ahmadpur Sial	100.0%	100.0%	100.0%	100.0%
	18 - Hazari	99.9%	98.2%	100.0%	99.4%
	Jhang	100.0%	99.2%	95.4%	98.2%
	Shorkot	99.9%	99.8%	98.5%	99.4%
Access to Piped Water	Ahmadpur Sial	0.0%	0.0%	0.5%	0.2%
	18 - Hazari	0.0%	0.2%	0.0%	0.1%
	Jhang	0.0%	0.6%	3.2%	1.3%
	Shorkot	0.0%	1.3%	13.2%	4.8%
Improved Sanitation	Ahmadpur Sial	2.6%	40.9%	82.3%	41.6%
	18 - Hazari	10.9%	70.0%	98.0%	59.2%
	Jhang	5.3%	53.2%	74.5%	44.2%
	Shorkot	4.1%	64.7%	91.2%	53.0%
Open Defecation	Ahmadpur Sial	97.0%	53.4%	6.2%	52.2%
	18 - Hazari	86.8%	28.7%	0.3%	38.7%
	Jhang	94.1%	38.0%	0.6%	44.3%
	Shorkot	95.1%	32.0%	0.5%	42.8%
Water and Soap Available for Hand Washing	Ahmadpur Sial	29.5%	66.3%	91.2%	61.7%
	18 - Hazari	39.5%	64.9%	94.9%	65.6%
	Jhang	18.0%	43.1%	87.6%	48.5%
	Shorkot	29.6%	66.1%	96.3%	63.1%

Indices	District			Tehsils	
	Jhang	Ahmadpur Sial	18 - Hazari	Jhang	Shorkot
Exposure Index	2.72	NA	NA	2.71	2.26
Susceptibility Index	0.44	0.71	0.47	0.33	0.74
Sanitation Index	3.16	NA	NA	3.04	3.00

Figure 24 - Improved water in district Jhang

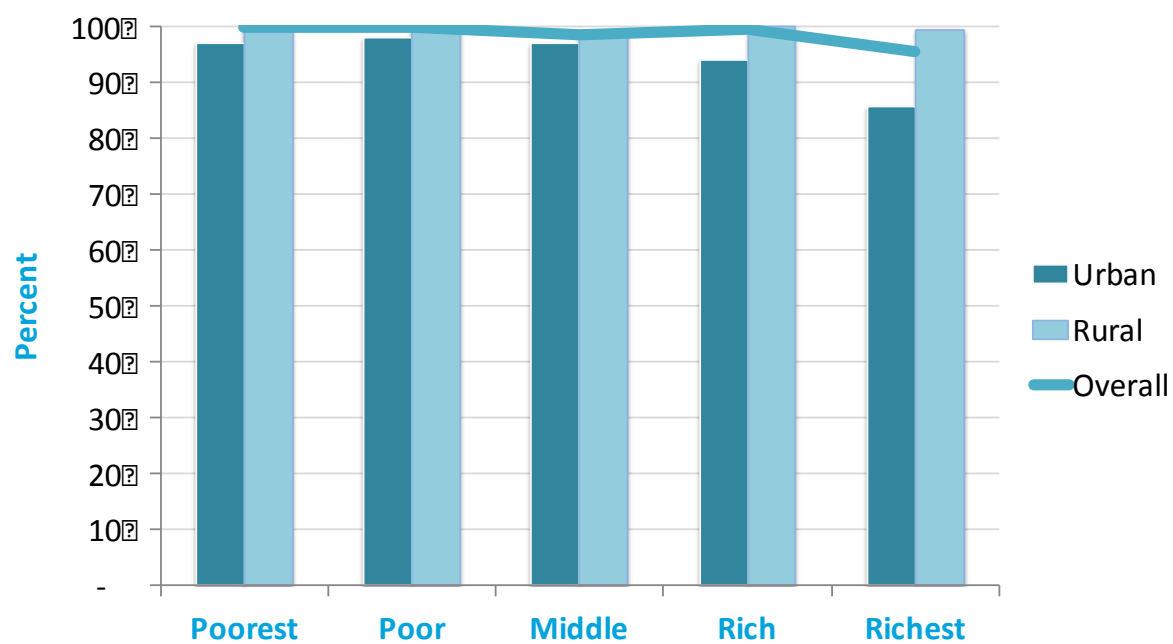
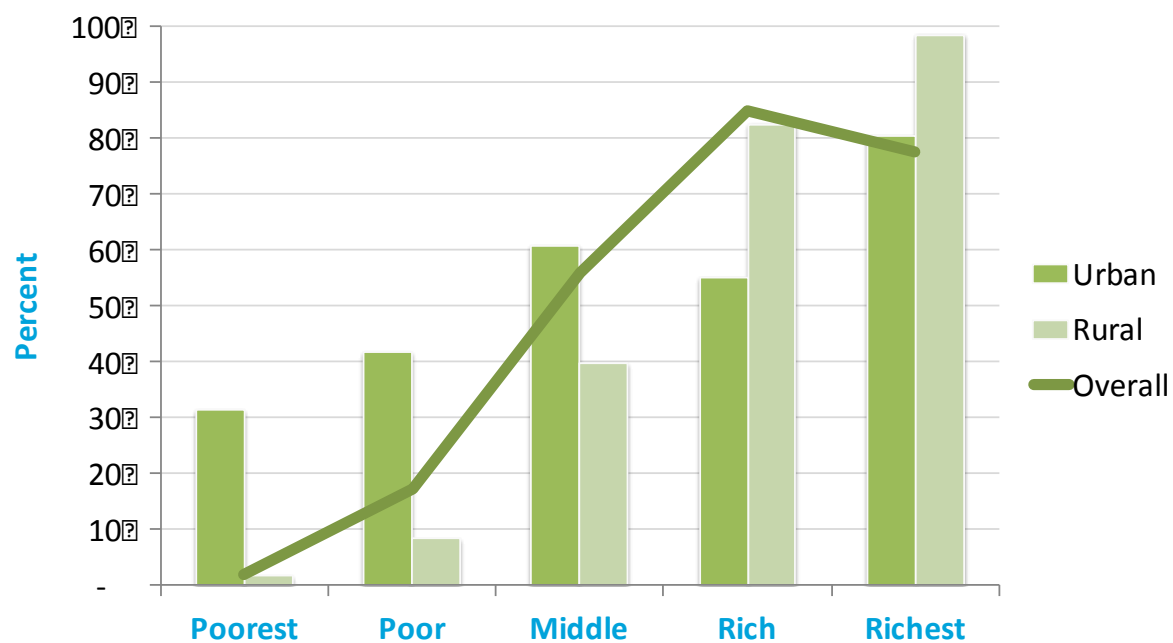


Figure 25 - Improved sanitation in district Jhang



Toba Tek Singh

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	85.6%	80.5%	75.6%	77.7%	68.9%	77.6%
	Rural	95.7%	97.6%	97.8%	99.3%	97.4%	97.6%
	Overall	95.4%	98.5%	96.8%	95.5%	84.0%	94.0%
Access to Piped Water	Urban	15.0%	6.1%	24.7%	25.8%	39.5%	33.3%
	Rural	15.0%	36.7%	41.9%	50.8%	47.5%	36.6%
	Overall	15.0%	35.5%	40.6%	46.0%	43.0%	36.0%
Improved Sanitation	Urban	94.4%	100.0%	100.0%	100.0%	100.0%	98.9%
	Rural	31.6%	86.5%	98.0%	98.5%	100.0%	83.0%
	Overall	39.3%	91.4%	98.9%	99.1%	100.0%	85.8%
Open Defecation	Urban	53.9%	0.0%	0.0%	0.0%	0.0%	1.0%
	Rural	60.3%	6.2%	1.1%	0.0%	0.0%	16.1%
	Overall	60.2%	5.9%	1.0%	0.0%	0.0%	13.5%
Water and Soap Available for Hand Washing	Urban	57.2%	93.6%	92.9%	95.5%	97.1%	95.1%
	Rural	44.2%	72.9%	81.2%	94.0%	97.9%	74.2%
	Overall	44.5%	73.8%	82.1%	94.3%	97.5%	77.7%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Gojra	98.0%	94.9%	82.1%	91.7%
	Kamalia	94.6%	97.7%	89.7%	94.0%
	Toba Tek Singh	96.7%	98.4%	92.3%	95.8%
Access to Piped Water	Gojra	40.3%	41.7%	42.9%	41.6%
	Kamalia	0.1%	2.7%	8.5%	3.8%
	Toba Tek Singh	35.8%	56.8%	63.9%	52.1%
Improved Sanitation	Gojra	73.2%	99.0%	100.0%	90.6%
	Kamalia	27.5%	95.0%	99.2%	73.5%
	Toba Tek Singh	71.4%	98.6%	100.0%	89.9%
Open Defecation	Gojra	24.4%	0.0%	0.0%	8.2%
	Kamalia	72.9%	4.2%	0.8%	26.0%
	Toba Tek Singh	27.4%	0.9%	0.0%	9.5%
Water and Soap Available for Hand Washing	Gojra	71.7%	88.0%	99.1%	85.5%
	Kamalia	41.3%	70.1%	95.8%	68.7%
	Toba Tek Singh	56.3%	82.7%	96.0%	77.5%

Indices	District	Tehsils		
	Toba Tek Singh	Gojra	Kamalia	Toba Tek Singh
Exposure Index	1.35	12.16	2.11	41.36
Susceptibility Index	0.36	0.40	0.45	0.26
Sanitation Index	1.71	12.56	2.56	41.62

Figure 26 - Improved water in district Toba Tek Singh

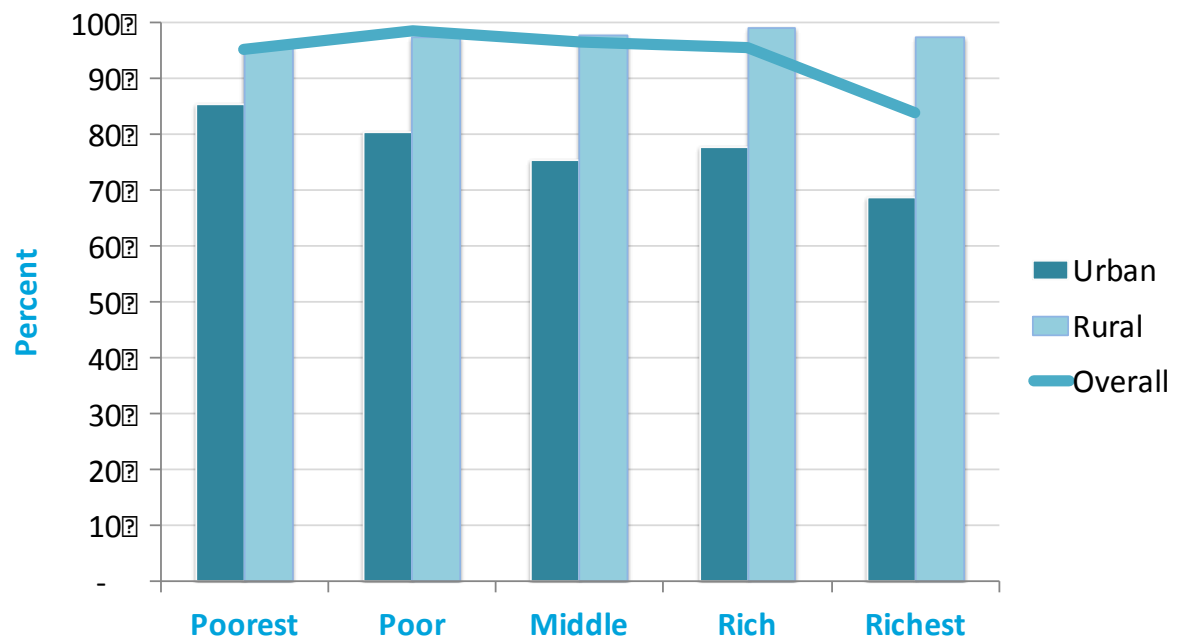
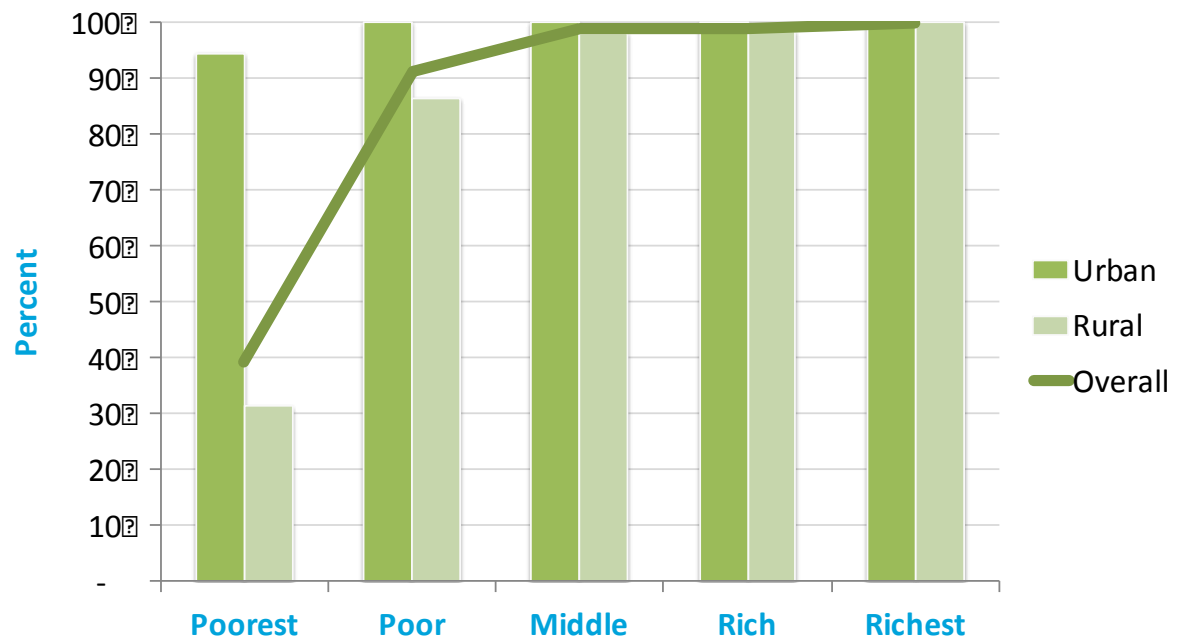


Figure 27 - Improved sanitation in district Toba Tek Singh



Gujranwala

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	97.7%	94.7%	94.6%	91.6%	84.9%	92.7%
	Rural	99.2%	98.3%	97.9%	98.0%	95.7%	97.8%
	Overall	99.0%	97.5%	96.8%	94.4%	88.7%	95.3%
Access to Piped Water	Urban	10.5%	11.0%	16.4%	13.0%	14.2%	13.8%
	Rural	2.6%	3.1%	2.4%	2.1%	1.8%	2.6%
	Overall	3.8%	5.3%	9.7%	9.7%	12.2%	8.1%
Improved Sanitation	Urban	94.6%	98.4%	98.6%	99.6%	99.4%	98.1%
	Rural	80.9%	97.4%	99.3%	99.3%	99.2%	95.2%
	Overall	88.0%	98.2%	98.7%	99.0%	99.3%	96.7%
Open Defecation	Urban	4.8%	0.0%	0.0%	0.0%	0.0%	0.3%
	Rural	10.2%	0.0%	0.0%	0.0%	0.0%	3.5%
	Overall	9.4%	0.0%	0.0%	0.0%	0.0%	1.9%
Water and Soap Available for Hand Washing	Urban	80.6%	94.4%	96.8%	97.7%	97.9%	96.1%
	Rural	84.5%	93.1%	97.2%	98.6%	99.1%	91.9%
	Overall	83.9%	93.5%	97.0%	98.0%	98.1%	94.0%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Aroop Town	96.6%	93.4%	81.4%	90.5%
	Khialli Shahpur Town	98.8%	97.2%	88.0%	94.7%
	Nandipur Town	99.6%	97.1%	96.7%	97.8%
	Qila Dedar Singh Town	99.0%	96.2%	91.1%	95.5%
	Naushera Virkan Town	99.9%	100.0%	99.5%	99.8%
	Kamoke Town	97.8%	97.3%	94.5%	96.5%
	Wazirabad Town	98.0%	95.1%	91.5%	94.9%
Access to Piped Water	Aroop Town	1.8%	4.6%	7.6%	4.6%
	Khialli Shahpur Town	4.3%	5.1%	3.6%	4.3%
	Nandipur Town	4.7%	9.1%	16.1%	9.9%
	Qila Dedar Singh Town	9.6%	16.3%	21.8%	15.9%
	Naushera Virkan Town	0.8%	6.0%	7.7%	4.8%
	Kamoke Town	5.0%	6.2%	6.6%	5.9%
	Wazirabad Town	4.4%	10.6%	17.9%	11.0%
Improved Sanitation	Aroop Town	96.3%	99.5%	100.0%	98.6%
	Khialli Shahpur Town	93.7%	99.9%	100.0%	97.8%
	Nandipur Town	94.6%	98.1%	99.8%	97.5%
	Qila Dedar Singh Town	91.6%	99.1%	99.7%	96.7%
	Naushera Virkan Town	82.3%	98.2%	99.0%	93.2%
	Kamoke Town	90.6%	98.7%	94.6%	94.6%
	Wazirabad Town	91.2%	99.0%	99.0%	96.4%
Open Defecation	Aroop Town	1.7%	0.0%	0.0%	0.6%
	Khialli Shahpur Town	4.1%	0.0%	0.0%	1.4%
	Nandipur Town	3.0%	0.0%	0.0%	1.0%
	Qila Dedar Singh Town	3.5%	0.0%	0.0%	1.2%
	Naushera Virkan Town	16.1%	1.5%	0.0%	5.9%
	Kamoke Town	7.1%	0.0%	0.0%	2.4%
	Wazirabad Town	6.4%	0.0%	0.0%	2.1%
Water and Soap Available for Hand Washing	Aroop Town	91.3%	100.0%	99.5%	96.9%
	Khialli Shahpur Town	83.6%	97.4%	98.5%	92.9%
	Nandipur Town	88.0%	95.8%	96.4%	93.3%
	Qila Dedar Singh Town	87.6%	94.8%	96.5%	92.9%
	Naushera Virkan Town	81.4%	91.8%	98.0%	90.1%
	Kamoke Town	84.9%	92.7%	99.6%	92.0%
	Wazirabad Town	95.9%	98.4%	97.7%	97.4%

Indices	District	Tehsils						
	Gujranwala	Aroop Town	Khialli Shahpur Town	Nandipur Town	Qila Dedar Singh Town	Naushera Virkan Town	Kamoke Town	Wazirabad Town
Exposure Index	1.13	NA	NA	NA	NA	1.38	1.19	1.05
Susceptibility Index	0.52	0.60	0.53	0.51	0.40	0.28	0.64	0.51
Sanitation Index	1.65	NA	NA	NA	NA	1.66	1.83	1.56

Figure 28 - Improved water in district Gujranwala

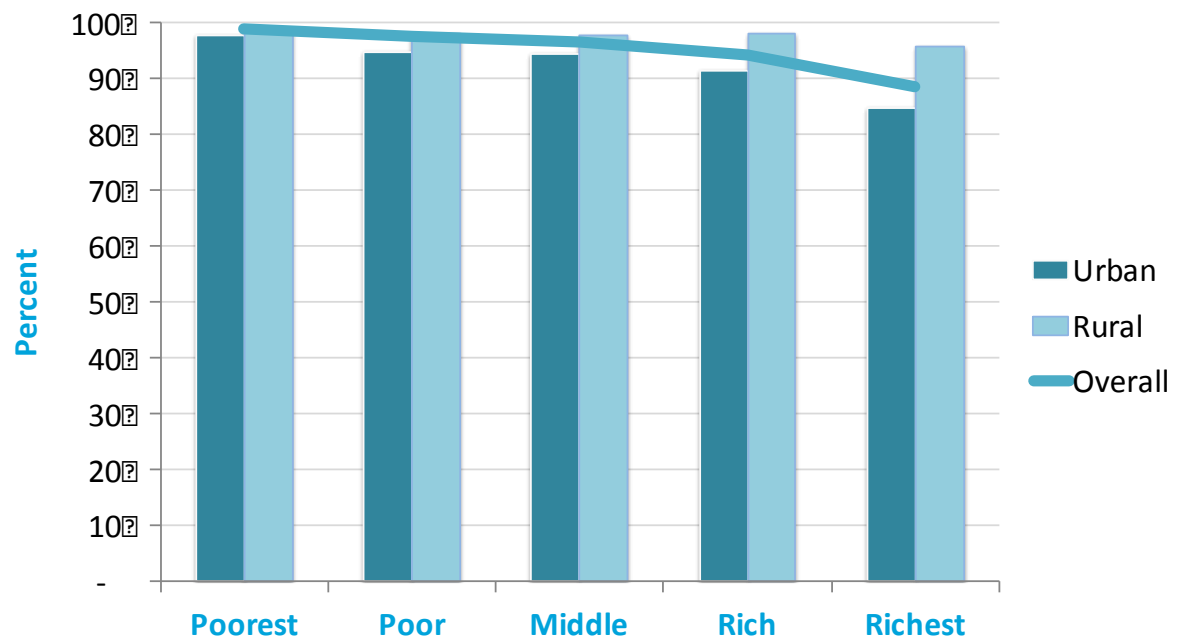
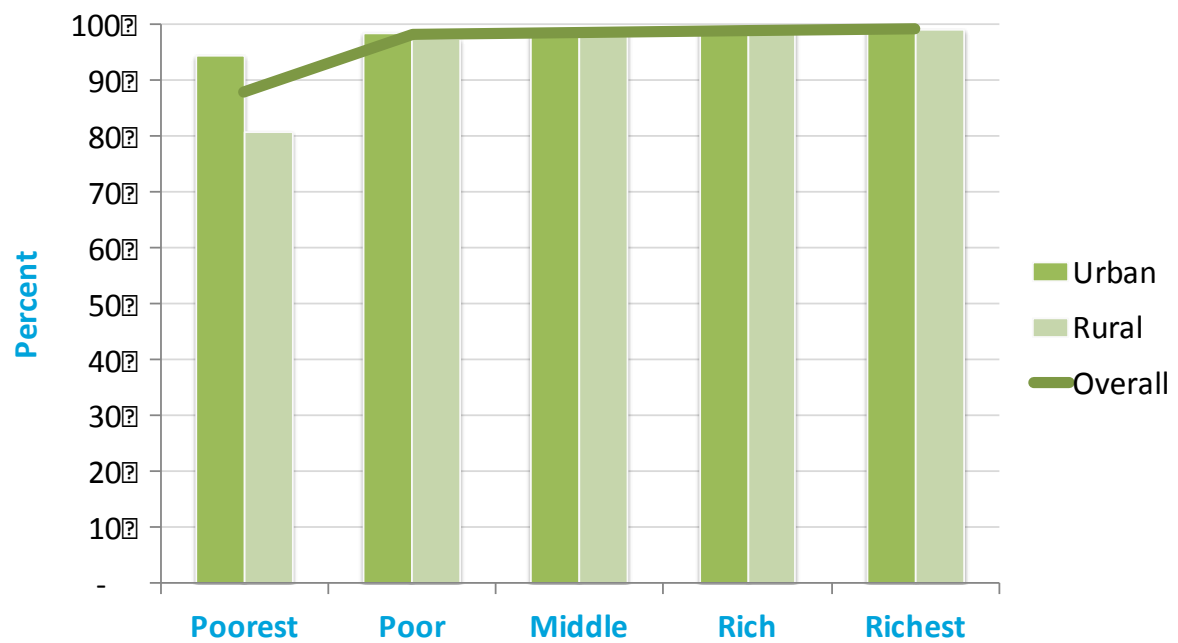


Figure 29 - Improved sanitation in district Gujranwala



Gujrat

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	93.3%	96.1%	94.6%	92.3%	86.6%	92.6%
	Rural	99.9%	99.0%	99.8%	99.0%	99.0%	99.3%
	Overall	99.6%	98.6%	98.6%	97.6%	94.5%	97.7%
Access to Piped Water	Urban	23.0%	37.9%	31.0%	34.7%	32.6%	33.2%
	Rural	9.1%	12.5%	16.5%	18.8%	24.3%	15.0%
	Overall	9.5%	15.3%	18.4%	24.4%	28.8%	19.3%
Improved Sanitation	Urban	97.8%	100.0%	100.0%	100.0%	100.0%	99.6%
	Rural	32.0%	86.5%	97.5%	98.9%	100.0%	83.0%
	Overall	44.0%	91.6%	99.1%	99.5%	100.0%	86.9%
Open Defecation	Urban	11.2%	0.0%	0.0%	0.0%	0.0%	0.3%
	Rural	56.8%	8.9%	1.0%	0.8%	0.0%	16.7%
	Overall	55.2%	7.9%	0.9%	0.5%	0.0%	12.9%
Water and Soap Available for Hand Washing	Urban	90.0%	96.4%	96.6%	100.0%	99.6%	98.8%
	Rural	88.9%	96.5%	97.7%	99.6%	100.0%	95.6%
	Overall	89.0%	96.5%	97.5%	99.7%	99.8%	96.3%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Gujrat	98.5%	97.3%	94.7%	96.8%
	Kharian	100.0%	100.0%	98.2%	99.4%
	Sarai Alamgir	99.8%	99.4%	90.2%	96.5%
Access to Piped Water	Gujrat	17.4%	29.1%	38.8%	28.4%
	Kharian	5.3%	7.6%	13.7%	8.8%
	Sarai Alamgir	5.5%	6.8%	10.2%	7.5%
Improved Sanitation	Gujrat	64.2%	99.3%	100.0%	87.6%
	Kharian	61.8%	98.3%	100.0%	86.5%
	Sarai Alamgir	55.0%	97.1%	100.0%	83.8%
Open Defecation	Gujrat	35.1%	0.7%	0.0%	12.0%
	Kharian	38.3%	2.2%	0.0%	13.5%
	Sarai Alamgir	45.0%	2.9%	0.0%	16.0%
Water and Soap Available for Hand Washing	Gujrat	94.5%	97.4%	99.5%	97.1%
	Kharian	90.3%	97.9%	100.0%	95.9%
	Sarai Alamgir	84.1%	98.8%	100.0%	94.0%

Indices	District		Tehsils	
	Gujrat	Gujrat	Kharian	Sarai Alamgir
Exposure Index	1.32	1.41	1.42	1.10
Susceptibility Index	0.43	0.56	0.22	0.13
Sanitation Index	1.75	1.97	1.64	1.24

Figure 30 - Improved water in district Gujrat

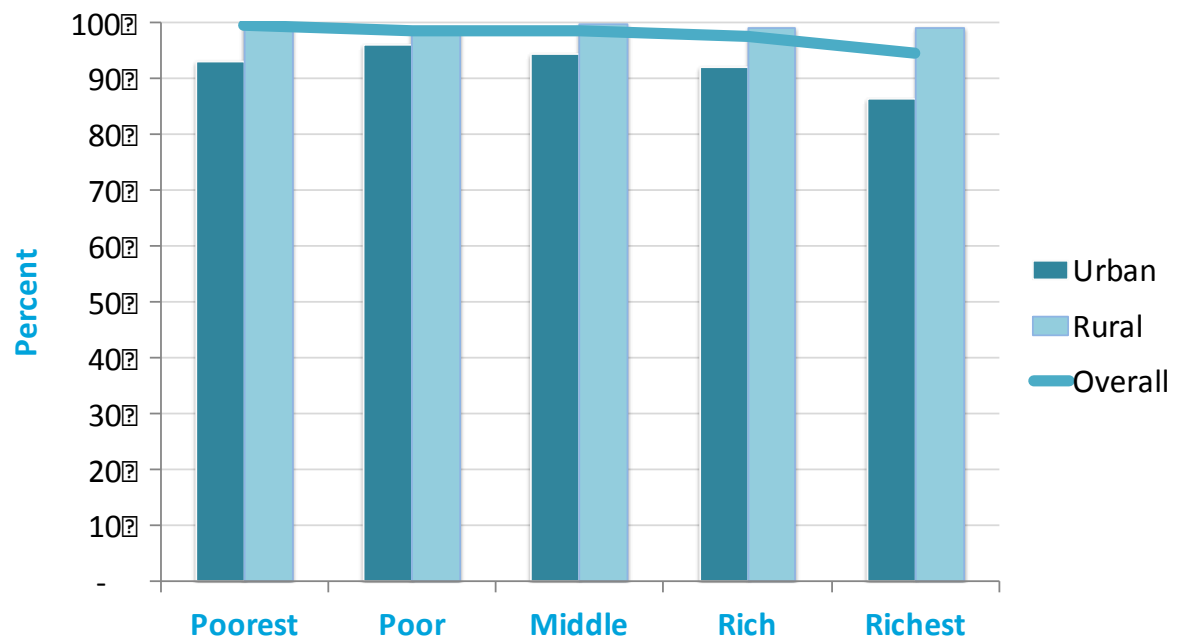
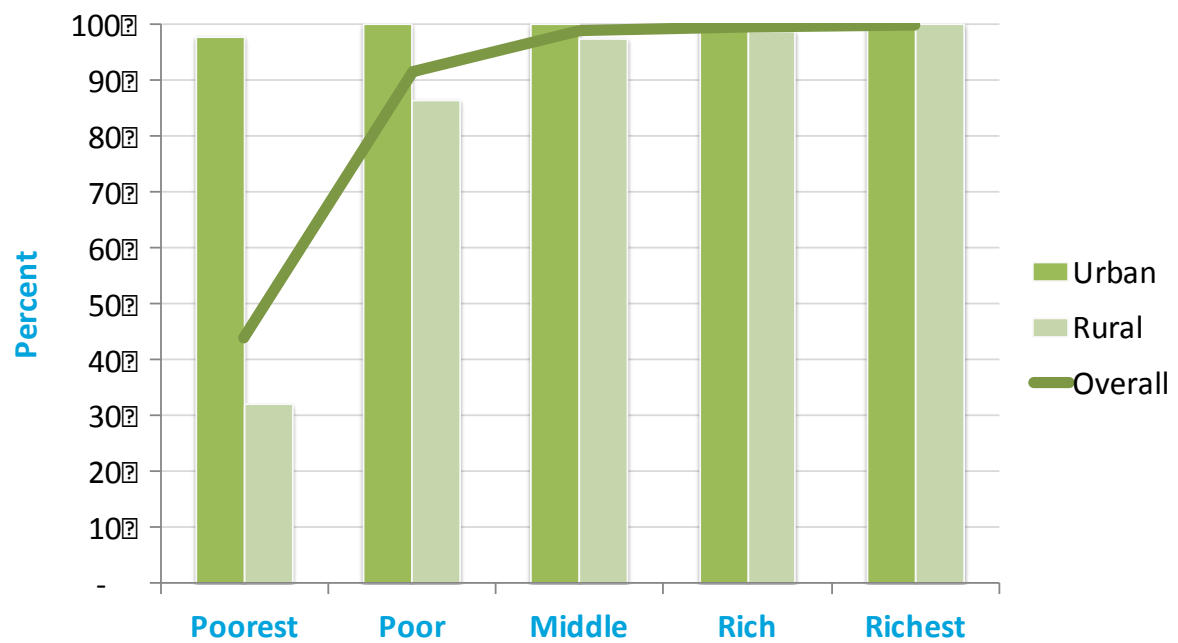


Figure 31 - Improved sanitation in district Gujrat



Hafizabad

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	100.0%	93.5%	96.7%	88.7%	75.5%	90.9%
	Rural	98.5%	99.3%	100.0%	100.0%	96.8%	98.9%
	Overall	99.0%	99.5%	99.2%	96.9%	86.7%	96.3%
Access to Piped Water	Urban	0.0%	0.0%	0.0%	3.9%	1.4%	1.6%
	Rural	1.1%	2.9%	0.3%	0.0%	0.0%	1.1%
	Overall	1.0%	2.6%	0.2%	1.6%	1.1%	1.3%
Improved Sanitation	Urban	80.9%	94.7%	100.0%	100.0%	100.0%	95.1%
	Rural	5.1%	37.0%	80.1%	88.8%	99.5%	62.2%
	Overall	12.8%	64.7%	87.7%	99.6%	100.0%	73.0%
Open Defecation	Urban	58.5%	2.4%	6.6%	0.0%	0.0%	4.4%
	Rural	85.1%	33.2%	10.0%	0.6%	0.0%	34.1%
	Overall	82.8%	29.5%	9.0%	0.4%	0.0%	24.4%
Water and Soap Available for Hand Washing	Urban	58.2%	87.4%	78.4%	93.8%	99.0%	91.4%
	Rural	90.9%	94.9%	97.8%	100.0%	100.0%	95.7%
	Overall	88.3%	94.0%	92.6%	97.4%	99.3%	94.3%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Hafizabad	100.0%	96.8%	87.2%	94.7%
	Pindi Bhattian	98.7%	99.3%	96.8%	98.3%
Access to Piped Water	Hafizabad	2.1%	1.3%	1.9%	1.7%
	Pindi Bhattian	1.4%	0.9%	0.0%	0.8%
Improved Sanitation	Hafizabad	60.3%	93.7%	100.0%	84.4%
	Pindi Bhattian	7.5%	72.6%	96.6%	58.5%
Open Defecation	Hafizabad	37.3%	5.1%	0.0%	14.2%
	Pindi Bhattian	85.6%	24.2%	2.1%	37.3%
Water and Soap Available for Hand Washing	Hafizabad	91.4%	94.0%	99.6%	94.9%
	Pindi Bhattian	88.7%	95.4%	96.5%	93.5%

Indices	District		Tehsils
	Hafizabad	Hafizabad	Pindi Bhattian
Exposure Index	1.94	26.64	46.05
Susceptibility Index	0.72	0.47	1.10
Sanitation Index	2.66	27.12	47.15

Figure 32 - Improved water in district Hafizabad

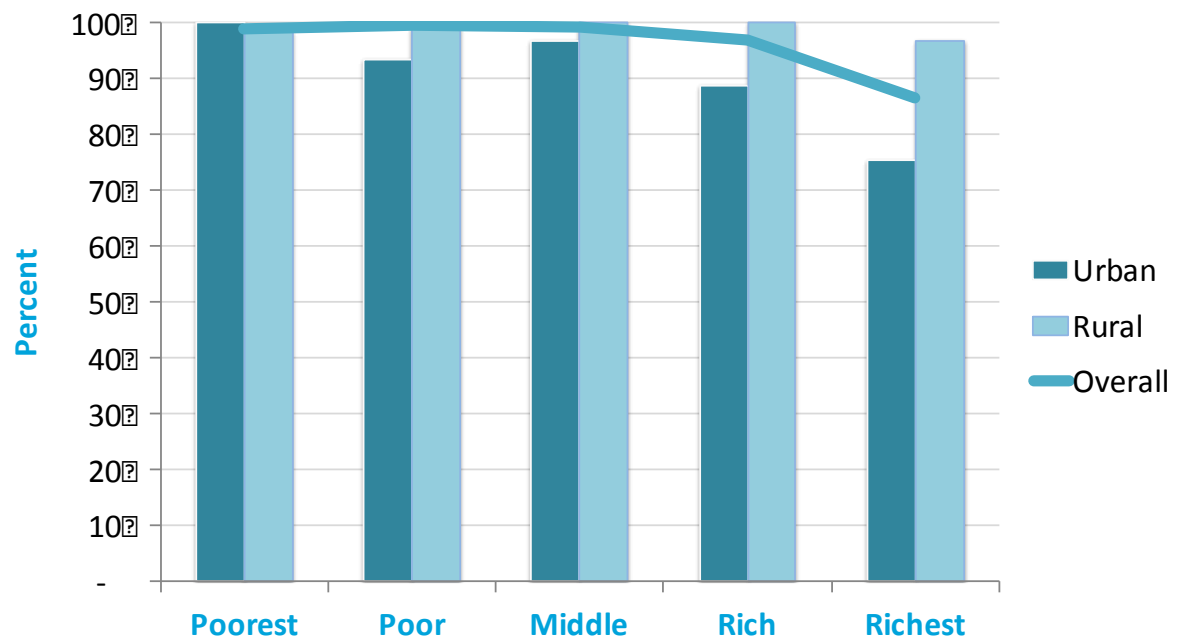
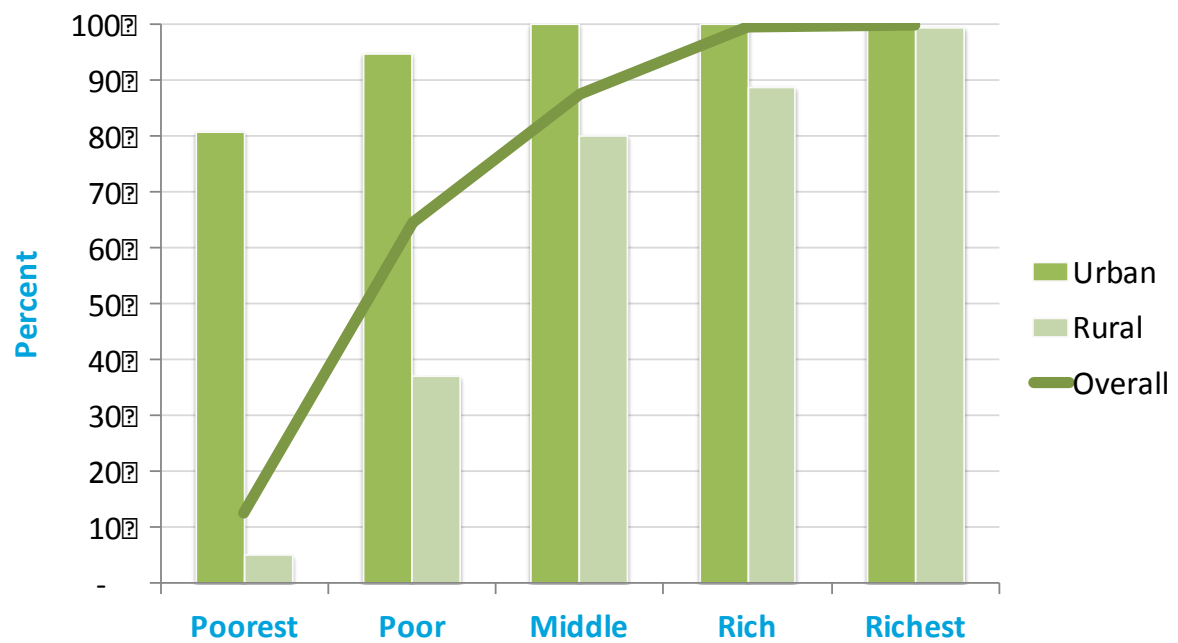


Figure 33 - Improved sanitation in district Hafizabad



Mandi Bahauddin

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	91.9%	88.4%	91.6%	83.7%	84.1%	87.9%
	Rural	99.0%	99.3%	97.2%	96.2%	88.3%	96.0%
	Overall	99.0%	98.9%	95.7%	94.4%	87.6%	95.1%
Access to Piped Water	Urban	0.7%	10.2%	13.6%	11.2%	7.6%	8.3%
	Rural	1.4%	0.5%	1.5%	1.7%	3.6%	1.6%
	Overall	1.4%	0.7%	2.1%	2.2%	5.3%	2.3%
Improved Sanitation	Urban	86.0%	100.0%	98.6%	100.0%	98.4%	96.6%
	Rural	11.9%	57.2%	87.7%	97.0%	99.8%	71.0%
	Overall	12.1%	68.7%	88.1%	99.3%	99.5%	73.9%
Open Defecation	Urban	59.0%	5.8%	0.0%	0.0%	0.0%	2.6%
	Rural	87.1%	27.4%	13.9%	0.3%	0.0%	28.4%
	Overall	86.5%	26.9%	13.2%	0.3%	0.0%	25.5%
Water and Soap Available for Hand Washing	Urban	50.0%	58.6%	80.0%	82.9%	91.9%	87.0%
	Rural	62.0%	70.9%	92.2%	95.1%	97.0%	81.6%
	Overall	61.8%	70.6%	91.5%	94.4%	94.9%	82.3%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Malakwal	99.9%	97.8%	96.3%	98.0%
	Mandi Bahauddin	99.7%	94.1%	87.1%	93.7%
	Phalia	98.1%	96.6%	89.7%	94.8%
Access to Piped Water	Malakwal	1.0%	0.2%	2.5%	1.2%
	Mandi Bahauddin	1.9%	1.9%	3.5%	2.4%
	Phalia	1.8%	1.2%	5.1%	2.7%
Improved Sanitation	Malakwal	24.0%	85.2%	96.8%	68.3%
	Mandi Bahauddin	48.8%	98.6%	99.0%	81.9%
	Phalia	18.4%	92.5%	99.6%	71.3%
Open Defecation	Malakwal	75.5%	14.5%	2.0%	31.0%
	Mandi Bahauddin	50.4%	1.4%	0.0%	17.3%
	Phalia	68.5%	8.8%	0.4%	28.3%
Water and Soap Available for Hand Washing	Malakwal	60.2%	87.2%	93.6%	79.7%
	Mandi Bahauddin	73.2%	89.8%	94.3%	85.7%
	Phalia	72.1%	75.4%	96.6%	81.1%

Indices	District		Tehsils	
	Mandi Bahauddin	Malakwal	Mandi Bahauddin	Phalia
Exposure Index	1.84	2.15	1.75	1.76
Susceptibility Index	0.39	0.45	0.35	0.41
Sanitation Index	2.23	2.60	2.10	2.17

Figure 34 - Improved water in district Mandi Bahauddin

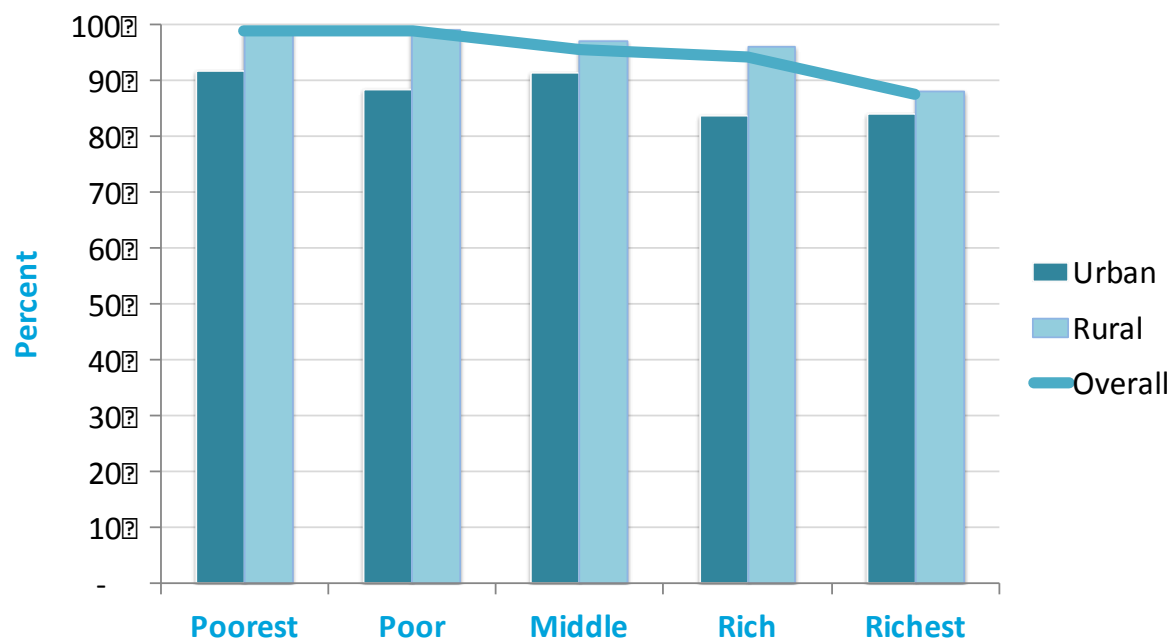
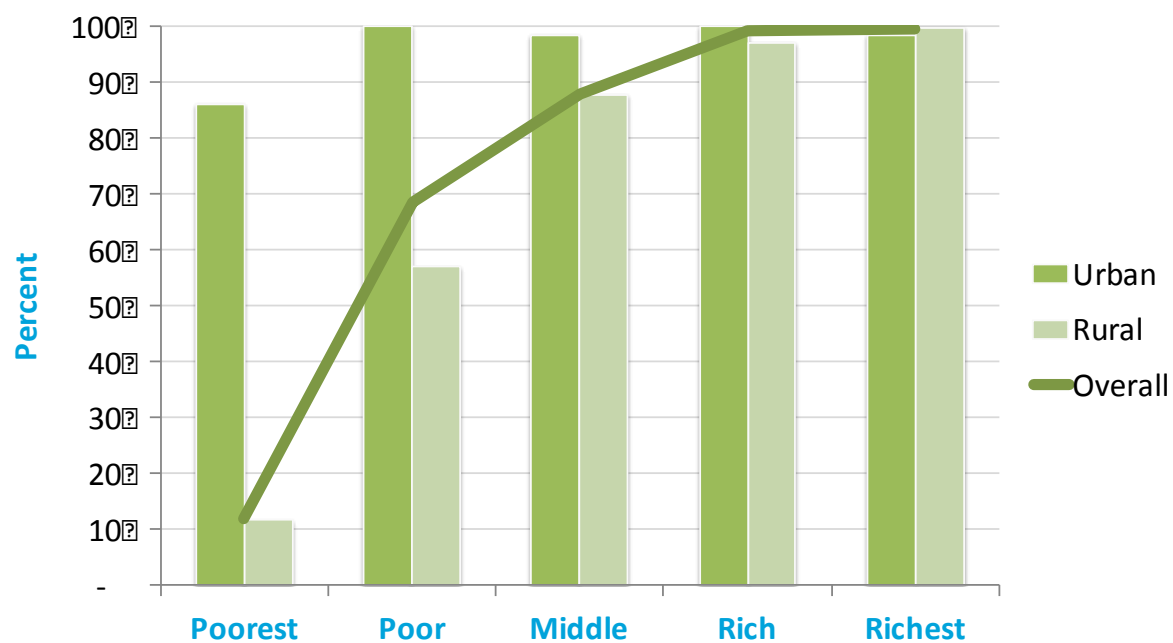


Figure 35 - Improved sanitation in district Mandi Bahauddin



Narowal

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	88.6%	82.7%	79.4%	90.6%	86.9%	85.6%
	Rural	95.9%	95.5%	93.2%	93.1%	93.8%	94.3%
	Overall	96.2%	94.2%	93.0%	91.4%	91.5%	93.3%
Access to Piped Water	Urban	38.2%	49.5%	39.3%	43.8%	34.7%	38.7%
	Rural	2.9%	4.1%	5.9%	4.8%	4.7%	4.5%
	Overall	3.8%	6.6%	9.0%	9.4%	13.8%	8.5%
Improved Sanitation	Urban	87.5%	100.0%	100.0%	100.0%	97.8%	97.1%
	Rural	30.8%	80.7%	94.3%	98.0%	99.6%	80.7%
	Overall	36.3%	82.7%	96.4%	98.3%	99.4%	82.6%
Open Defecation	Urban	22.5%	8.1%	0.0%	0.0%	0.0%	1.7%
	Rural	64.2%	17.2%	3.6%	0.8%	0.5%	18.9%
	Overall	63.1%	16.7%	3.3%	0.7%	0.3%	16.8%
Water and Soap Available for Hand Washing	Urban	67.2%	80.2%	84.7%	88.7%	95.8%	90.2%
	Rural	78.8%	88.5%	92.1%	97.5%	98.9%	90.3%
	Overall	78.5%	88.1%	91.5%	96.5%	98.1%	90.3%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Narowal	88.4%	80.8%	77.5%	82.3%
	Shakargarh	100.0%	100.0%	99.8%	99.9%
	Zafarwal	97.5%	97.9%	97.2%	97.5%
Access to Piped Water	Narowal	10.8%	18.1%	23.0%	17.3%
	Shakargarh	0.7%	1.8%	4.0%	2.2%
	Zafarwal	5.3%	5.3%	12.8%	7.8%
Improved Sanitation	Narowal	67.3%	97.3%	98.2%	87.5%
	Shakargarh	46.6%	92.5%	99.7%	79.3%
	Zafarwal	47.7%	98.6%	99.9%	81.8%
Open Defecation	Narowal	31.3%	2.7%	0.6%	11.5%
	Shakargarh	53.5%	7.6%	0.0%	20.4%
	Zafarwal	52.9%	1.4%	0.0%	18.1%
Water and Soap Available for Hand Washing	Narowal	71.1%	88.6%	97.7%	85.4%
	Shakargarh	90.6%	96.1%	97.6%	94.7%
	Zafarwal	79.9%	89.4%	96.9%	88.3%

Indices	District		Tehsils	
	Narowal	Narowal	Shakargarh	Zafarwal
Exposure Index	1.69	1.56	1.34	NA
Susceptibility Index	0.51	0.55	0.58	0.47
Sanitation Index	2.20	2.11	1.92	NA

Figure 36 - Improved water in district Narowal

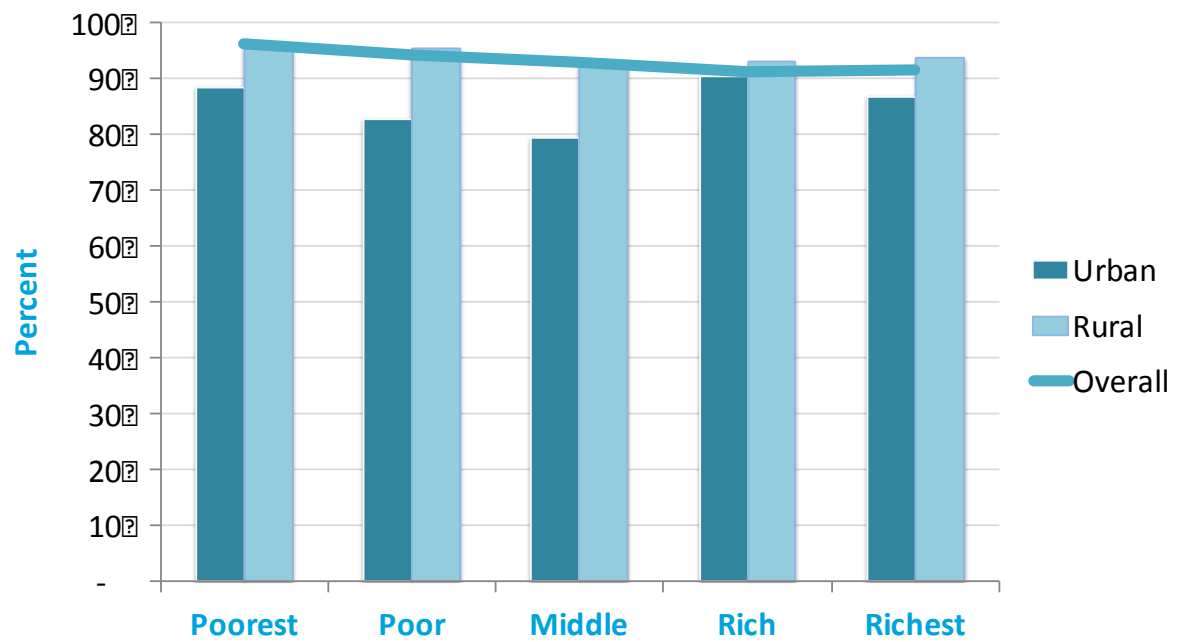
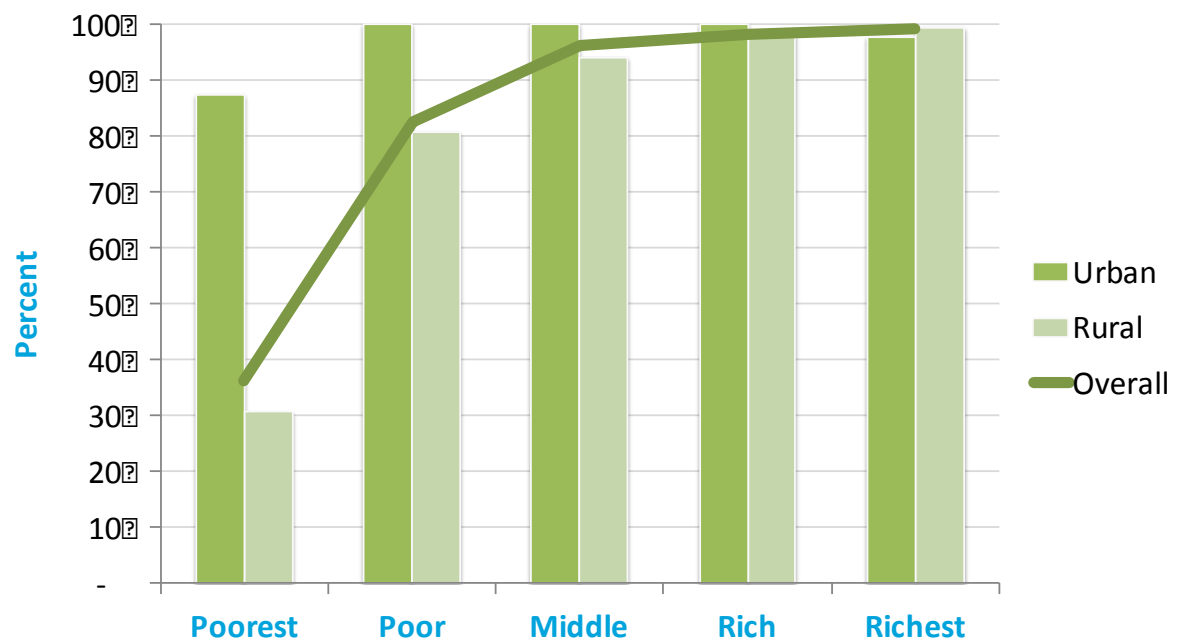


Figure 37 - Improved sanitation in district Narowal



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	93.0%	90.4%	88.9%	83.7%	74.2%	86.0%
	Rural	98.6%	97.7%	95.6%	90.9%	88.9%	94.3%
	Overall	98.4%	96.5%	93.5%	89.6%	83.9%	92.4%
Access to Piped Water	Urban	20.5%	24.8%	41.1%	35.0%	32.7%	33.5%
	Rural	4.3%	5.6%	6.3%	4.9%	5.6%	5.3%
	Overall	4.9%	6.8%	11.1%	14.3%	22.3%	11.9%
Improved Sanitation	Urban	98.6%	100.0%	98.0%	100.0%	100.0%	99.3%
	Rural	61.1%	95.4%	98.6%	99.5%	99.8%	90.9%
	Overall	68.6%	97.1%	99.2%	99.9%	99.5%	92.9%
Open Defecation	Urban	6.2%	0.0%	0.0%	0.0%	0.0%	0.2%
	Rural	29.6%	2.4%	0.3%	0.0%	0.0%	8.1%
	Overall	28.8%	2.3%	0.2%	0.0%	0.0%	6.3%
Water and Soap Available for Hand Washing	Urban	84.3%	84.5%	98.1%	98.1%	99.2%	97.6%
	Rural	79.1%	89.2%	93.8%	96.1%	98.0%	89.7%
	Overall	79.3%	88.9%	94.4%	96.7%	98.8%	91.6%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Daska	100.0%	100.0%	99.0%	99.7%
	Pasrur	98.7%	99.6%	97.7%	98.6%
	Sambrial	93.9%	95.8%	93.6%	94.4%
	Sialkot	90.7%	84.2%	78.3%	84.5%
Access to Piped Water	Daska	1.0%	4.2%	7.8%	4.4%
	Pasrur	6.8%	5.6%	22.3%	11.6%
	Sambrial	11.8%	13.9%	11.5%	12.4%
	Sialkot	9.0%	14.2%	24.3%	15.8%
Improved Sanitation	Daska	90.0%	99.4%	100.0%	96.4%
	Pasrur	58.1%	96.5%	100.0%	84.6%
	Sambrial	80.6%	98.1%	99.2%	92.5%
	Sialkot	88.9%	99.6%	99.5%	95.9%
Open Defecation	Daska	7.8%	0.3%	0.0%	2.7%
	Pasrur	40.4%	3.5%	0.0%	14.6%
	Sambrial	16.0%	1.3%	0.0%	5.8%
	Sialkot	10.0%	0.0%	0.0%	3.3%
Water and Soap Available for Hand Washing	Daska	87.6%	87.8%	96.5%	90.7%
	Pasrur	69.1%	90.2%	96.5%	85.0%
	Sambrial	85.6%	91.9%	97.2%	91.7%
	Sialkot	91.4%	96.6%	99.05	95.7%

Indices	District		Tehsils		
	Sialkot	Daska	Pasrur	Sambrial	Sialkot
Exposure Index	1.34	1.07	1.63	NA	16.27
Susceptibility Index	0.60	0.53	0.54	0.44	0.68
Sanitation Index	1.94	1.59	2.16	NA	16.95

Figure 38 - Improved water in district Sialkot

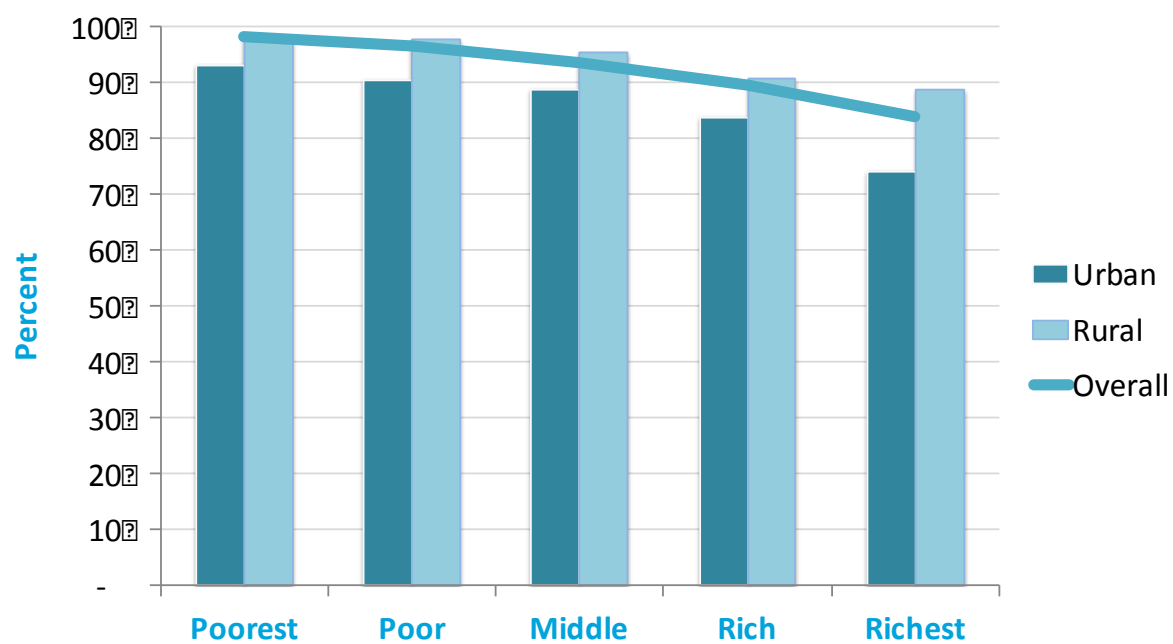


Figure 39 - Improved sanitation in district Sialkot



Lahore

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	96.2%	94.3%	95.5%	93.1%	81.5%	92.1%
	Rural	99.0%	100.0%	99.5%	100.0%	96.9%	99.1%
	Overall	98.2%	96.7%	95.3%	95.8%	83.0%	93.8%
Access to Piped Water	Urban	80.7%	87.6%	89.1%	90.8%	80.0%	86.1%
	Rural	11.5%	18.9%	20.6%	15.6%	16.4%	14.8%
	Overall	36.9%	68.8%	80.4%	82.6%	76.3%	69.0%
Improved Sanitation	Urban	96.8%	98.8%	99.5%	99.9%	99.9%	99.0%
	Rural	71.9%	94.1%	97.0%	99.4%	99.5%	92.4%
	Overall	89.0%	99.1%	99.2%	99.9%	99.8%	97.4%
Open Defecation	Urban	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Rural	8.8%	0.2%	0.0%	1.0%	0.0%	4.8%
	Overall	5.6%	0.1%	0.0%	0.1%	0.0%	1.1%
Water and Soap Available for Hand Washing	Urban	81.8%	93.8%	95.2%	98.1%	97.5%	94.8%
	Rural	86.2%	98.2%	93.3%	92.4%	100.0%	90.9%
	Overall	84.4%	94.9%	94.9%	97.5%	97.6%	93.9%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Cantonment	91.1%	75.0%	76.7%	81.0%
	Aziz Bhatti Town	98.8%	96.8%	95.7%	97.1%
	Data Ganj Bakhsh Town	97.7%	97.8%	87.3%	94.3%
	Gulberg Town	99.0%	99.8%	80.0%	92.9%
	Iqbal Town	100.0%	98.1%	95.2%	97.8%
	Nishtar Town	98.8%	99.1%	93.5%	97.2%
	Ravi Town	95.7%	97.5%	93.3%	95.5%
	Samanabad Town	90.8%	85.3%	79.2%	85.2%
	Shalimar Town	93.0%	94.5%	79.2%	88.9%
	Wagha Town	97.8%	99.3%	91.5%	96.2%
Access to Piped Water	Cantonment	68.3%	55.9%	72.1%	65.4%
	Aziz Bhatti Town	76.0%	84.3%	87.0%	82.4%
	Data Ganj Bakhsh Town	85.5%	96.1%	85.2%	88.9%
	Gulberg Town	99.0%	98.9%	78.8%	92.2%
	Iqbal Town	26.9%	51.4%	58.1%	45.5%
	Nishtar Town	20.5%	60.6%	83.2%	54.8%
	Ravi Town	85.4%	93.2%	90.3%	89.7%
	Samanabad Town	90.7%	83.3%	77.5%	83.9%
	Shalimar Town	91.7%	93.4%	78.6%	87.9%
	Wagha Town	5.9%	34.4%	67.9%	36.0%
Improved Sanitation	Cantonment	92.5%	97.9%	99.3%	96.5%
	Aziz Bhatti Town	96.5%	99.3%	99.9%	98.6%
	Data Ganj Bakhsh Town	99.9%	100.0%	100.0%	100.0%
	Gulberg Town	100.0%	100.0%	100.0%	100.0%
	Iqbal Town	88.8%	98.8%	100.0%	95.8%
	Nishtar Town	90.9%	99.7%	100.0%	96.8%

	Ravi Town	98.4%	99.8%	99.6%	99.2%
	Samanabad Town	99.8%	100.0%	100.0%	99.9%
	Shalimar Town	100.0%	99.5%	100.0%	99.8%
	Wagha Town	72.6%	92.4%	98.1%	87.5%
Open Defecation	Cantonment	0.0%	0.0%	0.0%	0.0%
	Aziz Bhatti Town	0.9%	0.0%	0.0%	0.3%
	Data Ganj Bakhsh Town	0.0%	0.0%	0.0%	0.0%
	Gulberg Town	0.0%	0.0%	0.0%	0.0%
	Iqbal Town	5.5%	0.0%	0.0%	1.8%
	Nishtar Town	4.7%	0.0%	0.0%	1.6%
	Ravi Town	0.0%	0.0%	0.0%	0.0%
	Samanabad Town	0.0%	0.0%	0.0%	0.0%
	Shalimar Town	0.0%	0.0%	0.0%	0.0%
	Wagha Town	19.9%	3.2%	1.1%	8.1%
Water and Soap Available for Hand Washing	Cantonment	79.8%	96.4%	98.7%	91.4%
	Aziz Bhatti Town	89.6%	97.3%	100.0%	95.5%
	Data Ganj Bakhsh Town	92.8%	98.4%	99.6%	97.0%
	Gulberg Town	98.0%	100.0%	98.1%	98.7%
	Iqbal Town	84.2%	94.1%	93.1%	90.6%
	Nishtar Town	86.6%	90.2%	91.9%	89.5%
	Ravi Town	92.8%	96.1%	99.3%	96.0%
	Samanabad Town	97.0%	100.0%	100.0%	98.9%
	Shalimar Town	91.1%	97.3%	95.8%	94.7%
	Wagha Town	83.6%	96.7%	99.1%	93.5%

Indices	District		Tehsils								
	Lahore	Cantonment	Aziz Bhatti Town	Bakhsh Town	Gulberg Town	Iqbal Town	Nishtar Town	Ravi Town	Samanabad Town	Shalimar Town	Wagha Town
Exposure Index	1.21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Susceptibility Index	0.45	0.23	0.71	0.29	0.28	0.36	0.57	0.49	0.36	0.36	0.44
Sanitation Index	1.67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Figure 40 - Improved water in district Lahore

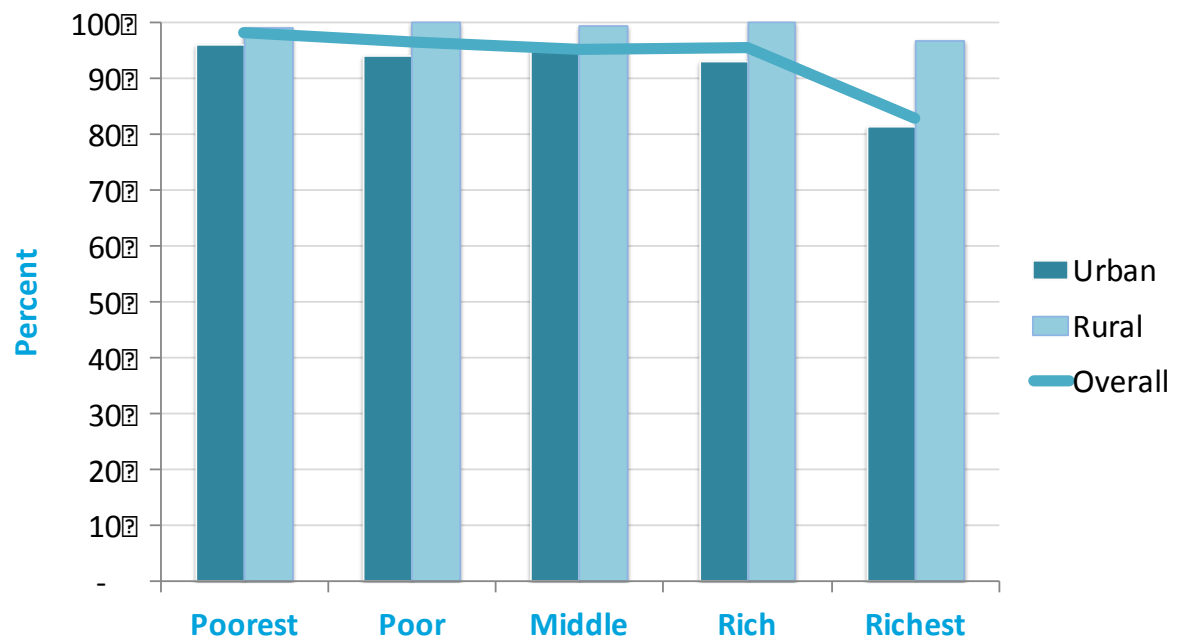
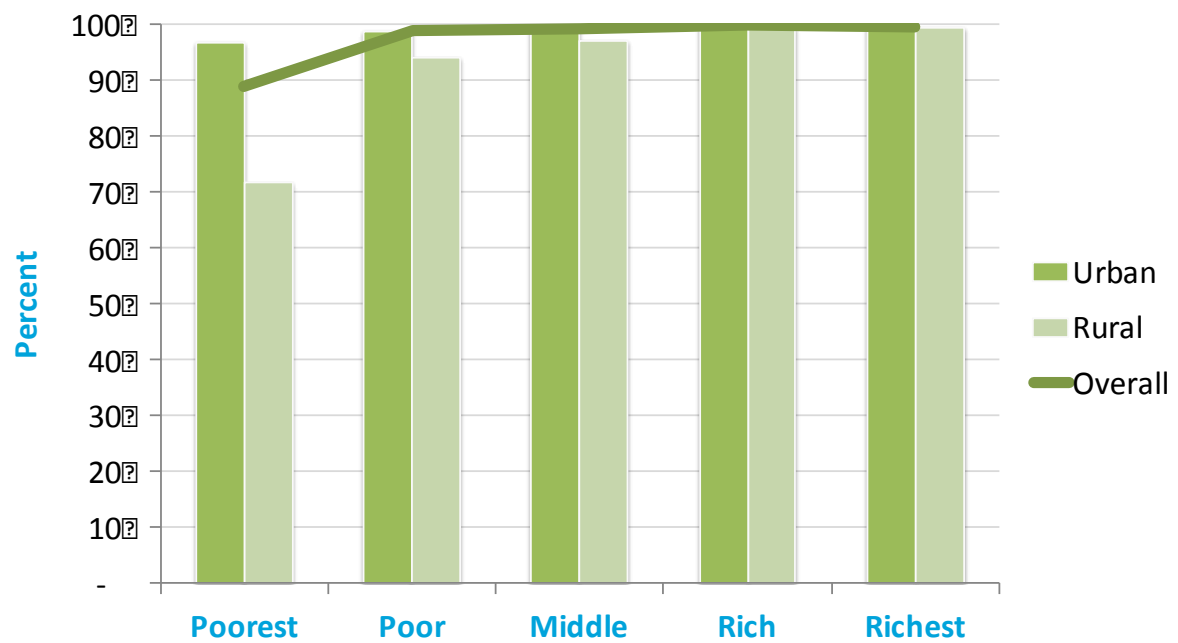


Figure 41 - Improved sanitation in district Lahore



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	97.1%	95.4%	95.4%	94.6%	81.5%	92.8%
	Rural	97.4%	96.2%	96.8%	93.3%	98.4%	96.4%
	Overall	96.7%	96.6%	94.5%	96.9%	93.1%	95.6%
Access to Piped Water	Urban	35.9%	34.0%	25.8%	39.5%	37.3%	36.1%
	Rural	8.6%	8.0%	13.4%	15.6%	20.2%	11.8%
	Overall	8.8%	9.6%	15.5%	23.1%	31.2%	17.6%
Improved Sanitation	Urban	90.2%	94.9%	94.1%	92.4%	100.0%	94.3%
	Rural	12.2%	43.9%	81.3%	93.2%	97.7%	65.7%
	Overall	16.1%	63.9%	90.1%	96.1%	96.5%	72.5%
Open Defecation	Urban	23.7%	0.0%	0.5%	0.0%	0.0%	0.3%
	Rural	80.0%	31.0%	5.4%	0.6%	0.3%	29.8%
	Overall	79.5%	29.1%	4.5%	0.4%	0.1%	22.7%
Water and Soap Available for Hand Washing	Urban	90.2%	79.3%	89.6%	97.1%	98.6%	95.5%
	Rural	59.0%	74.4%	87.6%	93.3%	97.4%	78.3%
	Overall	59.3%	74.7%	88.0%	94.6%	98.2%	82.6%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Chunian	94.7%	87.8%	94.9%	92.5%
	Kasur	98.9%	99.1%	98.3%	98.8%
	Kot Radha Kishan	88.9%	90.8%	97.2%	92.3%
	Pattoki	97.9%	98.8%	88.2%	95.0%
Access to Piped Water	Chunian	7.9%	5.7%	21.5%	11.7%
	Kasur	11.7%	29.3%	48.3%	29.8%
	Kot Radha Kishan	2.1%	2.7%	8.4%	4.4%
	Pattoki	7.5%	12.2%	9.3%	9.7%
Improved Sanitation	Chunian	31.3%	89.6%	97.7%	72.5%
	Kasur	21.5%	83.5%	95.4%	66.4%
	Kot Radha Kishan	62.7%	89.6%	96.4%	82.7%
	Pattoki	44.2%	94.5%	97.8%	78.5%
Open Defecation	Chunian	65.1%	8.3%	0.0%	24.7%
	Kasur	74.1%	10.4%	0.2%	28.2%
	Kot Radha Kishan	32.8%	2.0%	0.0%	11.7%
	Pattoki	47.8%	0.5%	0.0%	16.1%
Water and Soap Available for Hand Washing	Chunian	74.9%	86.0%	95.8%	85.1%
	Kasur	56.5%	88.3%	97.6%	81.1%
	Kot Radha Kishan	60.5%	92.6%	98.0%	83.5%
	Pattoki	65.4%	86.0%	95.7%	81.9%

Indices	District		Tehsils		
	Kasur	Chunian	Kasur	Kot Radha Kishan	Pattoki
Exposure Index	2.40	2.27	2.82	NA	2.31
Susceptibility Index	0.20	0.16	0.16	0.15	0.28
Sanitation Index	2.60	2.43	2.97	NA	2.59

Figure 42 - Improved water in district Kasur

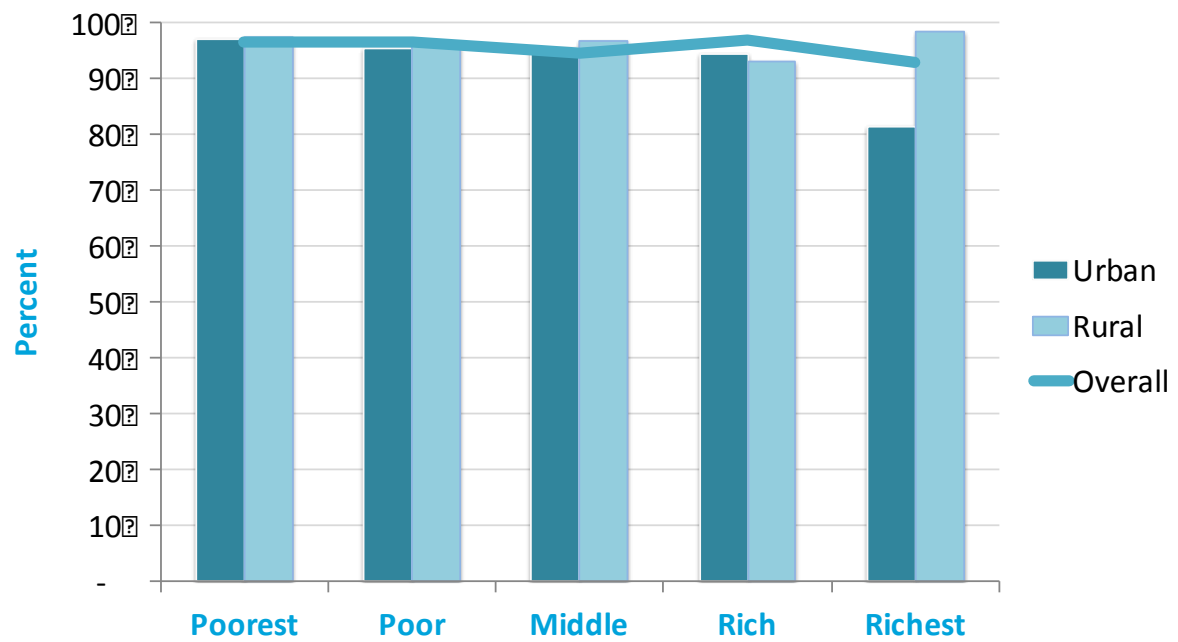
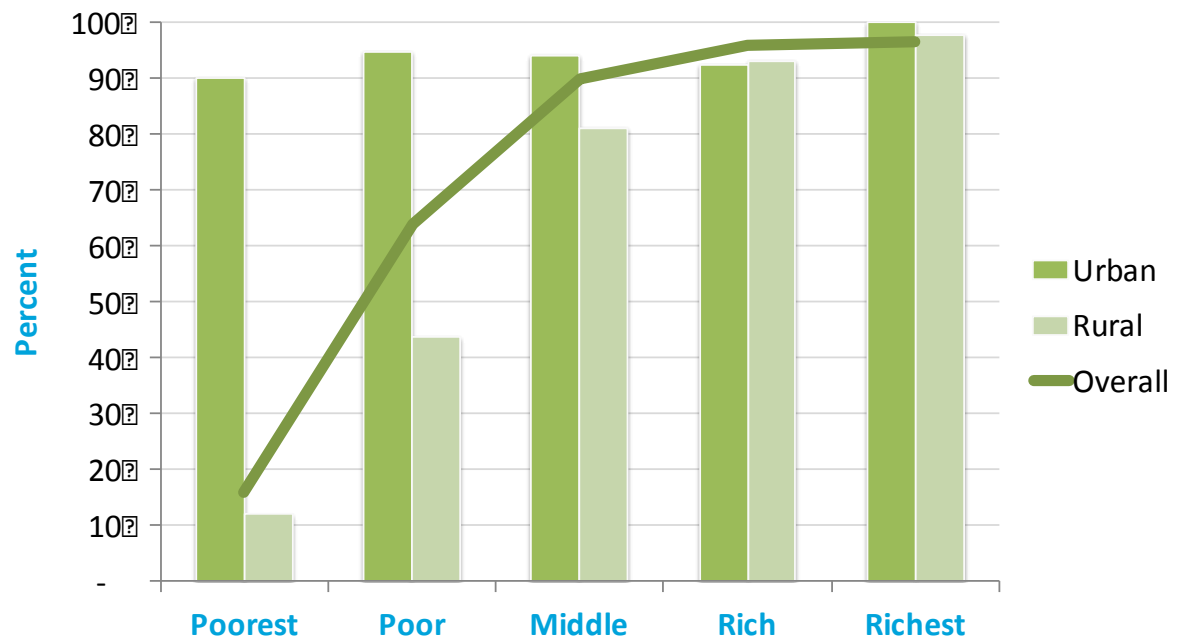


Figure 43 - Improved sanitation in district Kasur



Nankana Sahib

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	83.1%	73.8%	56.2%	68.0%	51.3%	66.5%
	Rural	96.9%	98.3%	98.2%	99.3%	96.2%	97.8%
	Overall	96.7%	97.3%	97.2%	94.0%	70.4%	91.1%
Access to Piped Water	Urban	3.5%	7.0%	3.1%	6.2%	5.8%	5.6%
	Rural	1.0%	2.6%	2.2%	2.3%	3.5%	2.1%
	Overall	1.0%	2.9%	2.3%	3.2%	5.0%	2.9%
Improved Sanitation	Urban	91.6%	99.3%	99.8%	99.0%	100.0%	97.9%
	Rural	18.7%	64.3%	88.5%	97.3%	99.1%	73.6%
	Overall	23.8%	78.1%	94.1%	98.0%	99.7%	78.8%
Open Defecation	Urban	38.5%	5.6%	0.0%	0.0%	0.0%	1.3%
	Rural	74.5%	19.5%	5.4%	0.5%	0.0%	24.4%
	Overall	73.5%	18.8%	4.8%	0.4%	0.0%	19.5%
Water and Soap Available for Hand Washing	Urban	55.5%	82.2%	89.5%	88.8%	97.3%	92.8%
	Rural	48.5%	71.3%	87.8%	94.0%	97.4%	75.1%
	Overall	48.6%	71.9%	88.0%	92.8%	97.4%	78.8%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Safdarabad	98.6%	100.0%	94.0%	97.5%
	Shahkot	96.1%	91.7%	60.1%	82.7%
	Sangla Hill	99.5%	92.1%	56.2%	82.7%
	Nankana Sahib	96.2%	97.7%	88.4%	94.1%
Access to Piped Water	Safdarabad	0.3%	0.3%	1.1%	0.6%
	Shahkot	1.5%	2.1%	1.3%	1.7%
	Sangla Hill	3.1%	1.2%	5.1%	3.1%
	Nankana Sahib	1.5%	3.5%	6.8%	3.9%
Improved Sanitation	Safdarabad	66.8%	98.5%	97.4%	87.5%
	Shahkot	67.3%	100.0%	99.9%	88.9%
	Sangla Hill	62.4%	97.3%	100.0%	86.4%
	Nankana Sahib	29.8%	85.2%	98.6%	70.9%
Open Defecation	Safdarabad	25.8%	0.0%	0.0%	8.6%
	Shahkot	31.6%	0.0%	0.0%	10.6%
	Sangla Hill	36.8%	0.0%	0.0%	12.3%
	Nankana Sahib	68.0%	13.6%	0.9%	27.6%
Water and Soap Available for Hand Washing	Safdarabad	76.1%	95.4%	95.5%	88.5%
	Shahkot	74.5%	86.9%	96.1%	85.0%
	Sangla Hill	66.7%	90.9%	98.4%	84.3%
	Nankana Sahib	47.0%	77.5%	96.1%	72.8%

Indices	District		Tehsils		
	Nankana Sahib	Safdarabad	Shahkot	Sangla Hill	Nankana Sahib
Exposure Index	1.79	NA	NA	NA	NA
Susceptibility Index	0.82	0.84	0.50	0.42	1.07
Sanitation Index	2.61	NA	NA	NA	NA

Figure 44 - Improved water in Nankana Sahib

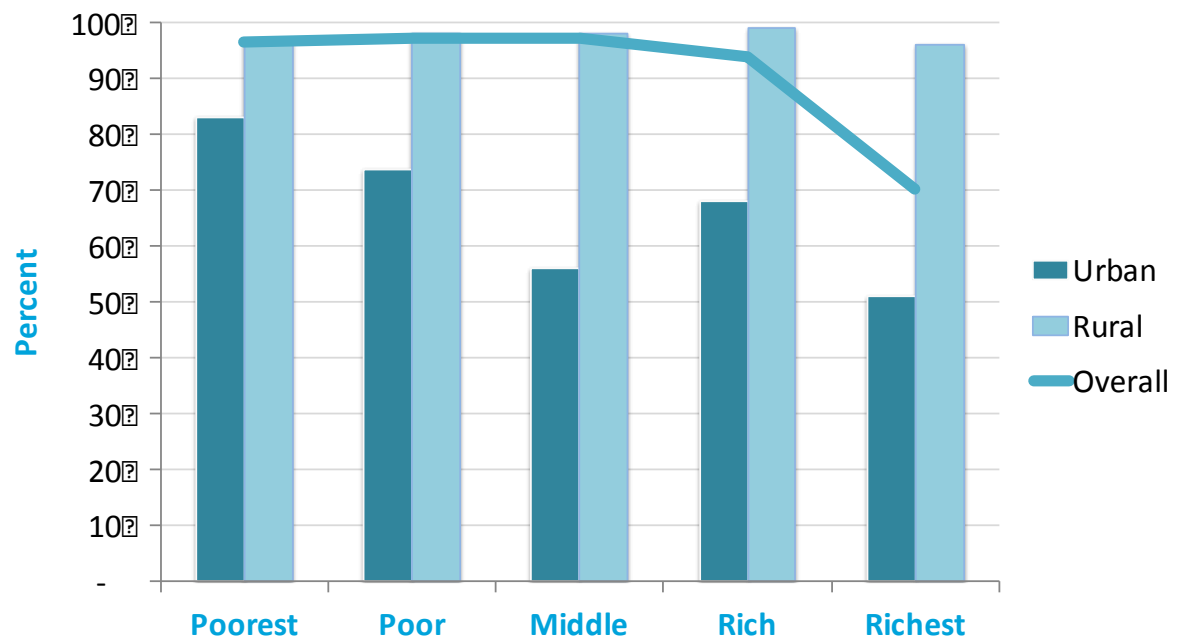
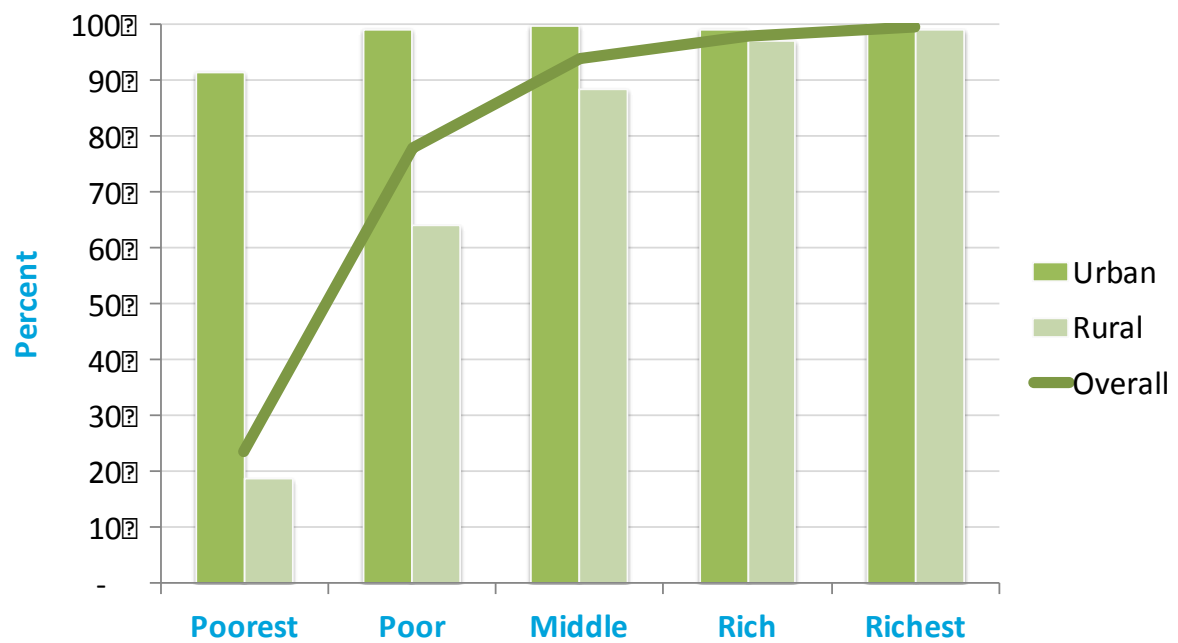


Figure 45 - Improved sanitation in district Nankana Sahib



Sheikhupura

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	96.6%	95.9%	96.6%	96.9%	86.5%	94.5%
	Rural	97.4%	99.3%	99.3%	99.5%	95.6%	98.2%
	Overall	97.9%	99.6%	98.4%	96.6%	92.7%	97.0%
Access to Piped Water	Urban	12.5%	22.0%	40.5%	33.4%	25.6%	29.4%
	Rural	2.4%	2.9%	2.6%	1.2%	10.3%	2.9%
	Overall	2.8%	4.6%	10.6%	16.1%	22.4%	11.3%
Improved Sanitation	Urban	95.1%	97.9%	98.9%	100.0%	99.4%	98.3%
	Rural	44.3%	81.4%	89.6%	94.1%	96.7%	81.3%
	Overall	55.8%	86.6%	94.6%	96.8%	99.4%	86.7%
Open Defecation	Urban	15.6%	0.0%	0.0%	0.0%	0.0%	0.4%
	Rural	35.1%	3.7%	0.8%	0.0%	0.0%	11.1%
	Overall	34.4%	3.4%	0.7%	0.0%	0.0%	7.7%
Water and Soap Available for Hand Washing	Urban	80.1%	76.1%	87.2%	89.5%	98.1%	92.2%
	Rural	67.4%	86.7%	92.6%	97.7%	92.3%	84.0%
	Overall	67.8%	85.6%	91.2%	93.7%	97.0%	86.7%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Ferozewala	97.5%	99.0%	98.6%	98.3%
	Muridke	97.3%	94.1%	89.7%	93.7%
	Sharaqpur	98.9%	98.6%	92.5%	96.7%
	Sheikhupura	99.4%	99.2%	95.1%	97.9%
Access to Piped Water	Ferozewala	2.1%	16.7%	42.8%	20.5%
	Muridke	7.0%	9.3%	24.7%	13.6%
	Sharaqpur	9.2%	10.0%	24.5%	14.6%
	Sheikhupura	0.8%	6.6%	11.2%	6.2%
Improved Sanitation	Ferozewala	52.5%	83.3%	97.1%	77.4%
	Muridke	76.5%	98.8%	99.8%	91.6%
	Sharaqpur	76.8%	99.0%	100.0%	91.8%
	Sheikhupura	70.3%	92.7%	98.4%	87.0%
Open Defecation	Ferozewala	25.5%	0.4%	0.0%	8.6%
	Muridke	21.1%	0.1%	0.0%	7.1%
	Sharaqpur	16.9%	0.0%	0.0%	5.7%
	Sheikhupura	22.6%	1.5%	0.0%	8.1%
Water and Soap Available for Hand Washing	Ferozewala	69.4%	86.9%	93.2%	83.2%
	Muridke	63.8%	91.5%	94.2%	82.2%
	Sharaqpur	86.9%	95.5%	96.3%	92.7%
	Sheikhupura	77.2%	93.2%	95.6%	88.3%

Indices	District	Tehsils			
	Sheikhupura	Ferozewala	Muridke	Sharaqpur	Sheikhupura
Exposure Index	1.67	NA	NA	NA	NA
Susceptibility Index	0.49	0.52	0.60	0.41	0.40
Sanitation Index	2.16	NA	NA	NA	NA

Figure 46 - Improved water in Sheikhpura

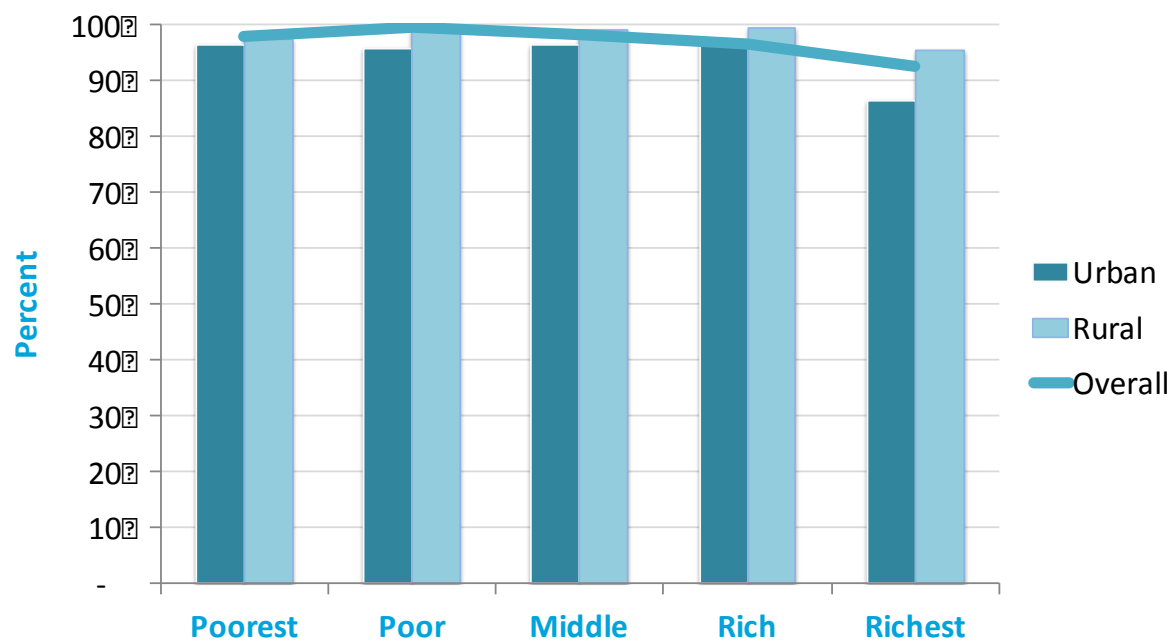
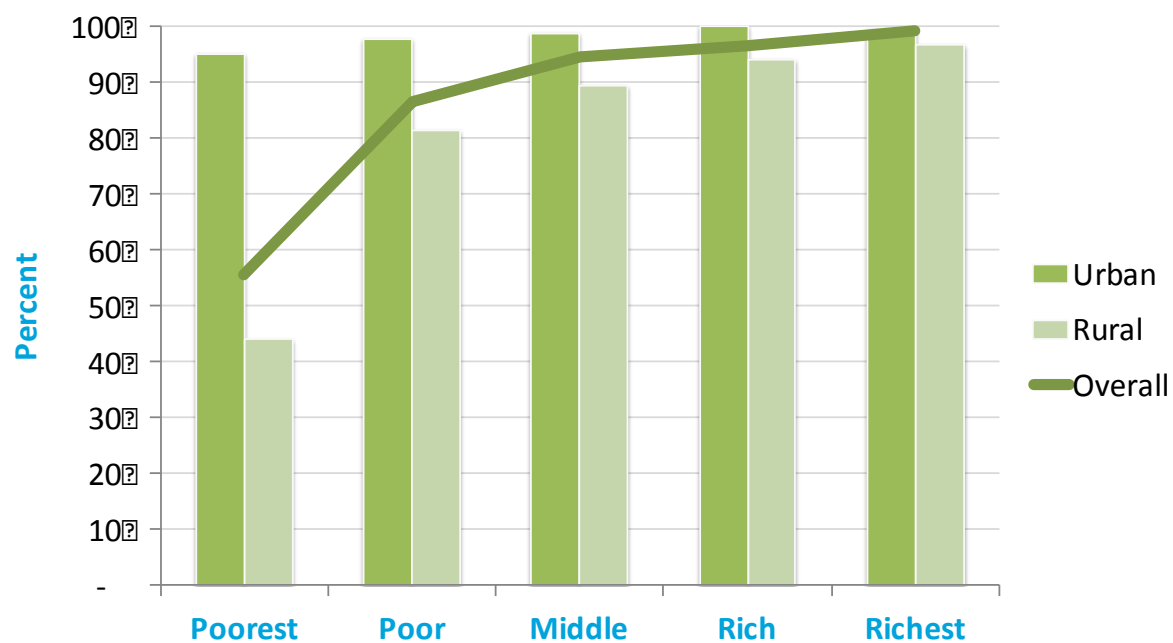


Figure 47 - Improved sanitation in district Sheikhpura



Multan

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	96.7%	93.3%	93.1%	89.2%	77.9%	90.0%
	Rural	98.9%	98.3%	97.2%	98.4%	95.9%	97.7%
	Overall	98.5%	97.3%	98.1%	94.7%	86.5%	95.0%
Access to Piped Water	Urban	13.6%	36.9%	30.2%	24.5%	22.4%	24.8%
	Rural	7.1%	3.7%	1.8%	0.7%	1.4%	3.8%
	Overall	7.2%	5.6%	9.8%	15.2%	18.1%	11.2%
Improved Sanitation	Urban	59.0%	60.8%	69.9%	83.0%	92.9%	73.1%
	Rural	3.2%	15.1%	30.1%	34.6%	63.9%	29.4%
	Overall	6.3%	27.8%	42.8%	63.1%	83.7%	44.8%
Open Defecation	Urban	36.6%	1.9%	1.5%	0.3%	0.0%	0.6%
	Rural	82.8%	29.9%	3.4%	0.4%	0.0%	34.8%
	Overall	82.3%	28.3%	2.9%	0.3%	0.0%	22.8%
Water and Soap Available for Hand Washing	Urban	22.1%	38.8%	67.2%	87.7%	97.1%	86.1%
	Rural	12.8%	33.8%	64.9%	81.5%	92.2%	43.4%
	Overall	12.9%	34.1%	65.6%	85.2%	96.1%	58.2%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Bosan Town	99.7%	97.5%	86.6%	94.7%
	Mousa Pak (Shaheed) Town	96.0%	94.1%	91.4%	93.8%
	Shah Rukn-E-Alam Town	99.8%	96.2%	87.3%	94.5%
	Sher Shah Town	99.8%	96.7%	86.1%	94.3%
	Jalalpur Pirwala Town	96.4%	98.3%	93.5%	96.1%
	Shujabad Town	100.0%	98.5%	94.8%	97.8%
Access to Piped Water	Bosan Town	6.0%	10.3%	22.4%	12.9%
	Mousa Pak (Shaheed) Town	12.7%	15.6%	13.8%	14.1%
	Shah Rukn-E-Alam Town	8.1%	19.9%	19.7%	15.9%
	Sher Shah Town	5.0%	7.6%	11.7%	8.1%
	Jalalpur Pirwala Town	5.7%	8.9%	17.3%	10.6%
	Shujabad Town	7.2%	0.9%	0.4%	2.9%
Improved Sanitation	Bosan Town	38.3%	76.5%	97.6%	70.6%
	Mousa Pak (Shaheed) Town	20.7%	42.4%	60.5%	41.0%
	Shah Rukn-E-Alam Town	21.5%	60.1%	86.7%	55.9%
	Sher Shah Town	15.2%	40.2%	81.6%	45.4%
	Jalalpur Pirwala Town	2.9%	27.1%	40.3%	23.4%
	Shujabad Town	0.5%	13.0%	48.9%	20.7%
Open Defecation	Bosan Town	46.5%	2.4%	0.0%	16.3%
	Mousa Pak (Shaheed) Town	38.4%	0.9%	0.0%	13.1%
	Shah Rukn-E-Alam Town	35.3%	0.0%	0.0%	11.8%
	Sher Shah Town	45.8%	1.3%	0.0%	15.8%
	Jalalpur Pirwala Town	88.1%	43.0%	15.4%	49.0%
	Shujabad Town	92.4%	39.1%	0.1%	44.0%
Water and Soap Available for Hand Washing	Bosan Town	29.2%	70.1%	94.2%	64.3%
	Mousa Pak (Shaheed) Town	32.2%	77.3%	94.8%	66.5%
	Shah Rukn-E-Alam Town	33.2%	80.2%	98.0%	69.3%
	Sher Shah Town	24.1%	65.7%	94.1%	61.6%
	Jalalpur Pirwala Town	14.3%	28.8%	75.7%	38.3%
	Shujabad Town	5.2%	25.0%	84.6%	34.8%

Indices	District		Tehsils				
	Multan	Bosan Town	Mousa Pak (Shaheed) Town	Shah Rukn-E-Alam Town	Sher Shah Town	Jalalpur Pirwala Town	Shujabad Town
Exposure Index	5.30	NA	NA	NA	NA	11.34	5.44
Susceptibility Index	0.50	0.34	0.48	0.23	0.64	0.42	0.90
Sanitation Index	5.80	NA	NA	NA	NA	11.77	6.34

Figure 48 - Improved water in Multan

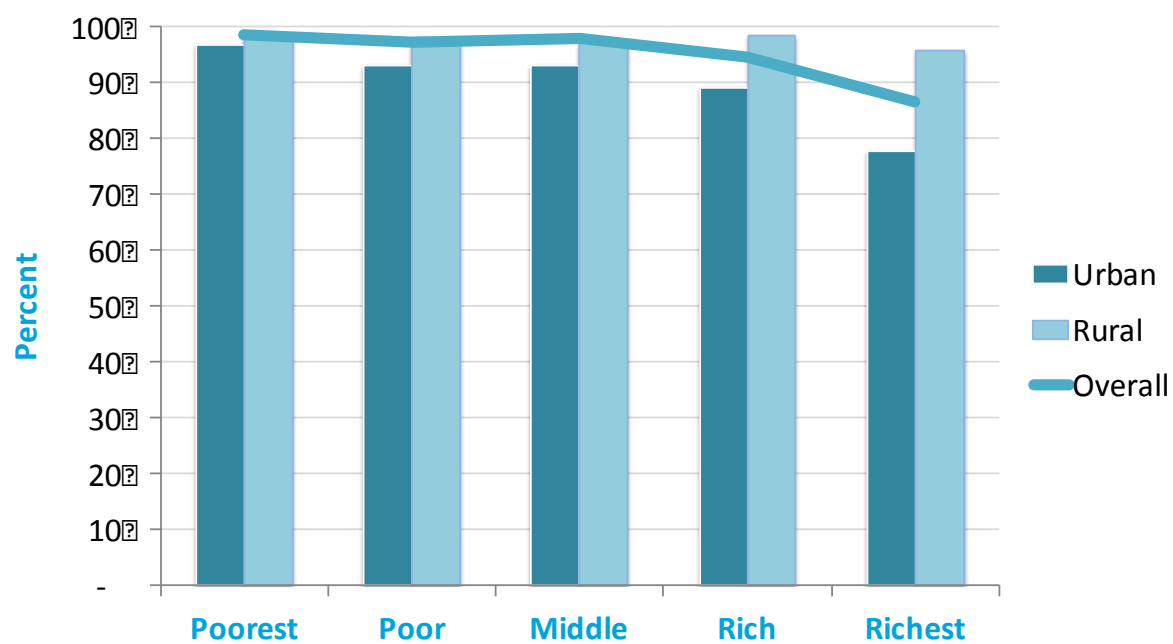
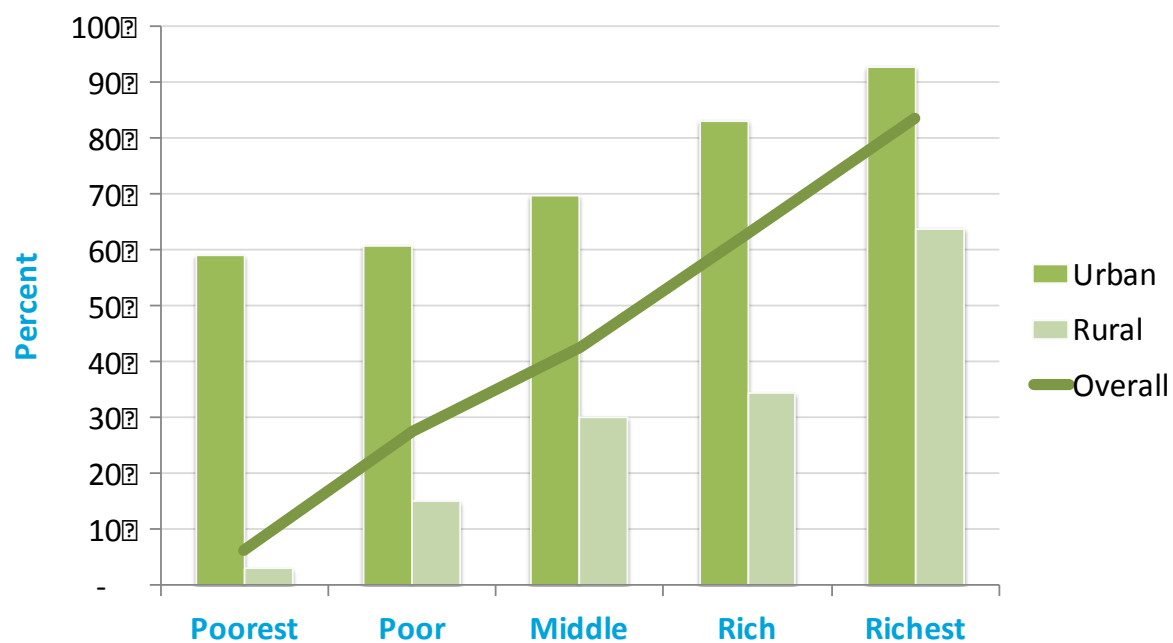


Figure 49 - Improved sanitation in district Multan



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	99.0%	100.0%	100.0%	99.3%	96.7%	99.0%
	Rural	99.5%	99.4%	98.8%	99.3%	99.1%	99.2%
	Overall	99.6%	99.0%	98.7%	99.8%	98.8%	99.2%
Access to Piped Water	Urban	8.5%	4.1%	11.3%	5.8%	10.8%	9.4%
	Rural	5.6%	6.4%	3.2%	1.5%	1.9%	4.1%
	Overall	5.6%	6.3%	3.9%	2.4%	7.3%	5.1%
Improved Sanitation	Urban	46.4%	55.9%	67.4%	78.1%	88.6%	67.3%
	Rural	12.6%	52.7%	75.5%	80.3%	83.3%	60.9%
	Overall	18.1%	60.7%	72.3%	78.9%	80.7%	62.1%
Open Defecation	Urban	43.4%	11.5%	4.5%	0.0%	0.0%	2.1%
	Rural	79.6%	26.0%	3.7%	1.4%	0.0%	26.6%
	Overall	78.6%	25.4%	3.8%	1.1%	0.0%	21.8%
Water and Soap Available for Hand Washing	Urban	23.5%	43.8%	58.6%	74.6%	89.2%	79.1%
	Rural	40.1%	57.9%	73.8%	86.5%	97.1%	65.5%
	Overall	39.7%	57.3%	72.4%	84.2%	92.4%	67.9%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Jahanian	97.5%	95.9%	97.5%	97.0%
	Kabirwala	100.0%	100.0%	99.3%	99.8%
	Khanewal	98.6%	99.7%	98.6%	98.9%
	Mian Channu	99.4%	99.3%	100.0%	99.6%
Access to Piped Water	Jahanian	5.7%	6.1%	9.1%	7.0%
	Kabirwala	4.0%	11.0%	1.0%	5.3%
	Khanewal	7.1%	2.4%	9.2%	6.2%
	Mian Channu	2.5%	0.7%	6.5%	3.3%
Improved Sanitation	Jahanian	50.9%	63.6%	80.4%	64.9%
	Kabirwala	9.7%	59.8%	76.2%	48.2%
	Khanewal	52.1%	86.4%	75.2%	71.1%
	Mian Channu	49.1%	75.9%	81.7%	68.8%
Open Defecation	Jahanian	31.5%	2.0%	0.0%	11.2%
	Kabirwala	87.5%	25.4%	0.6%	38.2%
	Khanewal	44.5%	4.5%	0.0%	16.4%
	Mian Channu	35.8%	1.7%	0.0%	12.6%
Water and Soap Available for Hand Washing	Jahanian	55.4%	82.9%	96.0%	77.8%
	Kabirwala	40.6%	61.5%	79.5%	59.4%
	Khanewal	44.8%	74.8%	94.0%	70.1%
	Mian Channu	49.3%	78.3%	91.6%	71.6%

Indices	District		Tehsils		
	Khanewal	Jahanian	Kabirwala	Khanewal	Mian Channu
Exposure Index	2.66	2.47	2.99	23.16	2.40
Susceptibility Index	0.82	0.78	0.77	0.98	0.83
Sanitation Index	3.49	3.24	3.76	24.14	3.23

Figure 50 - Improved water in Khanewal

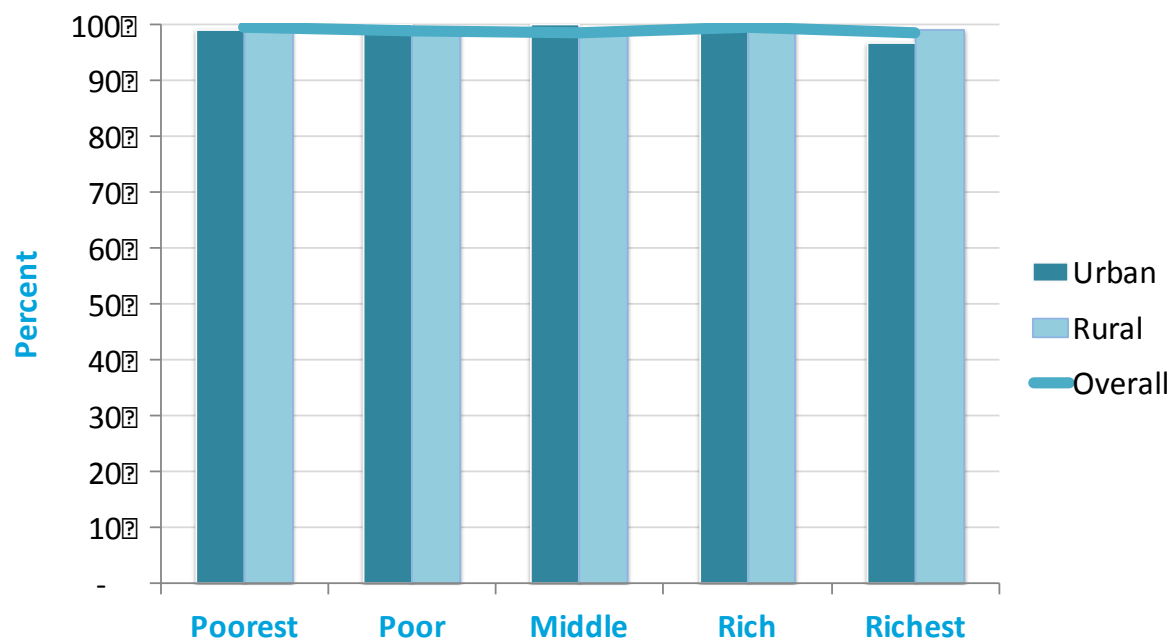
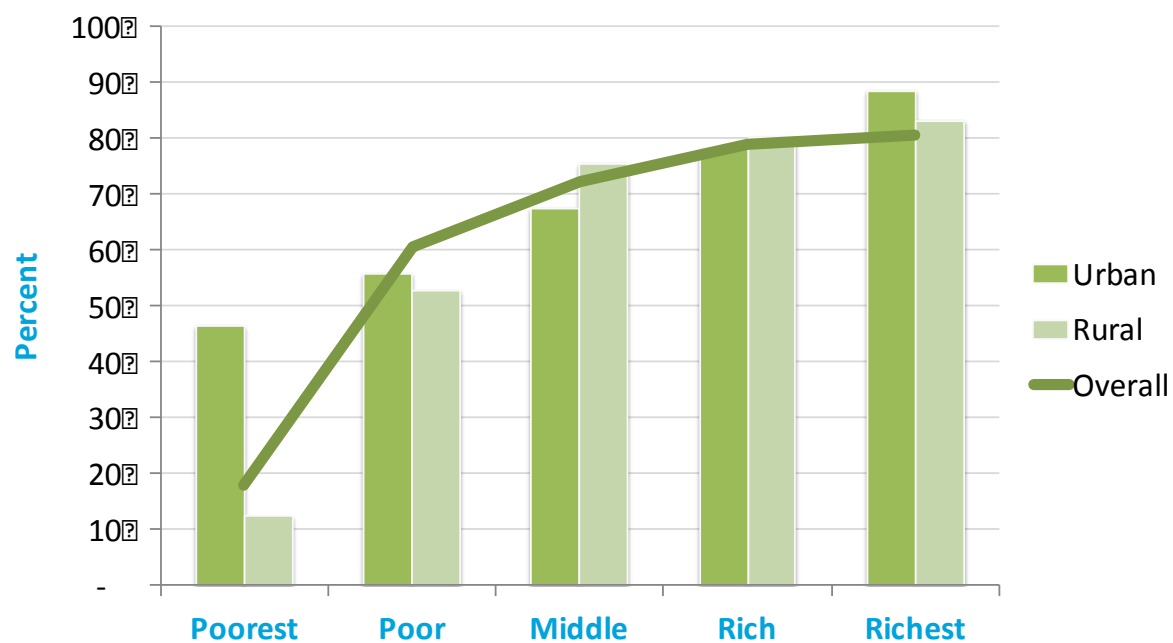


Figure 51 - Improved sanitation in district Khanewal



Lodhran

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	98.4%	98.4%	97.2%	92.1%	92.5%	95.7%
	Rural	98.8%	96.9%	99.1%	99.6%	97.2%	98.3%
	Overall	98.9%	97.0%	99.3%	99.1%	95.4%	97.9%
Access to Piped Water	Urban	43.8%	9.0%	16.2%	11.1%	13.4%	13.5%
	Rural	9.8%	16.8%	14.2%	18.0%	27.2%	16.0%
	Overall	10.2%	16.6%	14.3%	17.0%	20.0%	15.6%
Improved Sanitation	Urban	62.8%	82.2%	89.1%	96.3%	98.6%	85.8%
	Rural	10.2%	34.9%	70.5%	85.8%	98.3%	60.1%
	Overall	13.8%	42.8%	73.4%	93.9%	95.8%	64.0%
Open Defecation	Urban	100.0%	38.8%	22.5%	0.7%	0.0%	4.4%
	Rural	85.5%	55.4%	23.4%	3.4%	1.7%	38.9%
	Overall	85.7%	55.1%	23.3%	3.0%	0.8%	33.7%
Water and Soap Available for Hand Washing	Urban	7.1%	41.0%	67.1%	85.6%	93.9%	87.2%
	Rural	27.1%	36.2%	50.5%	68.2%	87.7%	51.1%
	Overall	26.9%	36.3%	52.1%	71.2%	90.9%	57.5%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Dunyapur	97.6%	97.4%	95.1%	96.7%
	Karor Pacca	96.2%	100.0%	99.2%	98.5%
	Lodhran	99.3%	99.3%	96.2%	98.3%
Access to Piped Water	Dunyapur	34.5%	44.0%	53.7%	44.0%
	Karor Pacca	2.8%	1.0%	8.4%	4.1%
	Lodhran	11.7%	6.4%	1.0%	6.4%
Improved Sanitation	Dunyapur	37.5%	93.8%	99.1%	76.4%
	Karor Pacca	14.9%	62.5%	92.5%	56.5%
	Lodhran	21.3%	72.0%	92.8%	61.9%
Open Defecation	Dunyapur	60.7%	6.6%	0.5%	22.8%
	Karor Pacca	84.9%	35.8%	3.1%	41.3%
	Lodhran	78.6%	23.1%	2.0%	34.6%
Water and Soap Available for Hand Washing	Dunyapur	39.2%	55.2%	83.5%	60.6%
	Karor Pacca	22.4%	45.3%	88.2%	54.3%
	Lodhran	34.1%	48.4%	84.4%	58.2%

Indices	District		Tehsils	
	Lodhran	Dunyapur	Karor Pacca	Lodhran
Exposure Index	2.83	2.09	3.39	3.07
Susceptibility Index	0.22	0.22	0.30	0.20
Sanitation Index	3.05	2.31	3.69	3.26

Figure 52 - Improved water in district Lodhran

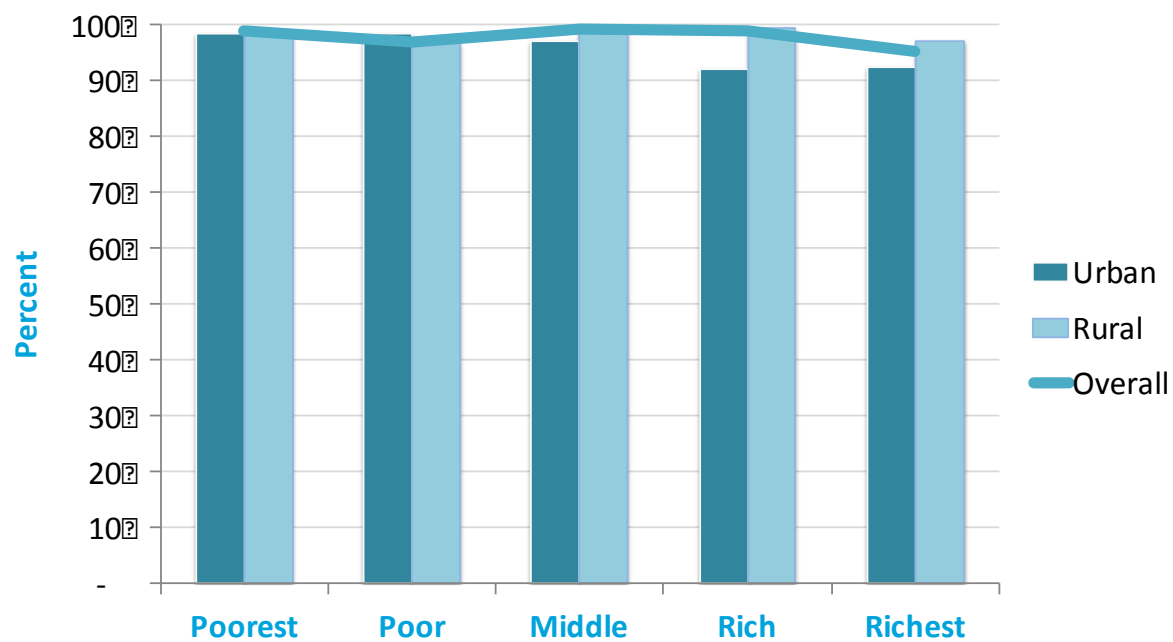
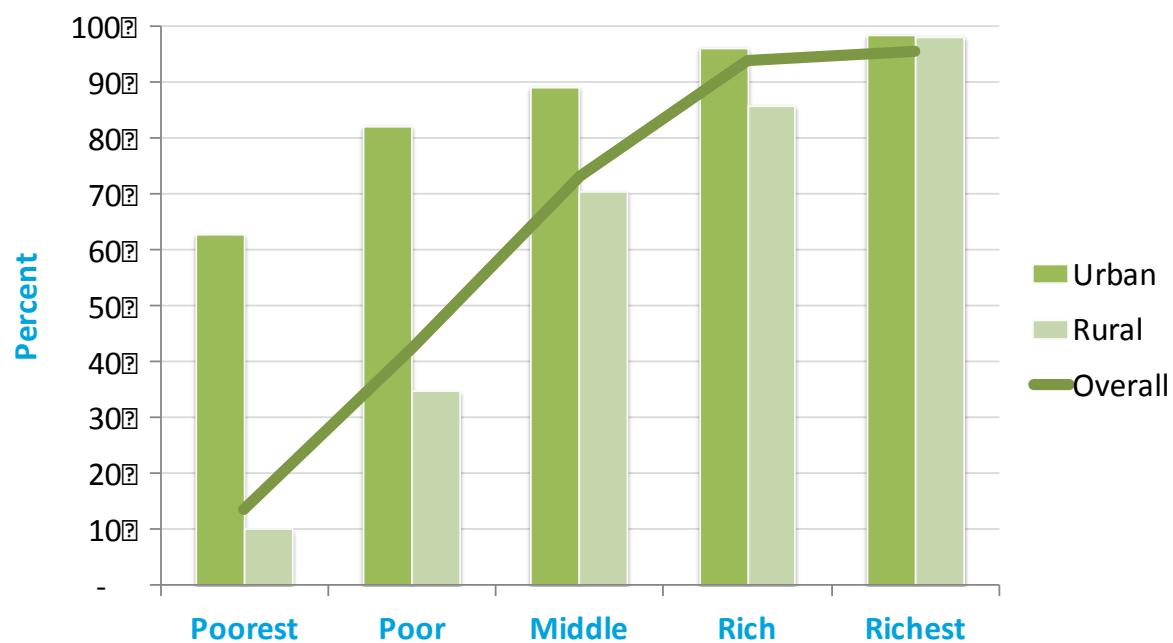


Figure 53 - Improved sanitation in district Lodhran



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	94.6%	92.6%	86.7%	82.8%	75.1%	86.4%
	Rural	98.8%	97.4%	98.6%	98.2%	95.3%	97.7%
	Overall	98.6%	97.6%	98.1%	97.3%	87.4%	95.8%
Access to Piped Water	Urban	10.3%	28.1%	23.8%	27.9%	21.9%	23.5%
	Rural	2.8%	3.2%	8.5%	5.8%	7.2%	5.3%
	Overall	2.9%	4.0%	9.9%	10.0%	14.5%	8.3%
Improved Sanitation	Urban	77.5%	80.3%	72.6%	88.6%	88.1%	81.4%
	Rural	10.5%	52.3%	74.7%	93.3%	95.3%	65.3%
	Overall	15.9%	60.3%	82.4%	91.5%	89.6%	68.0%
Open Defecation	Urban	43.5%	8.4%	0.0%	0.0%	0.0%	1.2%
	Rural	83.6%	33.3%	10.8%	1.4%	0.0%	30.1%
	Overall	82.9%	32.6%	9.8%	1.2%	0.0%	25.3%
Water and Soap Available for Hand Washing	Urban	40.6%	65.8%	79.7%	88.6%	98.0%	90.9%
	Rural	42.5%	62.0%	78.7%	89.1%	96.3%	69.9%
	Overall	42.5%	62.1%	78.8%	89.0%	97.1%	73.3%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Burewala	99.8%	98.3%	85.0%	94.3%
	Mailsi	96.7%	98.0%	95.7%	96.8%
	Vehari	98.1%	97.5%	93.3%	96.3%
Access to Piped Water	Burewala	10.0%	12.1%	9.6%	10.6%
	Mailsi	2.9%	5.7%	15.2%	7.9%
	Vehari	0.8%	2.3%	14.6%	5.9%
Improved Sanitation	Burewala	54.2%	85.9%	82.0%	73.8%
	Mailsi	25.4%	80.0%	99.1%	67.9%
	Vehari	20.2%	70.2%	94.2%	61.1%
Open Defecation	Burewala	42.2%	3.9%	0.0%	15.4%
	Mailsi	74.1%	20.1%	0.9%	31.8%
	Vehari	73.0%	14.0%	0.2%	29.1%
Water and Soap Available for Hand Washing	Burewala	80.2%	93.6%	96.2%	89.7%
	Mailsi	20.8%	48.5%	83.9%	50.2%
	Vehari	61.8%	82.2%	96.3%	79.3%

Indices	District		Tehsils	
	Vehari	Burewala	Mailsi	Vehari
Exposure Index	2.46	2.20	2.61	2.78
Susceptibility Index	0.59	0.22	0.96	0.50
Sanitation Index	3.05	2.42	3.57	3.28

Figure 54 - Improved water in district Vehari

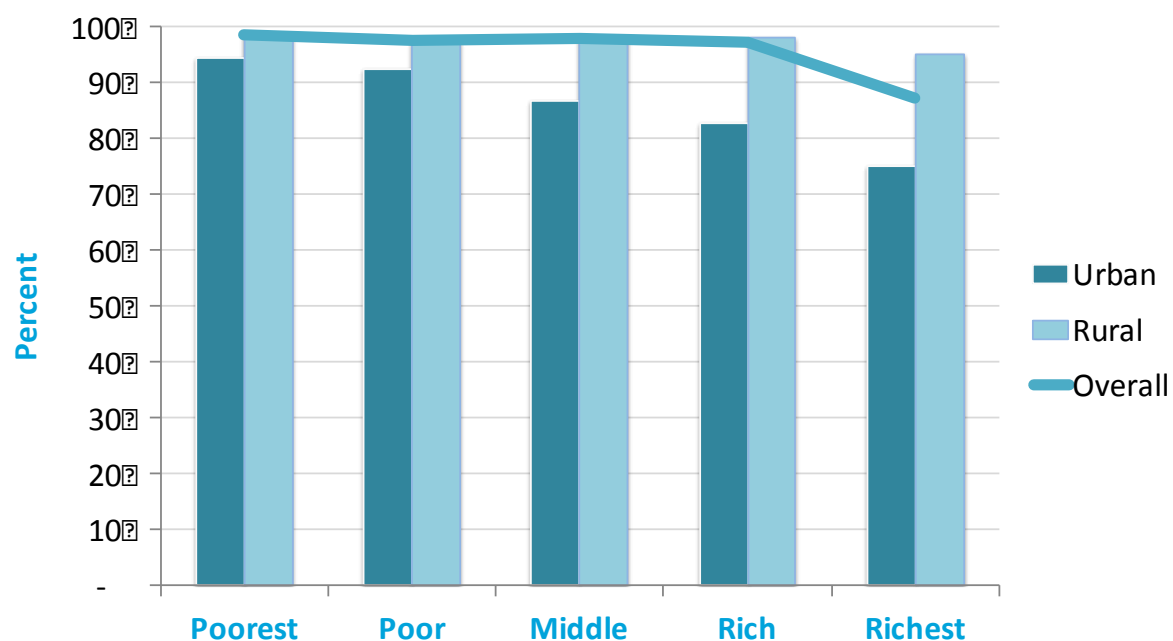
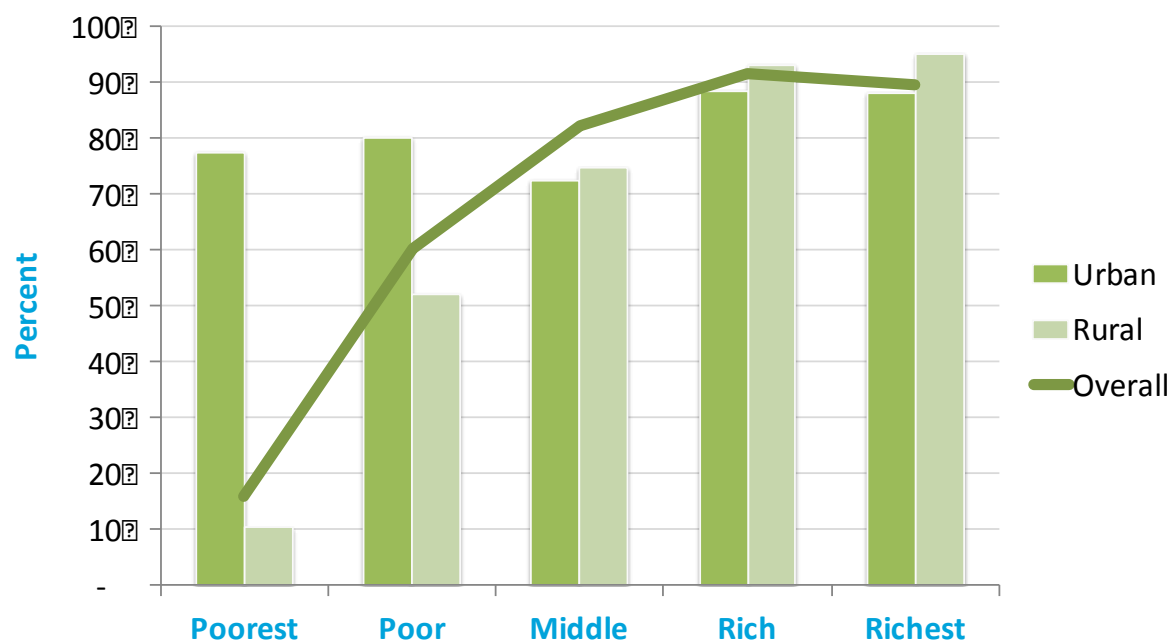


Figure 55 - Improved sanitation in district Vehari



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	91.0%	84.5%	89.9%	88.7%	90.6%	88.9%
	Rural	64.1%	77.4%	87.4%	95.0%	97.4%	84.3%
	Overall	70.3%	89.9%	89.4%	90.3%	92.6%	86.5%
Access to Piped Water	Urban	55.9%	57.6%	58.3%	49.1%	62.2%	56.6%
	Rural	14.6%	27.5%	45.1%	53.3%	45.3%	29.6%
	Overall	15.9%	34.5%	53.2%	50.3%	58.1%	42.4%
Improved Sanitation	Urban	89.7%	92.1%	95.4%	94.2%	98.3%	93.9%
	Rural	38.6%	68.4%	81.9%	91.7%	96.7%	75.5%
	Overall	51.6%	84.2%	92.7%	94.2%	98.2%	84.2%
Open Defecation	Urban	9.5%	0.2%	0.0%	0.0%	0.0%	0.1%
	Rural	40.6%	4.9%	0.2%	0.0%	0.0%	16.4%
	Overall	39.6%	3.8%	0.1%	0.0%	0.0%	8.7%
Water and Soap Available for Hand Washing	Urban	56.8%	93.8%	94.6%	98.4%	98.4%	96.5%
	Rural	77.1%	93.5%	96.7%	98.7%	97.9%	88.6%
	Overall	76.6%	93.6%	95.5%	98.5%	98.2%	92.1%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Gujar Khan Town	75.5%	89.6%	93.5%	86.1%
	Kahuta Town	52.6%	67.8%	89.3%	69.8%
	Kallar Sayedan Town	72.7%	75.8%	90.6%	79.7%
	Kotli Sattian Town	41.1%	60.9%	66.9%	56.2%
	Murree Town	58.8%	74.5%	80.6%	71.2%
	Taxila Town	90.7%	93.3%	92.9%	92.3%
	Potohar Town	89.1%	95.8%	99.4%	94.7%
	Rawal Town	86.5%	87.6%	89.9%	88.0%
Access to Piped Water	Gujar Khan Town	2.1%	11.4%	11.6%	8.4%
	Kahuta Town	8.1%	12.3%	19.8%	13.4%
	Kallar Sayedan Town	10.6%	9.9%	15.7%	12.0%
	Kotli Sattian Town	3.4%	6.5%	12.3%	7.4%
	Murree Town	11.7%	21.7%	37.4%	23.5%
	Taxila Town	56.7%	51.8%	49.9%	52.8%
	Potohar Town	38.6%	49.5%	56.5%	48.2%
	Rawal Town	65.5%	53.4%	67.3%	62.1%
Improved Sanitation	Gujar Khan Town	49.5%	96.4%	96.8%	80.6%
	Kahuta Town	38.9%	76.0%	90.1%	68.1%
	Kallar Sayedan Town	37.1%	84.4%	91.5%	70.7%
	Kotli Sattian Town	40.2%	59.0%	81.2%	60.0%
	Murree Town	67.4%	81.5%	79.8%	76.1%
	Taxila Town	84.2%	95.0%	98.0%	92.4%
	Potohar Town	47.6%	92.7%	97.3%	78.9%
	Rawal Town	88.7%	92.8%	98.1%	93.1%
Open Defecation	Gujar Khan Town	49.1%	3.2%	0.4%	17.6%
	Kahuta Town	53.9%	8.1%	0.0%	20.7%
	Kallar Sayedan Town	54.7%	5.8%	0.0%	20.2%
	Kotli Sattian Town	46.5%	23.0%	1.2%	23.6%
	Murree Town	27.1%	7.2%	0.0%	11.6%
	Taxila Town	6.6%	0.3%	0.0%	2.3%
	Potohar Town	39.0%	0.9%	0.0%	13.3%
	Rawal Town	0.0%	0.0%	0.0%	0.0%
Water and Soap Available for Hand Washing	Gujar Khan Town	79.6%	89.0%	96.5%	88.2%
	Kahuta Town	74.0%	95.8%	98.9%	89.4%
	Kallar Sayedan Town	76.8%	95.1%	96.7%	89.4%
	Kotli Sattian Town	80.0%	76.7%	87.0%	81.1%
	Murree Town	56.6%	69.2%	91.2%	72.1%
	Taxila Town	85.5%	98.1%	99.2%	94.3%
	Potohar Town	87.9%	99.1%	97.6%	94.9%
	Rawal Town	92.9%	97.5%	99.2%	96.5%

Indices	District	Tehsils							
	Rawalpindi	Gujar Khan Town	Kahuta Town	Kallar Sayedan Town	Kotli Sattian Town	Murree Town	Taxila Town	Potohar Town	Rawal Town
Exposure Index	1.52	1.33	1.51	NA	24.63	2.57	1.38	NA	NA
Susceptibility Index	0.39	0.60	0.27	0.11	0.51	0.67	0.42	0.35	0.34
Sanitation Index	1.90	1.93	1.78	NA	25.14	3.24	1.80	NA	NA

Figure 56 - Improved water in district Rawalpindi

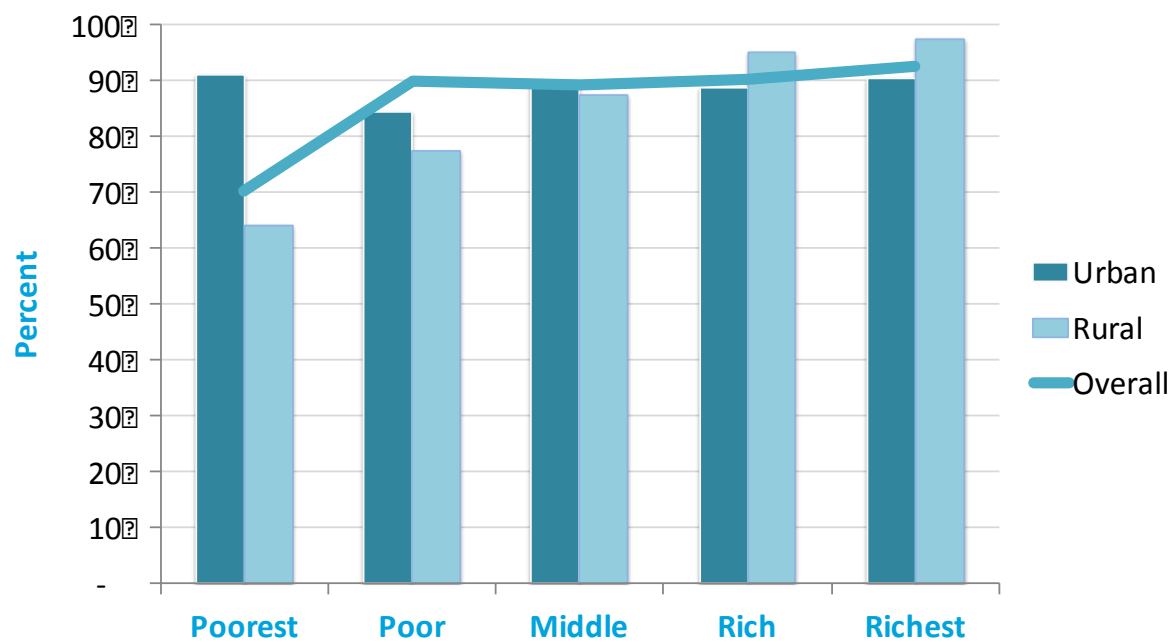
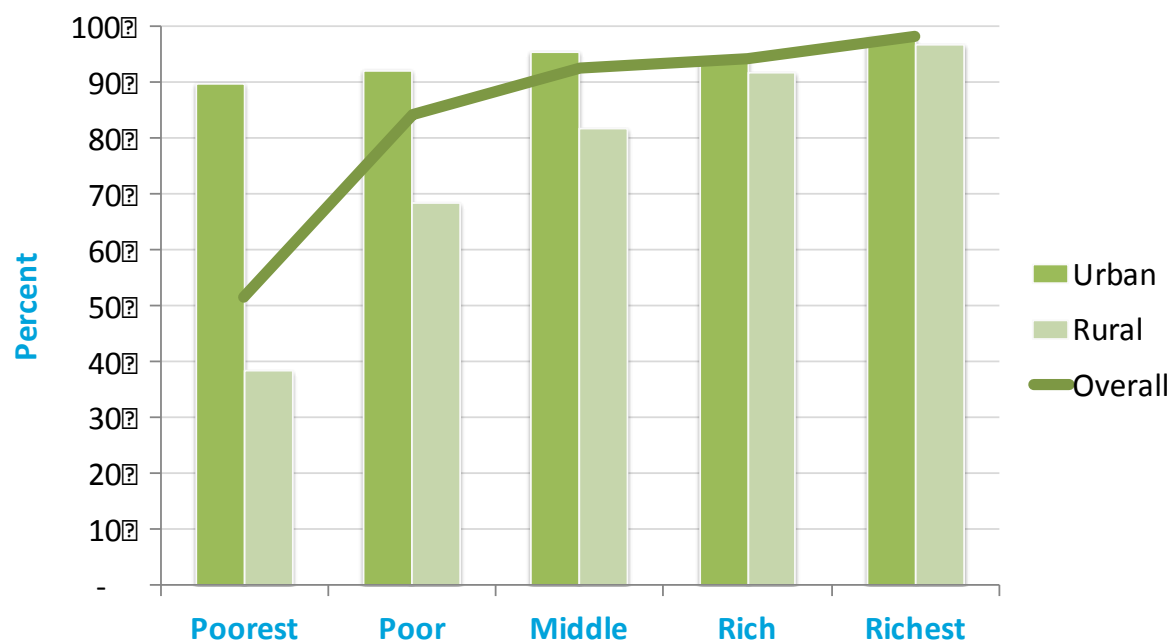


Figure 57 - Improved sanitation in district Rawalpindi



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	98.4%	98.4%	95.1%	97.7%	94.5%	96.8%
	Rural	83.0%	85.5%	89.1%	93.6%	97.3%	89.7%
	Overall	83.3%	87.3%	92.2%	95.8%	97.1%	91.2%
Access to Piped Water	Urban	25.1%	21.9%	34.3%	43.5%	43.8%	41.9%
	Rural	23.6%	32.6%	23.9%	20.7%	22.3%	25.2%
	Overall	23.6%	32.2%	25.0%	27.5%	34.8%	28.6%
Improved Sanitation	Urban	85.2%	95.0%	97.2%	98.4%	98.9%	95.0%
	Rural	32.3%	68.4%	83.0%	92.1%	93.8%	73.9%
	Overall	39.9%	71.4%	88.0%	95.1%	96.7%	78.2%
Open Defecation	Urban	48.1%	9.3%	1.9%	0.0%	0.0%	0.9%
	Rural	54.1%	21.6%	3.0%	0.7%	0.0%	19.5%
	Overall	54.0%	21.2%	2.9%	0.5%	0.0%	15.7%
Water and Soap Available for Hand Washing	Urban	20.0%	55.1%	78.5%	87.1%	98.4%	90.6%
	Rural	24.7%	50.1%	67.7%	84.3%	94.6%	57.4%
	Overall	24.7%	50.2%	68.9%	85.1%	96.8%	63.9%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Attock	83.3%	94.8%	96.3%	91.4%
	Fateh Jang	76.5%	86.0%	95.0%	85.8%
	Hazro	84.4%	92.0%	99.9%	92.1%
	Hassanabdal	92.8%	97.4%	96.7%	95.6%
	Jand	86.4%	94.0%	98.3%	92.9%
	Pindi Gheb	92.9%	90.8%	91.3%	91.7%
Access to Piped Water	Attock	36.4%	34.6%	45.5%	38.8%
	Fateh Jang	25.5%	28.3%	20.7%	24.8%
	Hazro	14.5%	7.7%	9.8%	10.7%
	Hassanabdal	37.6%	39.4%	72.1%	49.7%
	Jand	13.1%	24.4%	20.4%	19.3%
	Pindi Gheb	33.8%	43.8%	35.6%	37.7%
Improved Sanitation	Attock	57.3%	91.0%	96.1%	81.3%
	Fateh Jang	26.7%	74.1%	90.8%	63.6%
	Hazro	70.5%	91.9%	96.1%	86.1%
	Hassanabdal	64.4%	89.6%	97.9%	83.8%
	Jand	50.9%	94.9%	98.3%	81.3%
	Pindi Gheb	41.0%	87.6%	97.7%	75.2%
Open Defecation	Attock	33.8%	2.1%	0.0%	12.0%
	Fateh Jang	69.8%	15.9%	0.8%	29.1%
	Hazro	20.8%	0.0%	0.0%	6.9%
	Hassanabdal	23.9%	3.3%	0.0%	9.1%
	Jand	44.9%	3.4%	0.0%	16.1%
	Pindi Gheb	52.0%	7.1%	0.0%	19.9%
Water and Soap Available for Hand Washing	Attock	30.2%	81.7%	94.4%	67.6%
	Fateh Jang	39.5%	62.0%	92.3%	64.2%
	Hazro	30.9%	64.5%	95.2%	63.4%
	Hassanabdal	53.9%	66.7%	94.3%	71.8%
	Jand	24.3%	58.9%	94.0%	56.9%
	Pindi Gheb	26.4%	69.0%	93.8%	61.6%

Indices	District		Tehsils				
	Attock	Attock	Fateh Jang	Hazro	Hassanabdal	Jand	Pindi Gheb
Exposure Index	1.15	0.96	1.61	NA	1.16	1.22	1.07
Susceptibility Index	0.45	0.35	0.68	0.21	0.67	0.57	0.17
Sanitation Index	1.61	1.31	2.29	NA	1.83	1.78	1.24

Figure 58 - Improved water in Attock

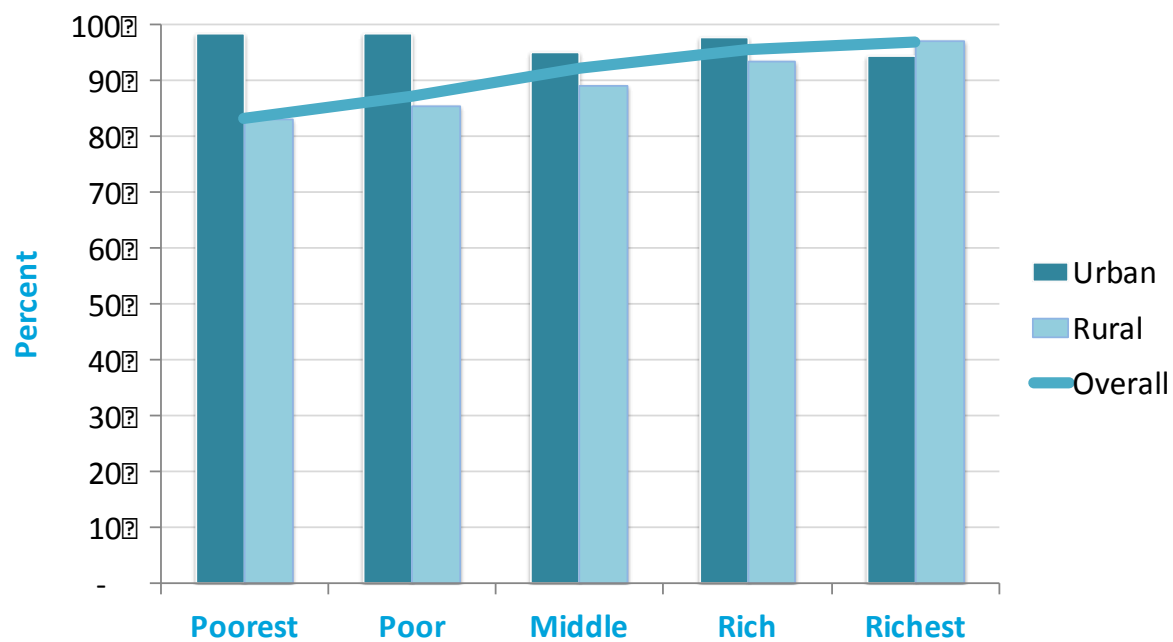
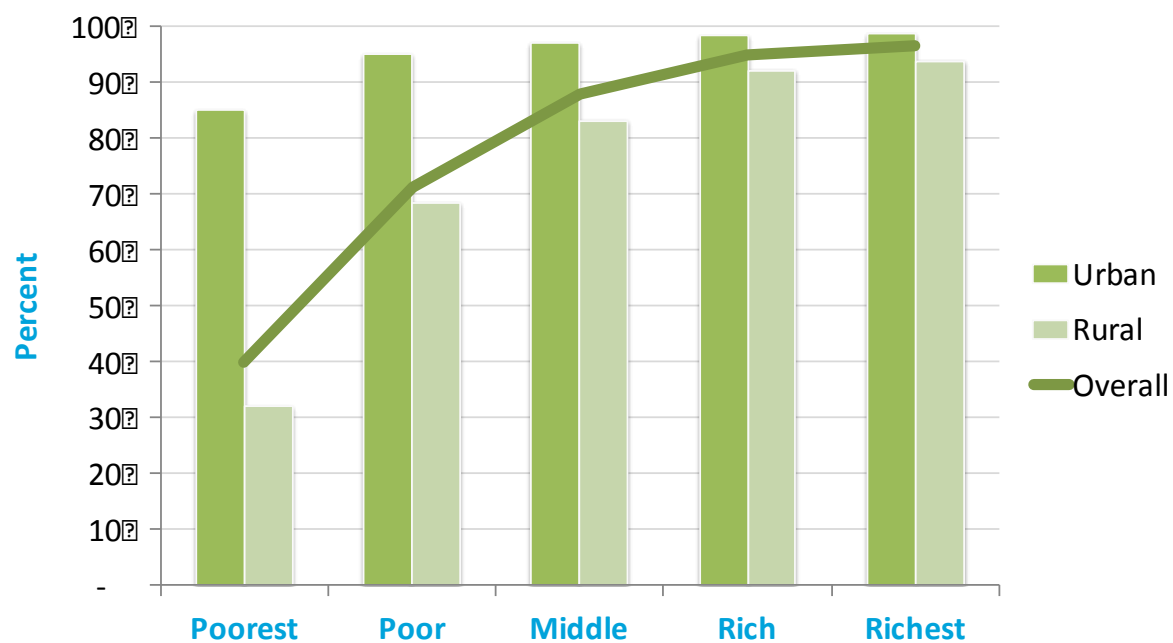


Figure 59 - Improved sanitation in district Attock



Chakwal

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	87.2%	92.7%	89.0%	87.9%	87.4%	88.8%
	Rural	89.6%	87.4%	90.5%	94.8%	93.7%	91.2%
	Overall	89.6%	88.4%	90.8%	92.9%	93.1%	91.0%
Access to Piped Water	Urban	100.0%	41.6%	43.8%	24.4%	13.2%	17.7%
	Rural	23.2%	27.6%	31.5%	28.4%	27.2%	27.6%
	Overall	23.6%	27.7%	31.9%	28.1%	21.4%	26.5%
Improved Sanitation	Urban	92.9%	100.0%	100.0%	100.0%	100.0%	98.6%
	Rural	31.6%	72.8%	87.8%	96.0%	98.6%	77.4%
	Overall	35.1%	76.9%	90.4%	96.0%	100.0%	79.7%
Open Defecation	Urban	63.9%	0.0%	3.0%	0.0%	0.0%	0.8%
	Rural	64.5%	20.9%	9.2%	2.8%	0.0%	21.6%
	Overall	64.5%	20.8%	9.1%	2.6%	0.0%	19.4%
Water and Soap Available for Hand Washing	Urban	49.8%	63.3%	71.8%	83.1%	96.1%	92.5%
	Rural	28.6%	53.2%	70.1%	79.4%	94.8%	61.3%
	Overall	28.7%	53.3%	70.1%	79.6%	95.3%	64.0%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Chakwal	81.4%	89.0%	89.0%	86.4%
	Choa Saiden Shah	73.2%	88.9%	94.6%	85.5%
	Kalar Kahar	79.4%	83.7%	87.1%	83.4%
	Talagang	98.9%	99.8%	99.7%	99.4%
Access to Piped Water	Chakwal	28.7%	26.6%	22.9%	26.0%
	Choa Saiden Shah	34.4%	34.3%	32.2%	33.6%
	Kalar Kahar	16.1%	45.4%	36.5%	32.7%
	Talagang	22.2%	33.1%	13.9%	23.0%
Improved Sanitation	Chakwal	52.9%	87.3%	98.2%	79.3%
	Choa Saiden Shah	44.6%	91.8%	99.0%	78.2%
	Kalar Kahar	54.6%	97.4%	100.0%	83.7%
	Talagang	47.3%	90.6%	100.0%	79.0%
Open Defecation	Chakwal	46.7%	11.2%	1.0%	19.6%
	Choa Saiden Shah	56.4%	7.3%	1.0%	21.6%
	Kalar Kahar	43.7%	2.2%	0.0%	15.4%
	Talagang	51.8%	8.3%	0.0%	20.1%
Water and Soap Available for Hand Washing	Chakwal	46.0%	66.8%	89.0%	66.7%
	Choa Saiden Shah	58.6%	78.9%	95.9%	76.1%
	Kalar Kahar	40.7%	80.7%	96.9%	72.6%
	Talagang	26.9%	62.5%	82.2%	55.3%

Indices	District		Tehsils		
	Chakwal	Chakwal	Choa Saiden Shah	Kalar Kahar	Talagang
Exposure Index	1.03	35.06	1.08	NA	1.05
Susceptibility Index	0.36	0.45	0.13	0.10	0.25
Sanitation Index	1.39	35.51	1.21	NA	1.30

Figure 60 - Improved water in district Chakwal

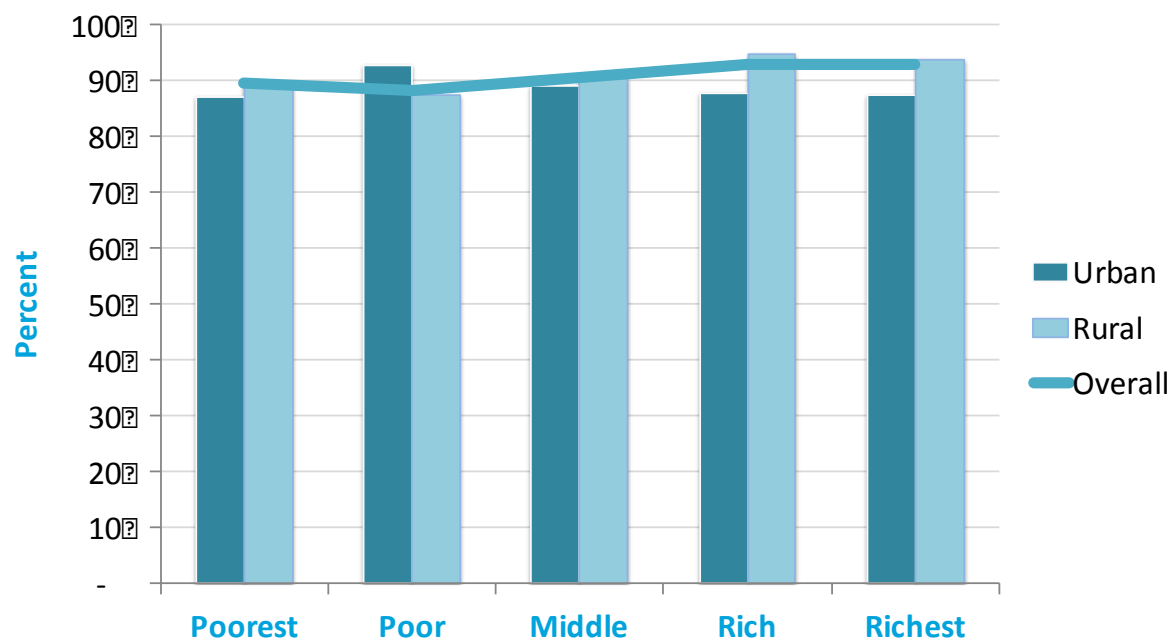
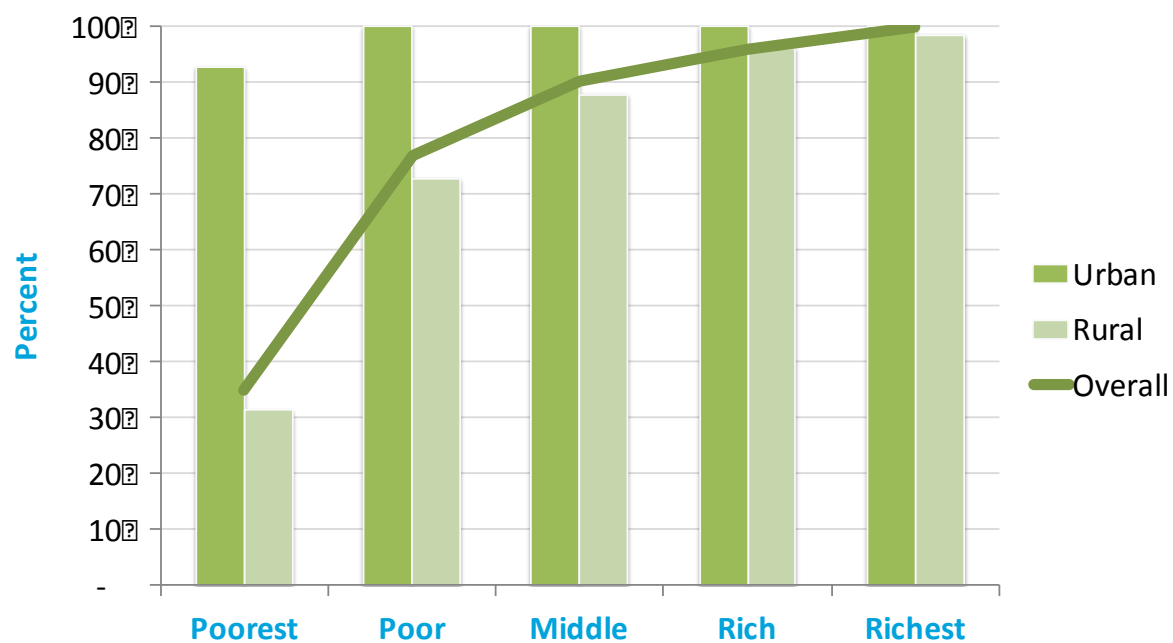


Figure 61 - Improved sanitation in district Chakwal



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	94.8%	93.6%	98.9%	94.8%	92.8%	94.9%
	Rural	87.4%	93.6%	97.2%	99.0%	96.7%	94.8%
	Overall	88.4%	95.4%	97.6%	97.6%	95.2%	94.8%
Access to Piped Water	Urban	76.7%	33.0%	36.6%	33.7%	26.5%	31.0%
	Rural	23.0%	33.1%	26.5%	14.3%	11.8%	23.7%
	Overall	24.4%	33.1%	27.7%	21.0%	20.9%	25.4%
Improved Sanitation	Urban	89.8%	98.7%	100.0%	97.9%	100.0%	97.3%
	Rural	24.7%	72.1%	92.2%	96.8%	100.0%	77.2%
	Overall	30.9%	84.3%	95.7%	98.9%	99.5%	81.9%
Open Defecation	Urban	64.9%	4.6%	0.0%	0.0%	0.0%	1.6%
	Rural	67.2%	15.2%	3.5%	0.8%	0.0%	21.8%
	Overall	67.2%	14.6%	3.1%	0.5%	0.0%	17.1%
Water and Soap Available for Hand Washing	Urban	43.7%	80.9%	90.1%	93.7%	99.5%	94.4%
	Rural	62.7%	85.0%	87.8%	93.3%	98.2%	82.0%
	Overall	62.2%	84.8%	88.1%	93.5%	99.0%	84.8%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Dina	95.4%	97.9%	94.8%	96.0%
	Jhelum	99.2%	97.9%	95.8%	97.6%
	Pind Dadan Khan	87.7%	96.2%	96.3%	93.3%
	Sohawa	79.2%	92.6%	95.5%	89.0%
Access to Piped Water	Dina	35.6%	22.4%	14.6%	24.2%
	Jhelum	5.3%	8.3%	11.7%	8.4%
	Pind Dadan Khan	40.4%	58.6%	70.2%	56.4%
	Sohawa	10.2%	27.7%	21.3%	19.8%
Improved Sanitation	Dina	68.8%	98.3%	99.0%	88.6%
	Jhelum	65.0%	97.4%	99.2%	87.1%
	Pind Dadan Khan	33.4%	88.8%	100.0%	73.7%
	Sohawa	38.8%	86.3%	99.4%	74.6%
Open Defecation	Dina	31.5%	0.8%	0.0%	10.8%
	Jhelum	34.1%	2.2%	0.0%	12.1%
	Pind Dadan Khan	64.4%	8.6%	0.0%	24.4%
	Sohawa	61.9%	13.0%	0.0%	25.0%
Water and Soap Available for Hand Washing	Dina	73.6%	87.7%	95.2%	85.2%
	Jhelum	79.7%	94.7%	98.9%	91.1%
	Pind Dadan Khan	60.8%	80.2%	91.5%	76.5%
	Sohawa	61.2%	93.7%	95.5%	83.0%

Indices	District		Tehsils		
	Jhelum	Dina	Jhelum	Pind Dadan Khan	Sohawa
Exposure Index	0.98	NA	0.99	NA	1.01
Susceptibility Index	0.52	0.51	0.61	NA	0.31
Sanitation Index	1.50	NA	1.60	NA	1.32

Figure 62 - Improved water in district Jhelum

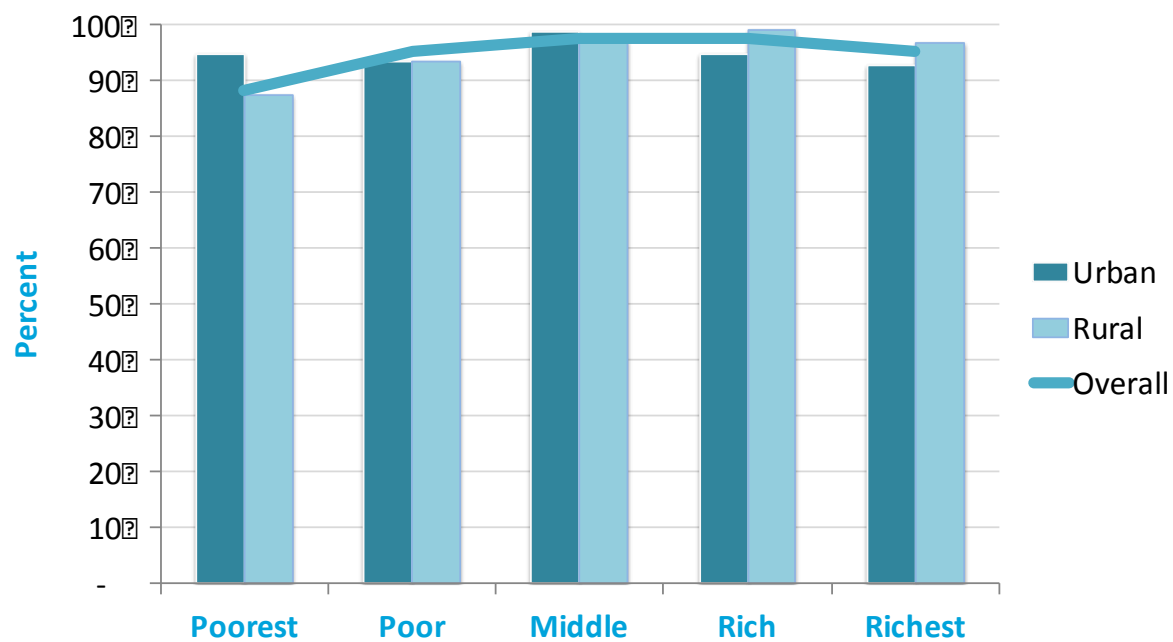
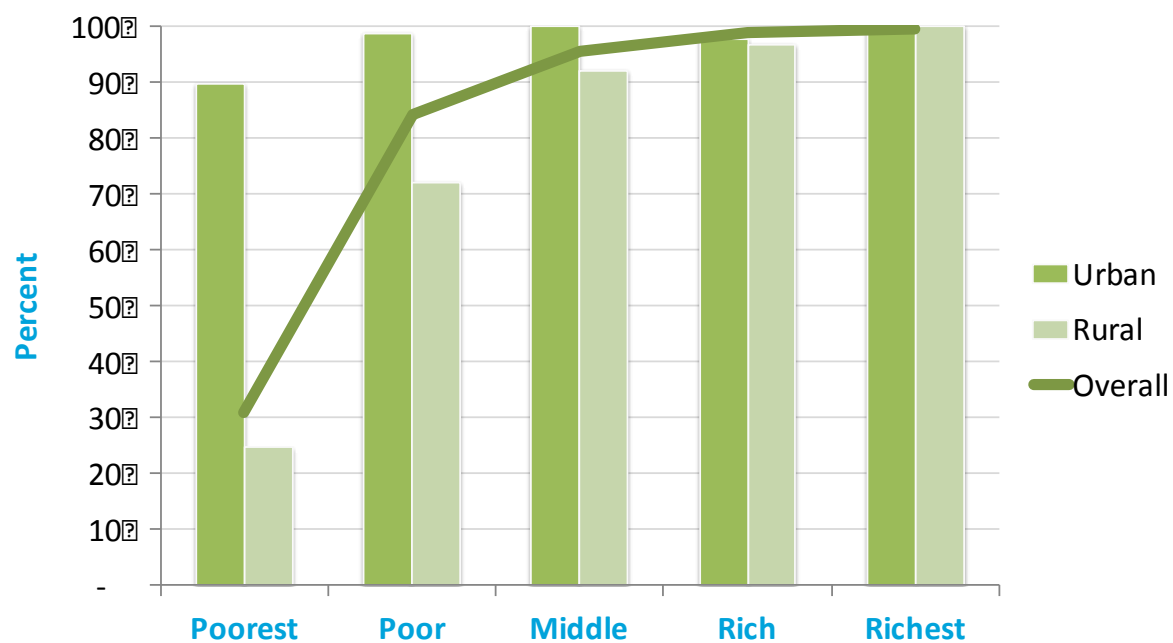


Figure 63 - Improved sanitation in district Jhelum



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	100.0%	97.6%	95.5%	91.0%	83.5%	93.5%
	Rural	96.0%	98.1%	97.6%	95.9%	97.9%	97.1%
	Overall	96.7%	98.0%	97.3%	96.6%	93.9%	96.5%
Access to Piped Water	Urban	38.1%	20.9%	18.1%	35.6%	17.2%	20.5%
	Rural	1.8%	3.3%	1.1%	3.2%	2.2%	2.3%
	Overall	2.3%	3.7%	1.7%	7.5%	12.0%	5.4%
Improved Sanitation	Urban	88.1%	99.4%	99.7%	100.0%	100.0%	97.4%
	Rural	12.1%	43.3%	77.1%	90.1%	97.1%	64.0%
	Overall	13.8%	52.4%	89.2%	93.3%	99.8%	69.7%
Open Defecation	Urban	96.4%	17.0%	7.3%	0.0%	0.0%	2.3%
	Rural	84.5%	39.6%	5.3%	0.3%	0.0%	30.8%
	Overall	84.6%	39.1%	5.3%	0.3%	0.0%	25.9%
Water and Soap Available for Hand Washing	Urban	52.8%	86.3%	96.4%	98.1%	99.2%	97.9%
	Rural	73.1%	84.3%	89.6%	95.0%	99.2%	86.4%
	Overall	72.9%	84.3%	89.8%	95.4%	99.2%	88.4%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Chichawatni	98.0%	100.0%	98.6%	98.8%
	Sahiwal	96.0%	94.0%	94.3%	94.8%
Access to Piped Water	Chichawatni	3.1%	2.9%	13.3%	6.4%
	Sahiwal	3.1%	1.9%	9.1%	4.7%
Improved Sanitation	Chichawatni	27.3%	80.3%	91.0%	66.0%
	Sahiwal	27.1%	91.4%	100.0%	72.4%
Open Defecation	Chichawatni	68.5%	6.5%	0.4%	25.2%
	Sahiwal	71.7%	7.4%	0.0%	26.4%
Water and Soap Available for Hand Washing	Chichawatni	73.4%	85.6%	94.8%	84.5%
	Sahiwal	81.6%	92.0%	99.9%	91.2%

Indices	District	Tehsils	
	Sahiwal	Chichawatni	Sahiwal
Exposure Index	2.50	2.52	2.62
Susceptibility Index	0.74	0.78	0.63
Sanitation Index	3.24	3.30	3.25

Figure 64 - Improved water in district Sahiwal

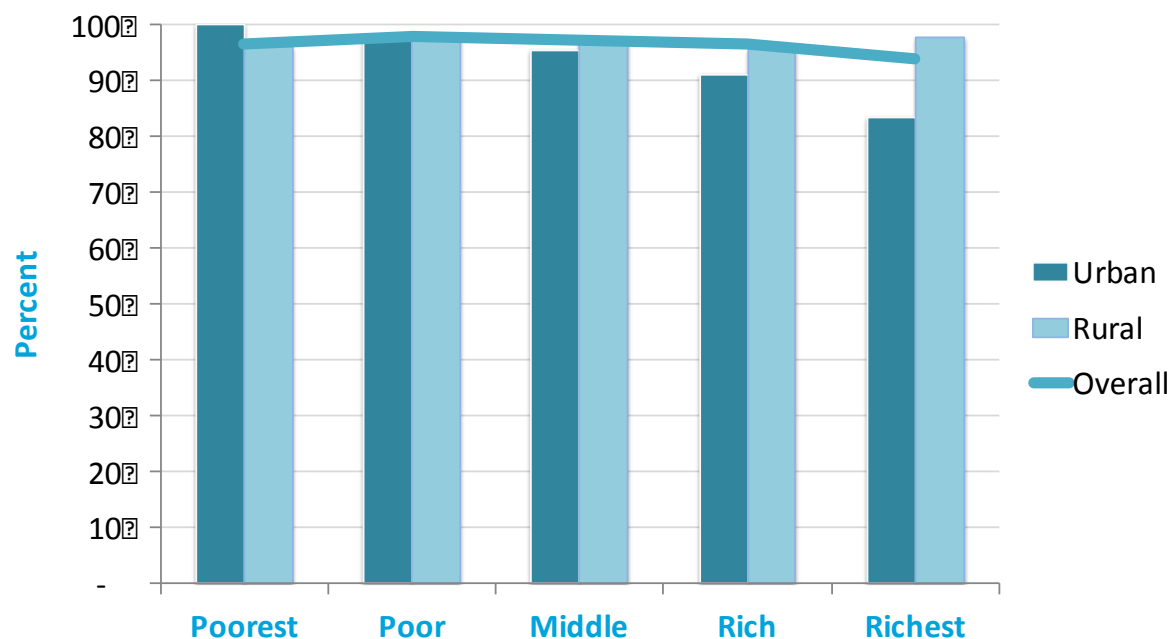
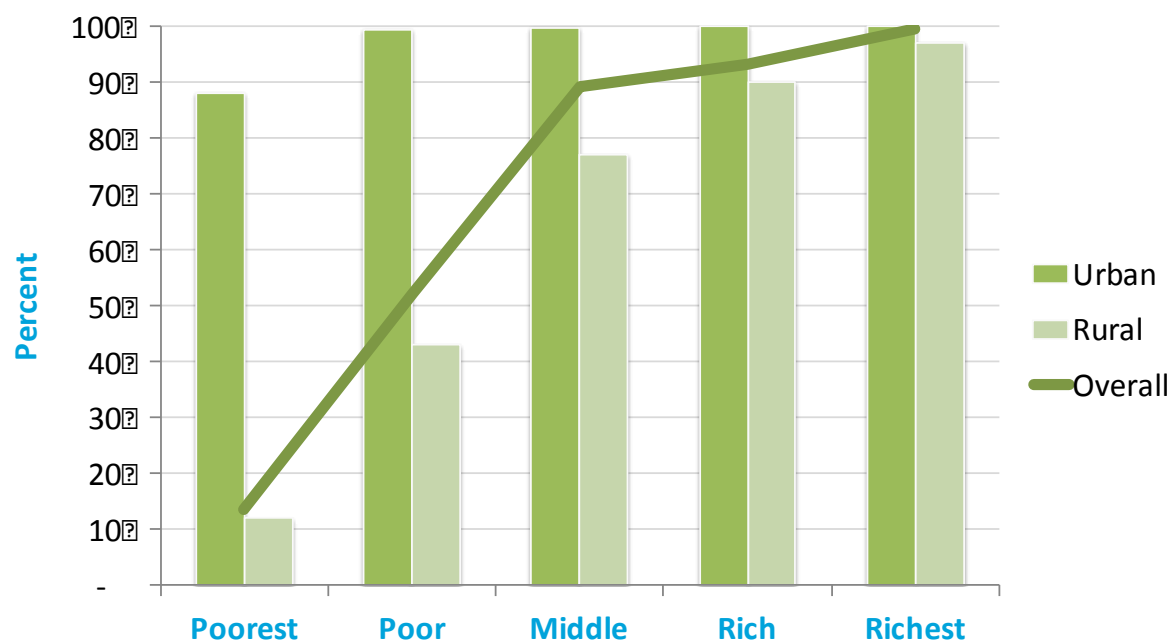


Figure 65 - Improved sanitation in district Sahiwal



Okara

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	99.7%	95.7%	92.0%	84.6%	82.7%	90.9%
	Rural	99.1%	96.9%	97.5%	99.7%	98.8%	98.4%
	Overall	99.1%	96.8%	98.4%	99.2%	92.1%	97.1%
Access to Piped Water	Urban	0.0%	0.0%	20.2%	21.9%	25.0%	23.9%
	Rural	0.5%	1.0%	3.1%	3.9%	2.6%	2.1%
	Overall	0.5%	1.0%	3.9%	7.4%	16.2%	5.8%
Improved Sanitation	Urban	82.3%	93.9%	92.7%	93.8%	96.8%	91.9%
	Rural	1.0%	19.9%	42.5%	84.7%	93.6%	48.4%
	Overall	1.8%	24.6%	69.1%	87.9%	95.4%	55.8%
Open Defecation	Urban	29.7%	66.2%	7.1%	0.0%	0.0%	0.6%
	Rural	97.5%	72.1%	24.2%	3.2%	0.0%	47.0%
	Overall	97.4%	72.1%	23.5%	2.6%	0.0%	39.1%
Water and Soap Available for Hand Washing	Urban	73.6%	48.4%	95.2%	95.7%	98.8%	97.5%
	Rural	67.9%	78.3%	91.9%	95.6%	98.6%	83.5%
	Overall	67.9%	78.2%	92.0%	95.6%	98.8%	85.7%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Depalpur	95.7%	99.1%	98.9%	97.9%
	Okara	98.7%	98.2%	86.7%	94.6%
	Renala Khurd	100.0%	99.6%	98.5%	99.4%
Access to Piped Water	Depalpur	1.8%	4.1%	12.3%	6.0%
	Okara	0.4%	1.7%	18.8%	6.9%
	Renala Khurd	0.0%	2.3%	8.8%	3.7%
Improved Sanitation	Depalpur	14.6%	76.2%	94.0%	61.1%
	Okara	6.5%	71.9%	95.8%	57.6%
	Renala Khurd	1.0%	42.5%	86.7%	43.2%
Open Defecation	Depalpur	86.3%	18.8%	0.3%	35.1%
	Okara	90.7%	20.4%	0.0%	37.0%
	Renala Khurd	98.2%	49.3%	0.6%	49.5%
Water and Soap Available for Hand Washing	Depalpur	63.9%	89.5%	98.3%	82.9%
	Okara	68.1%	93.5%	97.5%	84.9%
	Renala Khurd	84.9%	92.7%	98.2%	91.9%

Indices	District		Tehsils	
	Okara	Depalpur	Okara	Renala Khurd
Exposure Index	3.29	9.64	4.06	3.95
Susceptibility Index	0.43	0.35	0.63	0.25
Sanitation Index	3.72	9.99	4.69	4.19

Figure 66 - Improved water in district Okara

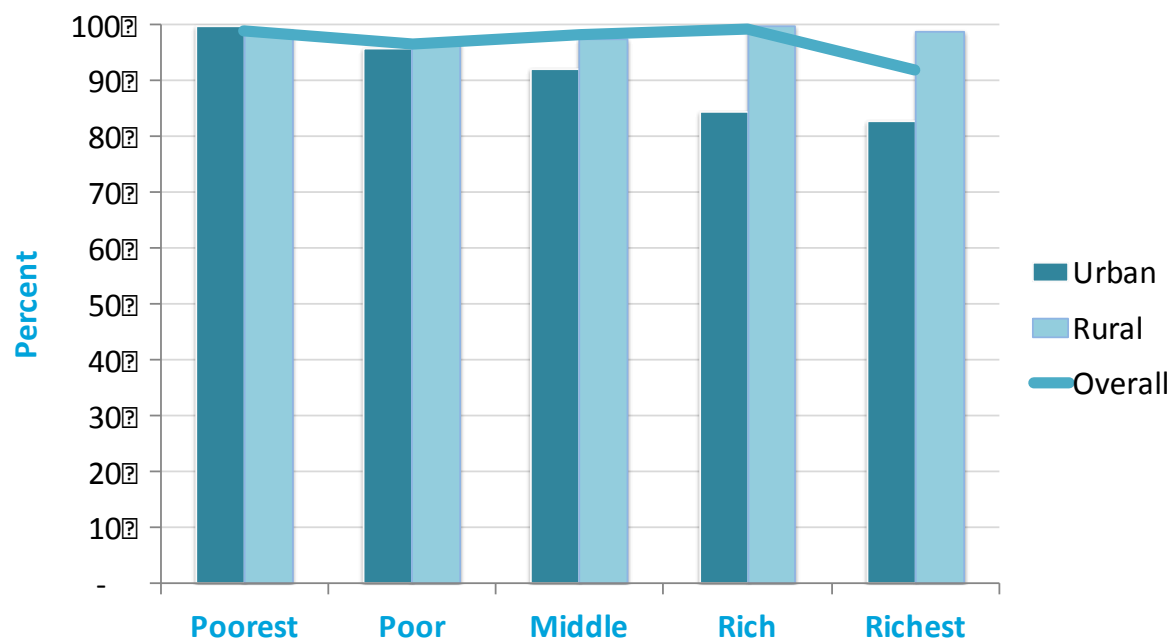
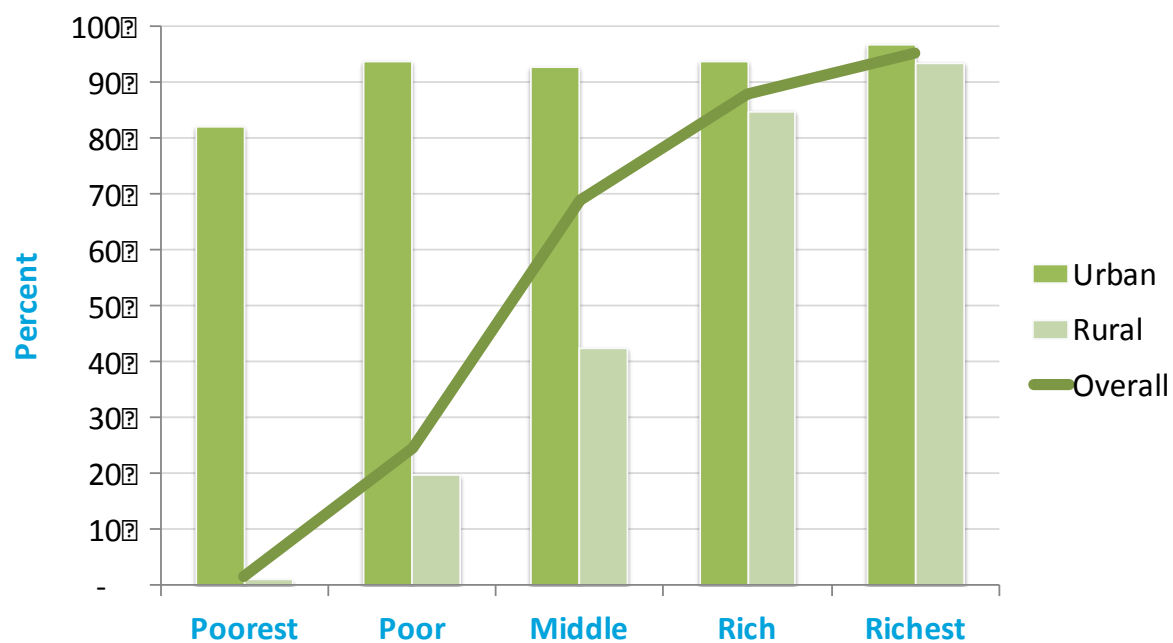


Figure 67 - Improved sanitation in district Okara



Pak Pattan

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	97.9%	96.7%	92.7%	96.4%	87.5%	94.2%
	Rural	99.3%	98.4%	96.6%	97.3%	97.2%	97.8%
	Overall	99.4%	97.6%	96.4%	98.9%	94.0%	97.3%
Access to Piped Water	Urban	.%	36.9%	47.7%	41.3%	31.6%	35.2%
	Rural	0.5%	1.7%	5.2%	4.5%	5.5%	3.2%
	Overall	0.5%	2.7%	7.4%	10.7%	17.7%	7.8%
Improved Sanitation	Urban	89.9%	99.4%	100.0%	99.5%	100.0%	97.7%
	Rural	8.5%	23.8%	60.1%	88.1%	89.9%	54.1%
	Overall	8.8%	31.4%	74.5%	91.0%	95.8%	60.4%
Open Defecation	Urban	.%	11.7%	4.4%	0.0%	0.0%	0.7%
	Rural	90.2%	68.9%	21.4%	3.4%	0.0%	42.1%
	Overall	90.2%	67.4%	20.5%	2.8%	0.0%	36.2%
Water and Soap Available for Hand Washing	Urban	.%	96.5%	90.7%	95.1%	98.2%	96.8%
	Rural	56.4%	69.8%	84.6%	93.7%	98.9%	77.4%
	Overall	56.4%	70.4%	85.0%	93.9%	98.6%	80.2%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Arifwala	97.4%	94.3%	92.7%	94.8%
	Pakpattan	99.2%	99.8%	99.3%	99.4%
Access to Piped Water	Arifwala	1.5%	11.6%	24.9%	12.6%
	Pakpattan	1.6%	2.6%	6.3%	3.5%
Improved Sanitation	Arifwala	18.3%	78.0%	87.6%	61.0%
	Pakpattan	13.5%	67.4%	99.8%	59.8%
Open Defecation	Arifwala	80.4%	17.7%	0.3%	33.0%
	Pakpattan	86.8%	29.8%	0.2%	39.1%
Water and Soap Available for Hand Washing	Arifwala	70.4%	89.8%	96.7%	85.2%
	Pakpattan	56.1%	77.7%	96.7%	75.8%

Indices	District		Tehsils	
	Pakpattan	Arifwala	Pakpattan	
Exposure Index	2.91	2.84	44.84	
Susceptibility Index	0.62	0.58	0.66	
Sanitation Index	3.52	3.42	45.49	

Figure 68 - Improved water in district Pak Pattan

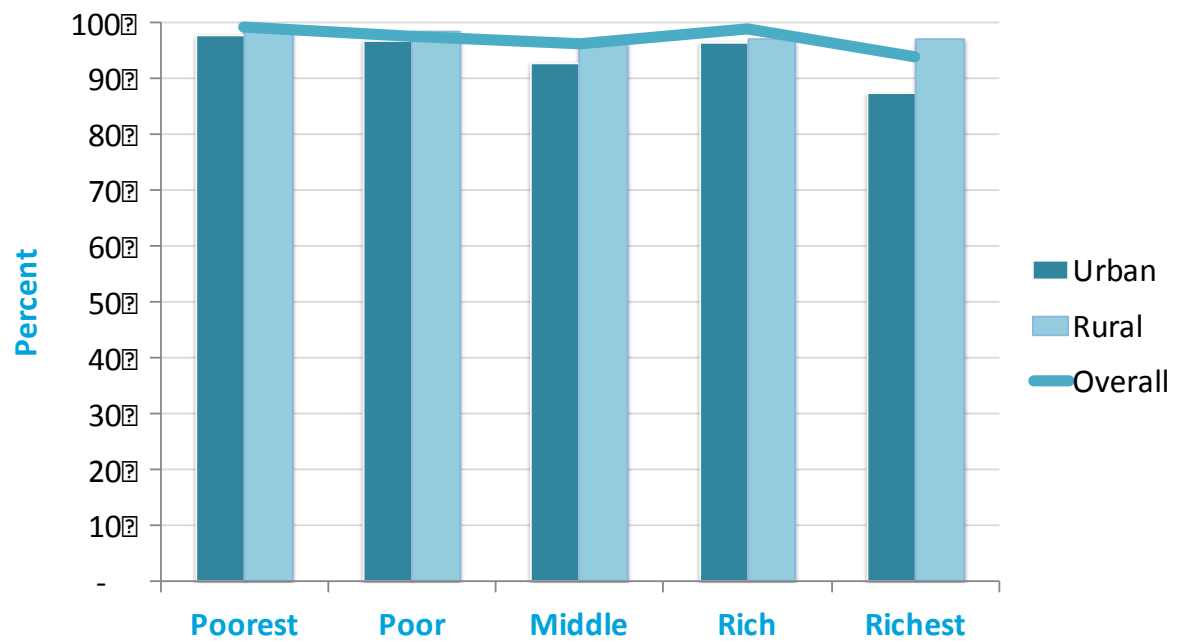
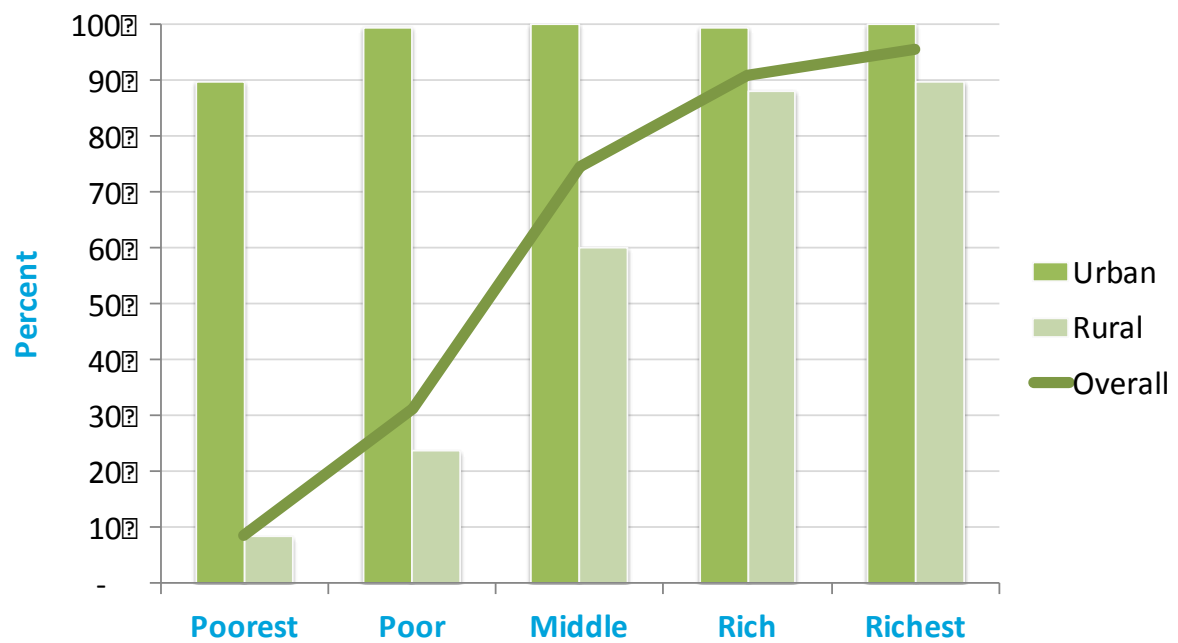


Figure 69 - Improved sanitation in district Pak Pattan



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	97.7%	93.7%	92.0%	81.5%	71.0%	87.2%
	Rural	99.7%	99.4%	97.8%	97.5%	97.9%	98.4%
	Overall	99.7%	98.0%	98.4%	96.6%	84.9%	95.5%
Access to Piped Water	Urban	4.9%	2.7%	9.9%	8.6%	19.5%	14.5%
	Rural	2.2%	5.3%	6.5%	10.5%	10.8%	6.1%
	Overall	2.3%	5.1%	7.0%	9.9%	17.3%	8.3%
Improved Sanitation	Urban	78.6%	98.8%	99.1%	99.6%	99.8%	95.2%
	Rural	11.4%	44.6%	80.3%	97.0%	100.0%	66.7%
	Overall	16.3%	62.3%	92.8%	99.4%	99.6%	74.1%
Open Defecation	Urban	69.2%	20.0%	2.1%	0.1%	0.0%	3.5%
	Rural	83.6%	37.6%	6.8%	0.0%	0.0%	32.7%
	Overall	83.1%	36.3%	6.1%	0.0%	0.0%	25.1%
Water and Soap Available for Hand Washing	Urban	64.6%	71.8%	88.1%	92.0%	96.4%	91.6%
	Rural	60.6%	75.0%	89.6%	93.7%	97.7%	79.1%
	Overall	60.8%	74.8%	89.4%	93.2%	96.7%	82.4%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Bhalwal	99.8%	98.5%	89.1%	95.8%
	Kot Momin	100.0%	99.9%	99.4%	99.8%
	Sahiwal	100.0%	100.0%	99.6%	99.9%
	Sargodha	99.6%	97.6%	82.5%	93.3%
	Shahpur	100.0%	100.0%	98.8%	99.6%
	Sillanwali	96.2%	82.6%	87.8%	88.9%
Access to Piped Water	Bhalwal	1.4%	5.8%	12.9%	6.7%
	Kot Momin	0.0%	0.0%	1.4%	0.5%
	Sahiwal	1.2%	2.5%	0.5%	1.4%
	Sargodha	12.4%	12.4%	19.8%	14.8%
	Shahpur	5.1%	3.0%	14.6%	7.5%
	Sillanwali	0.4%	3.4%	13.1%	5.6%
Improved Sanitation	Bhalwal	31.7%	90.7%	99.1%	73.4%
	Kot Momin	10.3%	66.3%	99.2%	58.2%
	Sahiwal	21.1%	78.6%	99.2%	66.0%
	Sargodha	53.6%	99.1%	99.9%	83.9%
	Shahpur	19.2%	80.4%	98.8%	65.9%
	Sillanwali	38.5%	92.0%	99.7%	76.4%
Open Defecation	Bhalwal	69.5%	7.6%	0.0%	25.7%
	Kot Momin	89.6%	33.4%	0.1%	41.1%
	Sahiwal	78.6%	19.0%	0.0%	32.7%
	Sargodha	46.8%	0.8%	0.0%	15.9%
	Shahpur	75.7%	19.8%	0.9%	32.2%
	Sillanwali	60.0%	6.5%	0.0%	22.3%
Water and Soap Available for Hand Washing	Bhalwal	41.2%	84.0%	96.2%	73.5%
	Kot Momin	39.1%	71.5%	91.5%	65.4%
	Sahiwal	82.4%	95.2%	97.8%	91.8%
	Sargodha	73.5%	93.3%	96.6%	87.3%
	Shahpur	84.4%	83.2%	93.8%	86.9%
	Sillanwali	83.5%	94.5%	97.7%	91.3%

Indices	District		Tehsils				
	Sargodha	Bhalwal	Kot Momin	Sahiwal	Sargodha	Shahpur	Sillanwali
Exposure Index	1.87	1.28	NA	1.89	1.79	2.08	1.83
Susceptibility Index	0.34	0.23	0.11	0.53	0.45	0.29	0.26
Sanitation Index	2.21	1.51	NA	2.41	2.23	2.37	2.08

Figure 70 - Improved water in Sargodha

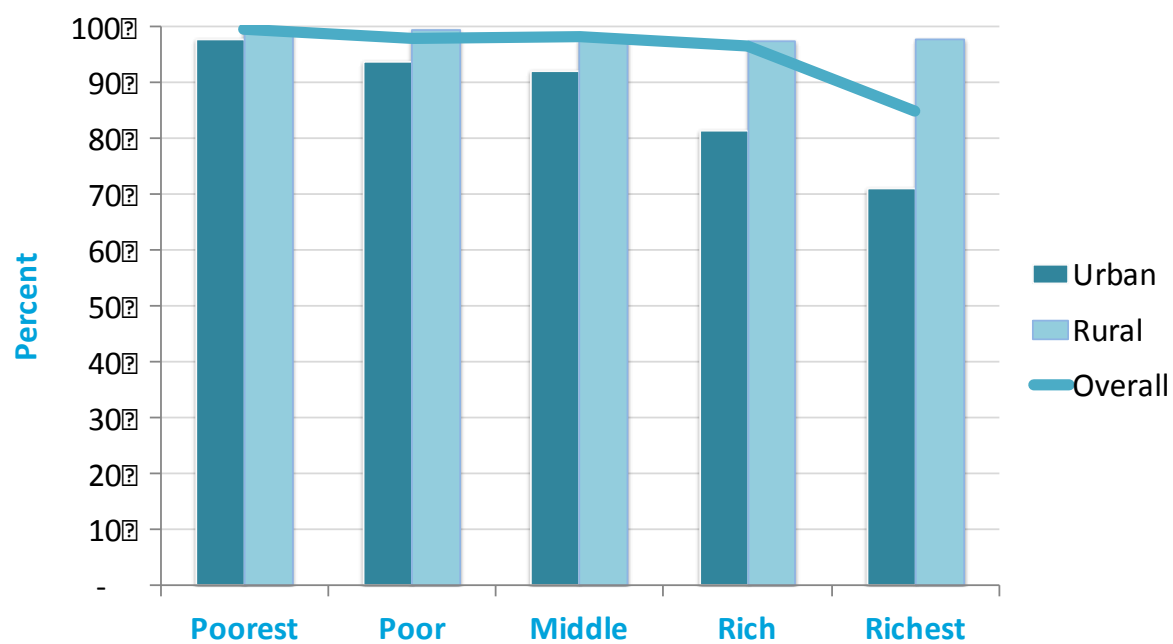
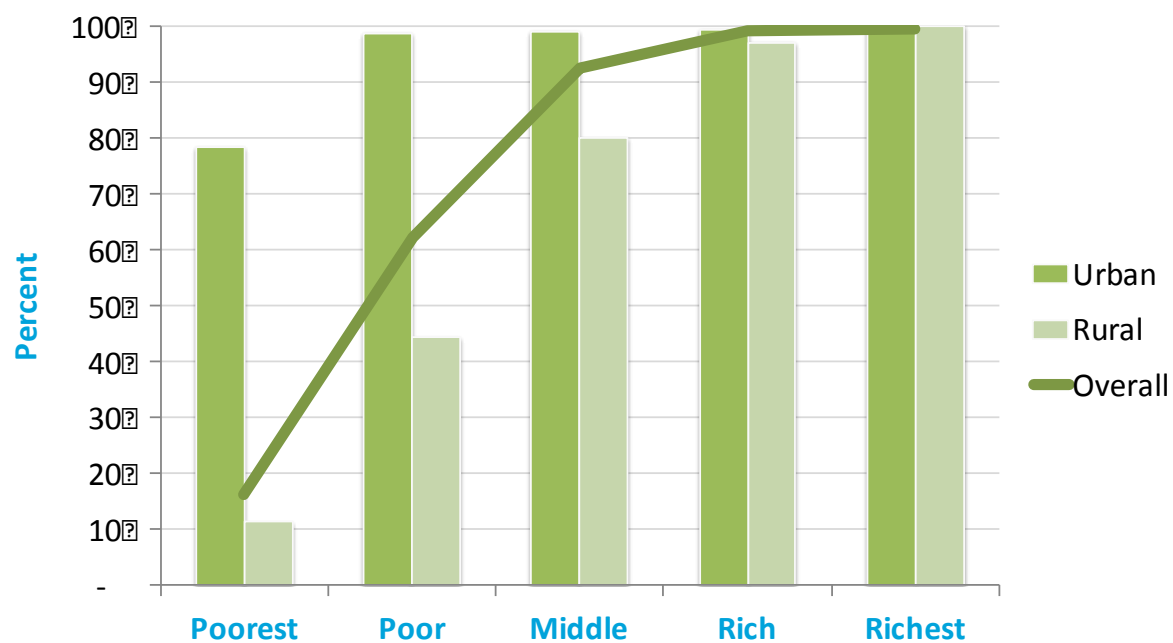


Figure 71 - Improved sanitation in district Sargodha



Bhakkar

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	99.6%	100.0%	100.0%	100.0%	100.0%	99.9%
	Rural	99.9%	99.7%	99.7%	100.0%	100.0%	99.8%
	Overall	99.8%	99.6%	100.0%	100.0%	100.0%	99.9%
Access to Piped Water	Urban	0.0%	7.0%	3.0%	1.4%	0.5%	1.3%
	Rural	0.0%	1.0%	0.4%	0.5%	1.6%	0.6%
	Overall	0.0%	1.3%	0.7%	0.7%	1.0%	0.7%
Improved Sanitation	Urban	69.4%	75.8%	76.5%	85.4%	91.0%	79.7%
	Rural	10.5%	35.8%	69.1%	89.1%	98.4%	60.6%
	Overall	11.8%	49.6%	80.3%	89.0%	91.1%	64.4%
Open Defecation	Urban	81.2%	12.7%	4.4%	0.0%	0.0%	2.1%
	Rural	87.4%	49.2%	19.1%	5.5%	0.2%	38.6%
	Overall	87.3%	47.5%	17.2%	4.2%	0.1%	31.3%
Water and Soap Available for Hand Washing	Urban	65.4%	45.6%	60.5%	65.4%	91.6%	78.7%
	Rural	32.3%	45.7%	62.0%	76.7%	94.0%	56.2%
	Overall	32.8%	45.7%	61.8%	74.0%	92.6%	60.5%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Bhakkar	99.4%	100.0%	100.0%	99.8%
	Darya Khan	99.7%	100.0%	100.0%	99.9%
	Kalur Kot	99.9%	100.0%	100.0%	100.0%
	Mankera	99.6%	99.8%	100.0%	99.8%
Access to Piped Water	Bhakkar	1.1%	0.0%	1.5%	0.9%
	Darya Khan	0.8%	0.1%	0.0%	0.3%
	Kalur Kot	0.6%	3.0%	0.4%	1.3%
	Mankera	0.0%	0.0%	1.2%	0.4%
Improved Sanitation	Bhakkar	36.5%	84.2%	91.9%	70.6%
	Darya Khan	22.0%	75.3%	89.1%	61.8%
	Kalur Kot	31.7%	87.5%	88.8%	69.0%
	Mankera	10.9%	44.9%	88.8%	48.0%
Open Defecation	Bhakkar	62.3%	13.7%	0.6%	25.8%
	Darya Khan	77.1%	18.0%	0.8%	32.1%
	Kalur Kot	67.8%	8.0%	0.5%	25.5%
	Mankera	88.6%	55.0%	6.6%	50.2%
Water and Soap Available for Hand Washing	Bhakkar	41.2%	66.4%	90.1%	64.6%
	Darya Khan	45.2%	61.5%	80.4%	62.0%
	Kalur Kot	47.4%	70.3%	86.3%	67.1%
	Mankera	19.4%	32.2%	72.6%	40.3%

Indices	District		Tehsils		
	Bhakkar	Bhakkar	Darya Khan	Kalur Kot	Mankera
Exposure Index	1.85	1.82	2.03	1.44	2.28
Susceptibility Index	0.41	0.41	0.46	0.35	0.18
Sanitation Index	2.26	2.23	2.49	1.79	2.46

Figure 72 - Improved water in district Bhakkar

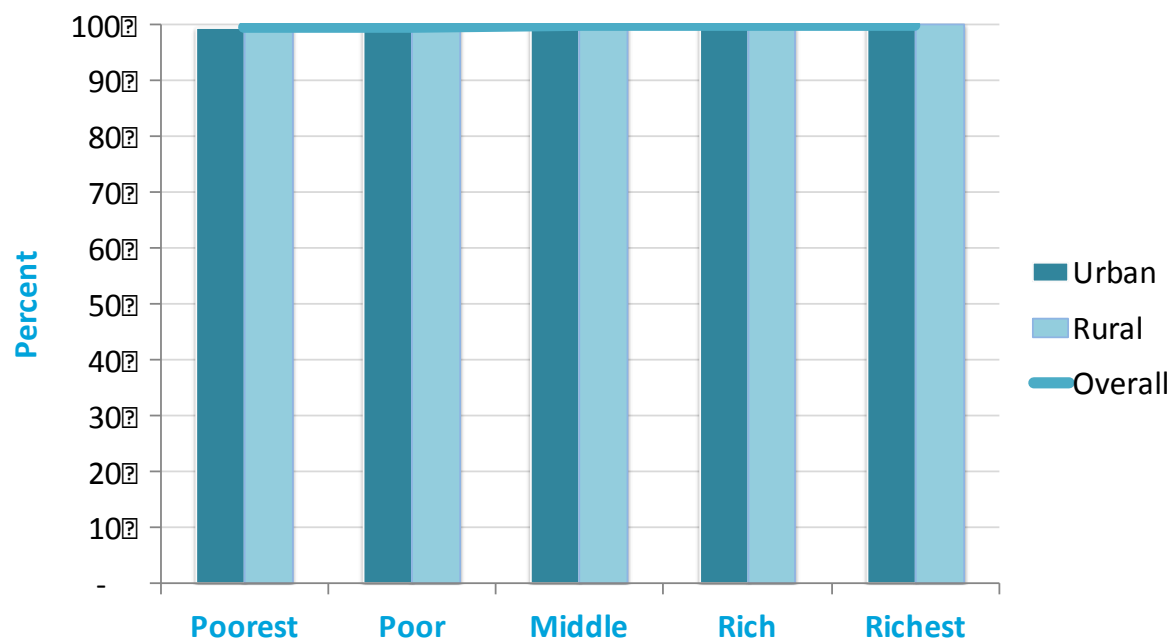
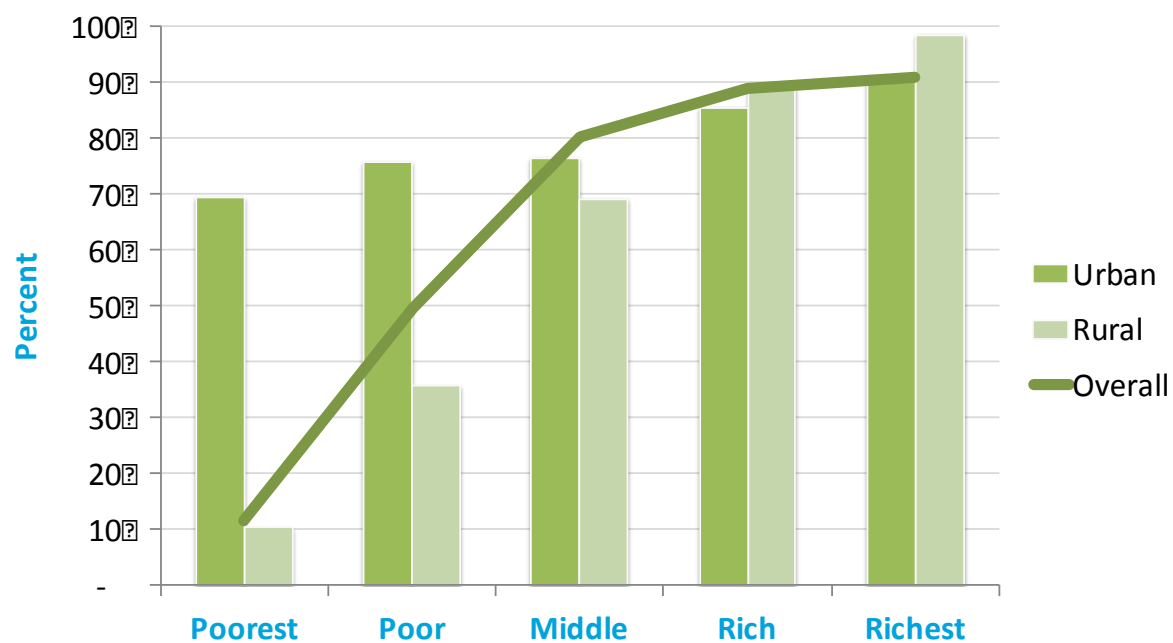


Figure 73 - Improved sanitation in district Bhakkar



WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	89.2%	94.5%	94.6%	91.5%	96.7%	93.3%
	Rural	90.7%	94.5%	95.2%	95.3%	96.8%	94.5%
	Overall	91.4%	95.4%	92.7%	95.8%	95.7%	94.2%
Access to Piped Water	Urban	9.8%	14.1%	33.2%	48.2%	47.5%	39.6%
	Rural	8.8%	24.0%	32.4%	43.1%	47.9%	28.2%
	Overall	8.9%	22.4%	32.6%	44.6%	47.7%	31.2%
Improved Sanitation	Urban	49.2%	89.7%	93.7%	94.7%	100.0%	85.6%
	Rural	7.2%	45.0%	81.0%	94.2%	100.0%	65.5%
	Overall	10.2%	61.3%	86.5%	97.2%	98.6%	70.8%
Open Defecation	Urban	91.0%	32.2%	11.7%	2.4%	0.0%	10.2%
	Rural	89.3%	36.5%	11.0%	1.7%	0.0%	33.9%
	Overall	89.4%	35.8%	11.2%	1.9%	0.0%	27.7%
Water and Soap Available for Hand Washing	Urban	22.8%	43.8%	68.6%	80.5%	93.6%	76.0%
	Rural	38.3%	65.0%	70.0%	85.1%	92.8%	65.6%
	Overall	37.5%	61.2%	69.7%	83.6%	93.3%	68.3%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Khushab	86.7%	96.2%	94.7%	92.4%
	Nurpur Thal	99.9%	98.8%	99.9%	99.5%
	Qaidabad	94.9%	96.5%	93.0%	94.8%
Access to Piped Water	Khushab	25.0%	43.1%	51.1%	39.7%
	Nurpur Thal	4.7%	26.2%	46.6%	25.8%
	Qaidabad	7.0%	16.0%	22.7%	15.2%
Improved Sanitation	Khushab	47.2%	90.4%	98.0%	78.3%
	Nurpur Thal	10.8%	54.9%	99.9%	54.9%
	Qaidabad	14.3%	79.0%	100.0%	64.1%
Open Defecation	Khushab	50.9%	7.2%	0.0%	19.4%
	Nurpur Thal	89.0%	43.3%	0.0%	44.2%
	Qaidabad	86.1%	21.2%	0.0%	35.9%
Water and Soap Available for Hand Washing	Khushab	47.6%	72.9%	90.3%	69.7%
	Nurpur Thal	27.7%	46.8%	71.6%	46.8%
	Qaidabad	54.9%	84.1%	99.7%	79.4%

Indices	District		Tehsils	
	Khushab	Khushab	Nurpur Thal	Qaidabad
Exposure Index	1.23	1.03	1.49	NA
Susceptibility Index	0.39	0.37	0.43	0.28
Sanitation Index	1.62	1.40	1.92	NA

Figure 74 - Improved water in district Khushab

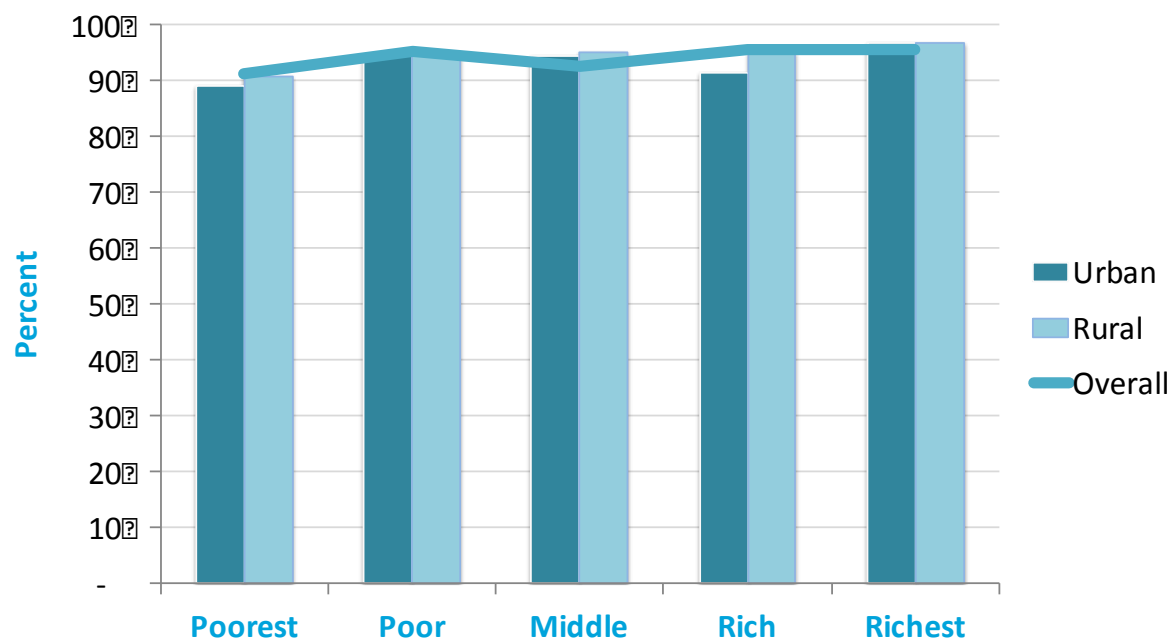
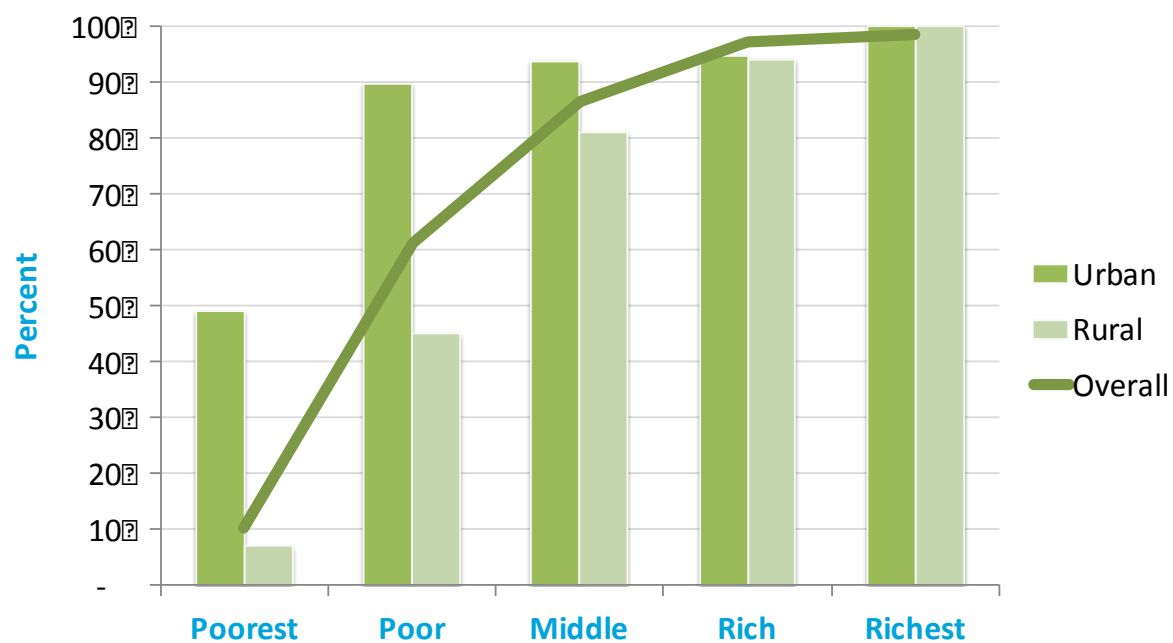


Figure 75 - Improved sanitation in district Khushab



Mianwali

WASH Indicators	Area	Wealth Quintiles					Overall
		Poorest	Poor	Middle	Rich	Richest	
Improved Water	Urban	99.9%	100.0%	100.0%	99.2%	100.0%	99.8%
	Rural	86.0%	93.9%	96.4%	98.4%	99.3%	94.8%
	Overall	88.6%	94.3%	97.6%	99.2%	99.8%	95.9%
Access to Piped Water	Urban	18.8%	1.4%	15.3%	26.1%	16.1%	17.8%
	Rural	17.3%	22.3%	29.9%	30.4%	54.9%	27.6%
	Overall	17.3%	21.0%	27.9%	29.2%	31.6%	25.4%
Improved Sanitation	Urban	94.1%	99.4%	100.0%	100.0%	100.0%	98.7%
	Rural	24.5%	67.2%	82.6%	96.7%	99.9%	74.2%
	Overall	33.2%	72.8%	92.1%	99.9%	100.0%	79.6%
Open Defecation	Urban	14.7%	0.0%	1.6%	0.0%	0.0%	0.6%
	Rural	66.0%	27.3%	8.0%	0.2%	0.0%	24.9%
	Overall	64.6%	25.6%	7.1%	0.1%	0.0%	19.5%
Water and Soap Available for Hand Washing	Urban	80.3%	71.2%	73.8%	86.0%	98.4%	89.7%
	Rural	49.8%	65.6%	80.5%	96.8%	97.4%	74.2%
	Overall	50.6%	66.0%	79.5%	93.9%	98.0%	77.6%

WASH Indicators	Tehsils	Wealth Tertiles			Overall
		Poor	Middle	Rich	
Improved Water	Isa Khel	75.8%	90.7%	94.6%	87.0%
	Mianwali	95.0%	99.2%	100.0%	98.0%
	Piplan	97.0%	99.9%	100.0%	99.0%
Access to Piped Water	Isa Khel	27.4%	43.9%	56.3%	42.5%
	Mianwali	18.4%	30.9%	37.1%	28.8%
	Piplan	7.9%	6.7%	3.2%	5.9%
Improved Sanitation	Isa Khel	42.3%	83.0%	99.1%	74.6%
	Mianwali	47.8%	93.3%	100.0%	80.0%
	Piplan	55.5%	93.6%	100.0%	82.8%
Open Defecation	Isa Khel	57.9%	16.9%	0.9%	25.3%
	Mianwali	51.1%	7.4%	0.0%	19.5%
	Piplan	40.3%	4.8%	0.0%	15.0%
Water and Soap Available for Hand Washing	Isa Khel	53.9%	71.4%	95.7%	74.6%
	Mianwali	55.5%	81.1%	96.7%	78.0%
	Piplan	59.4%	84.8%	94.3%	79.0%

Indices	District		Tehsils	
	Mianwali	Isa Khel	Mianwali	Piplan
Exposure Index	1.33	1.66	1.23	1.36
Susceptibility Index	0.92	1.31	0.81	0.83
Sanitation Index	2.25	2.98	2.03	2.19

Figure 76 - Improved water in district Mianwali

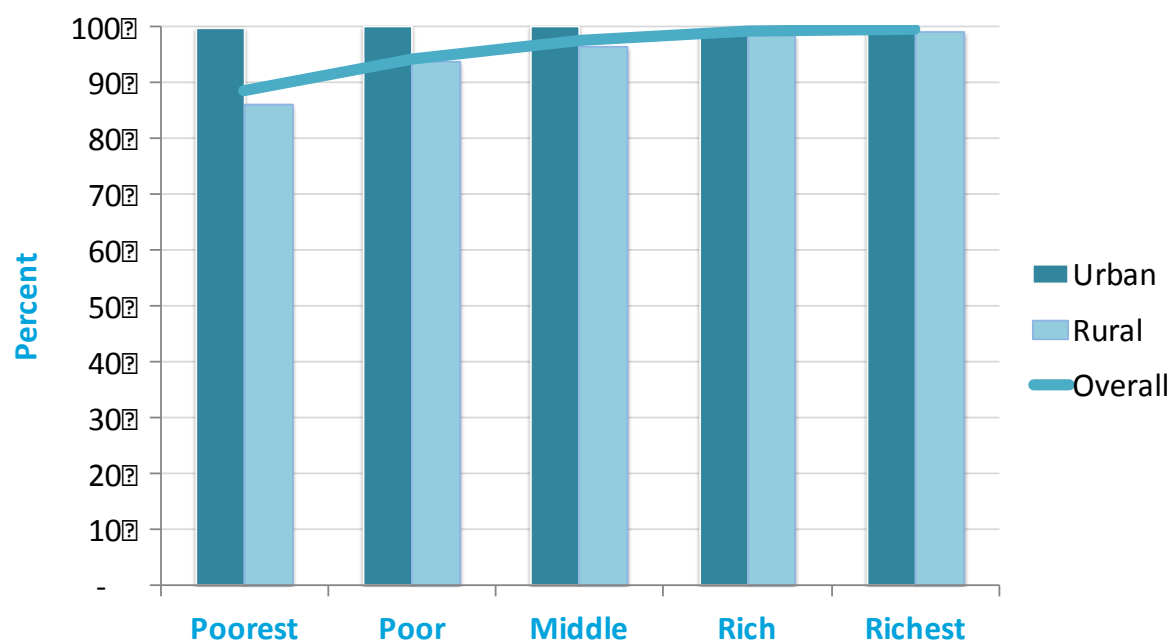
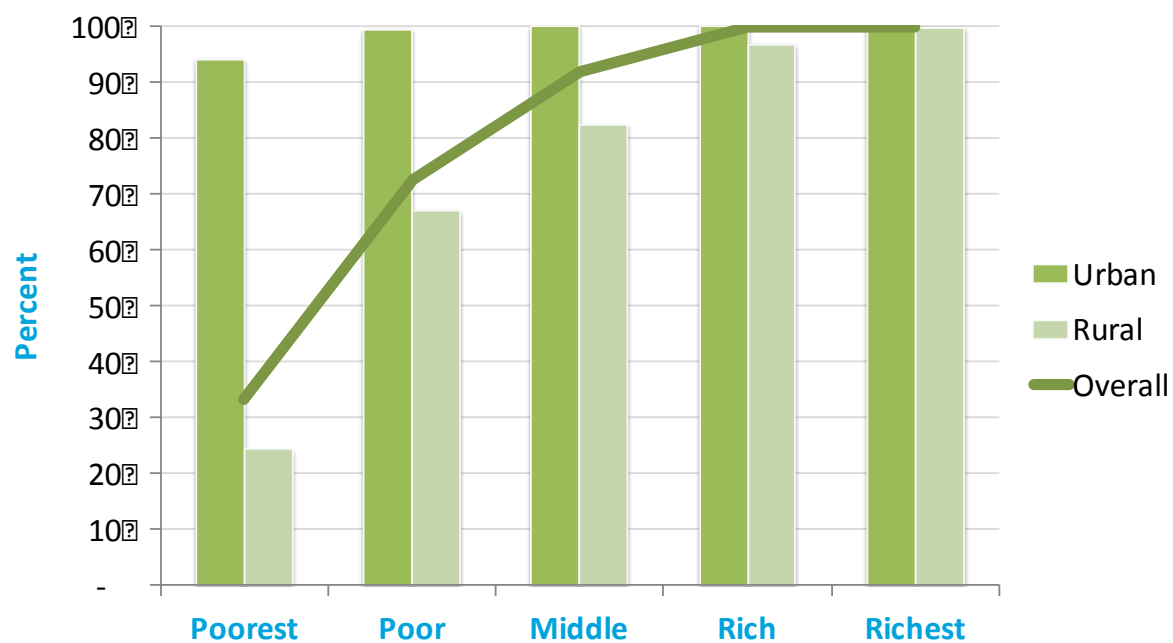


Figure 77 - Improved sanitation in district Mianwali



Conclusions and Recommendations

Conclusions

1. Only 4 out of 36 districts (11%) and 36 out of 150 tehsils (24%) have less than 90% access to improved water sources. However, the poorest groups have more access to improved water sources compared to the richest groups. This difference is significantly high in urban areas where about 79.4% of the richest have access to improved water sources compared to 95.2% in the richest group of rural areas. The access to improved water is lower in major cities compared to small cities and rural areas of Punjab. In major cities, the consumers are either purchasing water through small tanks/drums or fetching water from public tap/standpoint or even other means like bringing water from nearby areas and bottled water. This is 18% of overall water used for drinking purposes in urban areas. The drinking water extracted from the ground is considered chemically or bacterially contaminated in these urban areas.
2. In terms of access to piped water supply, there is a huge contrast between urban and rural areas where about 38.1% of urban areas have access to piped water compared to only 9.8% of rural areas. Within different quintiles, and compared to 57.7% of the poorest in the urban areas, only 30% of the richest in urban areas have access to piped water. In rural areas, the trend is reverse where the poorest have less access to piped water compared to the richest group. In many cities, aging infrastructure resulted in interrupted and uneven piped water supply in addition to leakages that also contaminate the drinking water sources. Therefore, the richest group prefers to use alternate methods like motorised pumps, purchase through donkey carts, etc.
3. There are 6 districts and 22 tehsils in Punjab where access to improved sanitation is below 50%. Overall, the improved sanitation is significantly low in rural areas (63.68%) compared to urban areas (94.25%) indicating that nearly one out of three persons in rural areas of Punjab is without improved sanitation. Similarly, the burden of open defecation is tilted towards rural areas (31.78%) compared to urban areas (1.14%), which demands urgent action to strengthen and enhance rural sanitation in the province. There are 5 districts and 27 tehsils in Punjab where open defecation is more than 40%.
4. There is a positive association between poverty and unimproved sanitation evident from the fact that 90.5% of the poorest are living with unimproved sanitation compared to 4% of the richest. Similarly, in case of open defecation, 65.8% of the poorest practice open defecation compared to only 0.2% of the richest indicating that open defecation is more common in poor income groups.

5. More than half of the poorest (53.8%) in Punjab indicated availability of water and soap for hand washing compared to 96.1% of the richest. There are 7 districts and 24 tehsils in Punjab where 40% population reported without water and soap for hand washing suggesting a need for an awareness and social mobilization campaign for hygiene to overcome the spread of water borne diseases.
6. Overall, southern districts have a higher Exposure Index compared to northern and central districts indicating high vulnerability of the local population of these areas. The Susceptibility Index is equally distributed in southern and northern districts. The overall Sanitation Index (a combination of exposure and susceptibility index) is high in southern districts compared to northern districts requiring urgent action to improve sanitation services.

Recommendations

1. The districts and tehsils with high Sanitation Index, in addition to high levels of open defecation and unimproved sanitation, should be given priority in developing improved sanitation initiatives.
2. The equity profile of districts especially coverage in the First (poorest) and Second (poor) quintiles both in urban and rural context should be used as a guideline for stakeholders including local governments to determine the required level of subsidy or social protection for the poor groups. At tehsil level, the First tertile (the poorest) should be used to inform about the level of coverage among the poorest groups.
3. Tehsil level equity mapping should be used for prioritising, planning, execution and monitoring of WASH interventions. This would also assist in fulfilling the requirements for at least five Sustainable Development Goals (1 – No Poverty; 3 – Good Health and Well-being; 6 – Clean Water and Sanitation; 10 – Reduced Inequalities; and 11 – Sustainable Cities and Communities).
4. The P&D Punjab and Bureau of Statistics Punjab should be encouraged to obtain data up to tehsils level on periodic basis under MICS rounds to ascertain change and progress. All new studies in WASH being managed or administrated by departments of Punjab should include equity data as an essential ingredient of the study to assess the change and impact on the poorest groups. The biennial data being collected under Pakistan Social and Living Standards Measurement (PSLM) survey and the Household Integrated Economic Survey (HIES) at the district level should be used for equity mapping on periodic basis to track the progress and change among different groups.
5. A comprehensive awareness and social mobilisation approach that is integrated into existing structures of government service providers like Lady Health Workers, Teachers,

Union Council secretaries and local leaders should be adopted to promote improved sanitation and hygiene behaviours to overcome the spread of diseases. Local communities and elected representatives should be encouraged to identify local social protection measures in providing support to the poorest group in construction of latrines.

6. A reward mechanism like provision of covered drains or sewer lanes or small wastewater treatment plants should be offered to the communities who are willing to construct or revisit their latrines in line with improved sanitation criteria.
7. Water zoning for appropriate water depths for ground water extraction at tehsil levels in Punjab should be developed to create awareness among the communities and service providers to overcome water quality and contamination issues.
8. Tehsils with high use of ground water for drinking purposes should be given priority to install water filtration plants to overcome depletion of underground water sources.
9. The stakeholders working in Punjab should be encouraged to introduce quintiles and tertiles in their baseline and end line surveys to gauge the impact and change in the coverage of WASH especially among the poorest and poor groups as a result of their interventions.

Annexures

Annexure 1 – Overall district WASH coverage and ranking

District	Improved Water		Piped Water		Improved Sanitation		Open Defecation		Soap and Water available for Hand Washing	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Bahawalpur	95.8	15	11.1	18	59.1	28	33.0	26	57.2	32
Bahawalnagar	92.3	29	43.9	2	63.0	24	33.2	27	77.1	20
Rahim Yar Khan	95.1	20	9.0	19	60.3	27	32.0	25	54.2	35
Dera Ghazi Khan	84.7	35	19.1	11	41.7	35	50.3	34	36.3	36
Layyah	99.9	1	0.2	36	58.9	29	39.0	30	61.5	28
Muzaffargarh	98.1	6	1.7	32	46.1	33	51.2	35	57.2	32
Rajanpur	86.5	33	3.1	28	33.4	36	61.8	36	70.2	22
Faisalabad	79.1	36	17.2	13	87.8	4	10.3	6	85.3	11
Chiniot	98.2	5	3.1	28	47.2	32	48.4	33	62.8	27
Jhang	98.8	4	1.6	33	47.6	31	44.2	32	55.1	34
Toba Tek Singh	94.0	25	36.0	4	85.8	7	13.5	8	77.7	18
Gujranwala	95.3	19	8.1	23	96.7	2	1.9	2	94.0	3
Gujrat	97.7	8	19.3	10	86.9	5	12.9	7	96.3	1
Hafizabad	96.3	13	1.3	34	73.0	17	24.4	18	94.3	2
Mandi Bahauddin	95.1	20	2.3	31	73.9	16	25.5	21	82.3	15
Narowal	93.3	27	8.5	20	82.6	9	16.8	10	90.3	7
Sialkot	92.4	28	11.9	15	92.9	3	6.3	3	91.6	6
Lahore	93.8	26	69.0	1	97.4	1	1.1	1	93.9	4
Kasur	95.6	17	17.6	12	72.5	18	22.7	16	82.6	13
Nankana Sahib	91.1	31	2.9	30	78.8	13	19.5	13	78.8	17
Sheikhupura	97.0	11	11.3	16	86.7	6	7.7	4	86.7	9
Multan	95.0	22	11.2	17	44.8	34	22.8	17	58.2	30
Khanewal	99.2	3	5.1	27	62.1	25	21.8	15	67.9	24
Lodhran	97.9	7	15.6	14	64.0	23	33.7	28	57.5	31
Rawalpindi	86.5	33	42.4	3	84.2	8	8.7	5	92.1	5
Attock	91.2	30	28.6	6	78.2	14	15.7	9	63.9	26
Chakwal	91.0	32	26.5	7	79.7	11	19.4	12	64.0	25
Vehari	95.8	15	8.3	21	68.0	21	25.3	20	73.3	21
Jhelum	94.8	23	25.4	8	81.9	10	17.1	11	84.8	12
Sahiwal	96.5	12	5.4	26	69.7	20	25.9	22	88.4	8
Okara	97.1	10	5.8	25	55.8	30	39.1	31	85.7	10
Pakpattan	97.3	9	7.8	24	60.4	26	36.2	29	80.2	16
Sargodha	95.5	18	8.3	21	74.1	15	25.1	19	82.4	14
Bhakkar	99.9	1	0.7	35	64.4	22	31.3	24	60.5	29
Khushab	94.2	24	31.2	5	70.8	19	27.7	23	68.3	23
Mianwali	95.9	14	25.4	8	79.6	12	19.5	13	77.6	19

Annexure 2 – Overall district WASH coverage and ranking in urban areas

District	Improved Water		Piped Water		Improved Sanitation		Open Defecation		Soap and Water available for Hand Washing	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Bahawalpur	88.5	25	15.1	23	85.4	27	2.6	26	79.6	31
Bahawalnagar	86.9	28	62.2	2	83.2	29	2.9	28	89.8	22
Rahim Yar Khan	81.2	32	15.5	22	87.5	22	3.4	29	88.7	24
Dera Ghazi Khan	57.5	36	43.4	4	81.1	32	0.0	1	73.1	36
Layyah	99.3	3	0.6	36	85.8	24	1.9	22	74.0	35
Muzaffargarh	94.9	8	2.4	33	86.7	23	6.3	35	86.5	28
Rajanpur	97.4	5	8.1	31	81.2	31	0.3	5	93.6	13
Faisalabad	59.0	35	27.0	15	96.7	14	0.3	5	94.9	10
Chiniot	93.4	14	10.9	27	85.0	28	3.4	29	83.5	30
Jhang	94.5	10	9.0	29	54.0	36	4.0	32	87.6	25
Toba Tek Singh	77.6	33	33.3	11	98.9	4	1.0	17	95.1	9
Gujranwala	92.7	17	13.8	25	98.1	8	0.3	5	96.1	7
Gujrat	92.6	18	33.2	12	99.6	1	0.3	5	98.8	1
Hafizabad	90.9	20	1.6	34	95.1	17	4.4	33	91.4	18
Mandi Bahauddin	87.9	26	8.3	30	96.6	15	2.6	26	87.0	27
Narowal	85.6	31	38.7	7	97.1	13	1.7	21	90.2	21
Sialkot	86.0	30	33.5	10	99.3	2	0.2	4	97.6	3
Lahore	92.1	19	86.1	1	99.0	3	0.0	1	94.8	11
Kasur	92.8	16	36.1	8	94.3	19	0.3	5	95.5	8
Nankana Sahib	66.5	34	5.6	32	97.9	9	1.3	19	92.8	14
Sheikhpura	94.5	10	29.4	14	98.3	7	0.4	10	92.2	16
Multan	90.0	22	24.8	16	73.1	34	0.6	11	86.1	29
Khanewal	99.0	4	9.4	28	67.3	35	2.1	23	79.1	32
Lodhran	95.7	7	13.5	26	85.8	24	4.4	33	87.2	26
Vehari	86.4	29	23.5	18	81.4	30	1.2	18	90.9	19
Sahiwal	93.5	13	20.5	19	97.4	11	2.3	25	97.9	2
Pakpattan	94.2	12	35.2	9	97.7	10	0.7	14	96.8	5
Okara	90.9	20	23.9	17	91.9	21	0.6	11	97.5	4
Rawalpindi	88.9	23	56.6	3	93.9	20	0.1	3	96.5	6
Attock	96.8	6	41.9	5	95.0	18	0.9	16	90.6	20
Chakwal	88.8	24	17.7	21	98.6	6	0.8	15	92.5	15
Jhelum	94.9	8	31.0	13	97.3	12	1.6	20	94.4	12
Sargodha	87.2	27	14.5	24	95.2	16	3.5	31	91.6	17
Bhakkar	99.9	1	1.3	35	79.7	33	2.1	23	78.7	33
Khushab	93.3	15	39.6	6	85.6	26	10.2	36	76.0	34
Mianwali	99.8	2	17.8	20	98.7	5	0.6	11.0	89.7	23

Annexure 3 – Overall district WASH coverage and ranking in rural areas

District	Improved water		Piped Water		Improved Sanitation		Open Defecation		Soap and Water Available for Hand Washing	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Bahawalpur	99.0	8	9.3	15	47.5	30	46.4	30	47.5	33
Bahawalnagar	93.7	30	39.3	1	58.0	25	40.8	27	73.8	20
Rahim Yar Khan	98.8	10	7.3	16	53.0	28	39.7	26	44.7	34
Dera Ghazi Khan	89.8	33	14.5	12	34.3	33	59.8	34	29.5	36
Layyah	100.0	1	0.1	35	55.0	26	44.3	29	59.5	26
Muzaffargarh	98.5	11	1.6	30	40.7	32	57.1	33	52.8	30
Rajanpur	84.8	35	2.3	26	25.7	36	71.6	36	66.5	22
Faisalabad	93.5	31	10.2	14	81.5	6	17.4	8	78.5	14
Chiniot	100.0	1	0.2	34	32.9	34	65.4	35	54.7	29
Jhang	99.7	4	0.0	36	46.2	31	52.6	32	47.9	32
Toba Tek Singh	97.6	21	36.6	2	83.0	4	16.1	5	74.2	18
Gujranwala	97.8	16	2.6	25	95.2	1	3.5	1	91.9	3
Gujrat	99.3	5	15.0	10	83.0	4	16.7	7	95.6	2
Hafizabad	98.9	9	1.1	32	62.2	21	34.1	22	95.7	1
Mandi Bahauddin	96.0	24	1.6	30	71.0	15	28.4	16	81.6	12
Narowal	94.3	28	4.5	20	80.7	8	18.9	9	90.3	5
Sialkot	94.3	28	5.3	18	90.9	3	8.1	3	89.7	6
Lahore	99.1	7	14.8	11	92.4	2	4.8	2	90.9	4
Kasur	96.4	23	11.8	13	65.7	17	29.8	17	78.3	15
Nankana Sahib	97.8	16	2.1	28	73.6	14	24.4	13	75.1	17
Sheikhpura	98.2	15	2.9	24	81.3	7	11.1	4	84.0	9
Multan	97.7	19	3.8	22	29.4	35	34.8	23	43.4	35
Khanewal	99.2	6	4.1	21	60.9	22	26.6	15	65.5	24
Lodhran	98.3	14	16.0	9	60.1	24	38.9	25	51.1	31
Vehari	97.7	19	5.3	18	65.3	19	30.1	18	69.9	21
Sahiwal	97.1	22	2.3	26	64.0	20	30.8	19	86.4	8
Pakpattan	97.8	16	3.2	23	54.1	27	42.1	28	77.4	16
Okara	98.4	12	2.1	28	48.4	29	47.0	31	83.5	10
Rawalpindi	84.3	36	29.6	3	75.5	11	16.4	6	88.6	7
Attock	89.7	34	25.2	7	73.9	13	19.5	10	57.4	27
Chakwal	91.2	32	27.6	5	77.4	9	21.6	11	61.3	25
Jhelum	94.8	25	23.7	8	77.2	10	21.8	12	82.0	11
Sargodha	98.4	12	6.1	17	66.7	16	32.7	20	79.1	13
Bhakkar	99.8	3	0.6	33	60.6	23	38.6	24	56.2	28
Khushab	94.5	27	28.2	4	65.5	18	33.9	21	65.6	23
Mianwali	94.8	25	27.6	5	74.2	12	24.9	14.0	74.2	18

Annexure 4 – Overall Tehsil WASH coverage and ranking

Tehsil/Town	Improved water		Piped Water		Improved Sanitation		Open Defecation		Soap and Water Available for Hand Washing	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
Ahmadpur East	98.8	33	2.6	124	47.0	131	45.0	134	39.8	147
Bahawalpur City	88.5	125	5.9	98	83.4	49	10.6	38	74.9	86
Bahawalpur Sadar	99.8	10	6.0	95	59.8	111	35.2	113	61.6	118
Hasilpur	96.0	71	27.2	35	57.9	116	29.7	103	62.4	115
Khairpur Tamewali	97.6	50	3.5	117	36.5	145	43.1	128	41.0	144
Yazman	97.3	54	23.9	41	54.9	121	42.4	126	58.4	127
Bahawalnagar	91.1	119	42.3	21	51.1	126	43.1	128	74.1	88
Chishtian	94.6	91	54.1	13	67.3	94	28.3	99	82.1	71
Fort Abbas	88.1	126	33.0	30	74.9	72	24.5	84	82.7	69
Haroonabad	91.0	120	59.9	9	77.4	66	22.0	79	83.0	65
Minchinabad	96.3	66	24.6	39	50.9	127	43.4	130	65.2	107
Khanpur	99.4	22	4.7	106	60.5	108	25.7	90	63.8	111
Liaquatpur	96.6	63	10.8	69	49.6	128	37.4	118	50.4	137
Rahim Yar Khan	94.9	81	7.0	87	68.0	92	27.9	97	53.8	134
Sadiqabad	91.3	118	12.8	59	60.0	109	36.6	115	50.2	138
Dera Ghazi Khan	81.9	142	7.6	82	42.5	138	50.4	141	40.4	145
Taunsa	94.1	98	57.6	10	38.9	143	50.0	139	21.3	150
Chobara	100.0	1	0.3	141	44.1	136	55.5	145	51.4	136
Karor	99.9	4	0.1	145	69.4	87	27.7	96	59.6	124
Layyah	99.9	4	0.1	145	62.5	102	34.6	110	68.6	100
Alipur	99.5	20	1.1	134	38.2	144	58.0	147	54.6	132
Jatoi	99.9	4	0.0	148	31.2	146	67.4	149	44.2	143
Kot Addu	99.4	22	0.0	148	57.5	118	39.8	122	57.5	129
Muzaffargarh	96.3	66	3.3	119	45.2	134	52.0	143	61.6	118
Jampur	83.2	138	3.7	115	29.6	147	69.1	150	60.4	123
Rajanpur	87.0	128	1.1	134	40.3	142	49.8	138	85.6	52
Rojhan	95.8	73	6.0	95	28.8	148	67.3	148	63.6	112
Chak Jhumra Town	97.7	49	12.4	61	91.2	29	8.4	33	82.8	68
Iqbal Town	47.3	150	12.3	63	96.2	16	2.9	21	89.2	42
Jinnah Town	75.2	145	38.6	25	95.3	19	1.3	12	95.2	12
Lyallpur Town	92.1	113	33.7	28	96.5	12	1.8	15	90.0	37
Madina Town	64.6	148	12.1	64	93.3	21	3.2	22	94.2	18
Jaranwala Town	93.9	101	10.8	69	82.5	52	16.3	64	86.3	49
Sammundri Town	84.5	135	15.0	52	93.1	23	5.7	24	86.2	50
Tandlianwala Town	96.7	60	0.3	141	52.3	124	45.9	135	48.8	140
Chiniot	99.2	30	1.6	129	51.4	125	40.0	123	73.3	90
Bhowana	99.8	10	0.0	148	41.1	140	57.5	146	52.0	135
Lalian	95.7	76	7.4	85	46.6	132	51.6	142	59.0	126
Ahmadpur Sial	100.0	1	0.2	144	41.6	139	52.2	144	61.7	117

18 - Hazari	99.4	22	0.1	145	59.2	113	38.7	120	65.6	105
Jhang	98.2	41	1.3	131	44.2	135	44.3	133	48.5	141
Shorkot	99.4	22	4.8	104	53.0	123	42.8	127	63.1	114
Gojra	91.7	115	41.6	22	90.6	30	8.2	32	85.5	53
Kamalia	94.0	100	3.8	114	73.5	77	26.0	93	68.7	99
Toba Tek Singh	95.8	73	52.1	15	89.9	31	9.5	37	77.5	82
Aroop Town	90.5	121	4.6	108	98.6	6	0.6	9	96.9	6
Khialli Shahpur Town	94.7	87	4.3	111	97.8	8	1.4	13	92.9	23
Nandipur Town	97.8	46	9.9	74	97.5	9	1.0	10	93.3	22
Qila Dedar Singh Town	95.5	78	15.9	48	96.7	11	1.2	11	92.9	23
Naushera Virkan Town	99.8	10	4.8	104	93.2	22	5.9	27	90.1	36
Kamoke Town	96.5	64	5.9	98	94.6	20	2.4	19	92.0	26
Wazirabad Town	94.9	81	11.0	68	96.4	14	2.1	17	97.4	3
Gujrat	96.8	58	28.4	34	87.6	34	12.0	46	97.1	4
Kharian	99.4	22	8.8	76	86.5	40	13.5	53	95.9	9
Sarai Alamgir	96.5	64	7.5	83	83.8	46	16.0	61	94.0	19
Hafizabad	94.7	87	1.7	127	84.4	44	14.2	54	94.9	13
Pindi Bhattian	98.3	38	0.8	137	58.5	114	37.3	117	93.5	20
Malakwal	98.0	42	1.2	133	68.3	90	31.0	104	79.7	76
Mandi Bahauddin	93.7	103	2.4	125	81.9	53	17.3	67	85.7	51
Phalia	94.8	83	2.7	123	71.3	81	28.3	99	81.1	73
Narowal	82.3	141	17.3	47	87.5	35	11.5	42	85.4	54
Shakargarh	99.9	4	2.2	126	79.3	59	20.4	76	94.7	15
Zafarwal	97.5	52	7.8	81	81.8	54	18.1	69	88.3	44
Daska	99.7	17	4.4	109	96.4	14	2.7	20	90.7	34
Pasrur	98.6	36	11.6	67	84.6	43	14.6	55	85.0	58
Sambrial	94.4	94	12.4	61	92.5	25	5.8	26	91.7	29
Sialkot	84.5	135	15.8	50	95.9	17	3.3	23	95.7	10
Cantonment	81.0	143	65.4	7	96.5	12	0.0	1	91.4	30
Aziz Bhatti Town	97.1	56	82.4	6	98.6	6	0.3	8	95.5	11
Data Ganj Bakhsh Town	94.3	95	88.9	3	100.0	1	0.0	1	97.0	5
Gulberg Town	92.9	107	92.2	1	100.0	1	0.0	1	98.7	2
Iqbal Town	97.8	46	45.5	18	95.8	18	1.8	15	90.6	35
Nishtar Town	97.2	55	54.8	12	96.8	10	1.6	14	89.5	39
Ravi Town	95.5	78	89.7	2	99.2	5	0.0	1	96.0	8
Samanabad Town	85.2	134	83.9	5	99.9	3	0.0	1	98.9	1
Shalimar Town	88.9	123	87.9	4	99.8	4	0.0	1	94.7	15
Wagha Town	96.2	69	36.0	27	87.5	35	8.1	30	93.5	20
Chunian	92.5	109	11.7	66	72.5	79	24.7	85	85.1	57
Kasur	98.8	33	29.8	32	66.4	95	28.2	98	81.1	73
Kot Radha Kishan	92.3	111	4.4	109	82.7	51	11.7	44	83.5	63
Pattoki	95.0	80	9.7	75	78.5	63	16.1	62	81.9	72
Shahkot	82.7	139	1.7	127	88.9	32	10.6	38	85.0	58
Sangla Hill	82.7	139	3.1	121	86.4	41	12.3	49	84.3	62
Nankana Sahib	94.1	98	3.9	113	70.9	83	27.6	95	72.8	91

Safdarabad	97.5	52	0.6	138	87.5	35	8.6	34	88.5	43
Ferozewala	98.3	38	20.5	44	77.4	66	8.6	34	83.2	64
Muridke	93.7	103	13.6	56	91.6	28	7.1	29	82.2	70
Sharaqpur	96.7	60	14.6	54	91.8	27	5.7	24	92.7	25
Sheikhupura	97.9	44	6.2	93	87.0	39	8.1	30	88.3	44
Bosan Town	94.7	87	12.9	58	70.6	85	16.3	64	64.3	109
Mousa Pak (Shaheed) Town	93.8	102	14.1	55	41.0	141	13.1	51	66.5	104
Shah Rukn-E-Alam Town	94.5	93	15.9	48	55.9	120	11.8	45	69.3	98
Sher Shah Town	94.3	95	8.1	79	45.4	133	15.8	59	61.6	118
Jalalpur Pirwala Town	96.1	70	10.6	72	23.4	149	49.0	136	38.3	148
Shujabad Town	97.8	46	2.9	122	20.7	150	44.0	131	34.8	149
Jahanian	97.0	57	7.0	87	64.9	99	11.2	41	77.8	81
Kabirwala	99.8	10	5.3	103	48.2	129	38.2	119	59.4	125
Khanewal	98.9	32	6.2	93	71.1	82	16.4	66	70.1	96
Mian Channu	99.6	18	3.3	119	68.8	89	12.6	50	71.6	95
Dunyapur	96.7	60	44.0	19	76.4	68	22.8	81	60.6	122
Karor Pacca	98.5	37	4.1	112	56.5	119	41.3	125	54.3	133
Lodhran	98.3	38	6.4	91	61.9	103	34.6	110	58.2	128
Burewala	94.3	95	10.6	72	73.8	75	15.4	57	89.7	38
Mailsi	96.8	58	7.9	80	67.9	93	31.8	105	50.2	138
Vehari	96.3	66	5.9	98	61.1	105	29.1	101	79.3	78
Gujar Khan Town	86.1	131	8.4	77	80.6	57	17.6	68	88.2	46
Kahuta Town	69.8	147	13.4	57	68.1	91	20.7	77	89.4	40
Kallar Syedan Town	79.7	144	12.0	65	70.7	84	20.2	75	89.4	40
Kotli Sattian Town	56.2	149	7.4	85	60.0	109	23.6	82	81.1	73
Murree Town	71.2	146	23.5	42	76.1	70	11.6	43	72.1	93
Taxila Town	92.3	111	52.8	14	92.4	26	2.3	18	94.3	17
Potohar Town	94.7	87	48.2	17	78.9	62	13.3	52	94.9	13
Rawal Town	88.0	127	62.1	8	93.1	23	0.0	1	96.5	7
Attock	91.4	117	38.8	24	81.3	55	12.0	46	67.6	101
Fateh Jang	85.8	132	24.8	38	63.6	101	29.1	101	64.2	110
Hazro	92.1	113	10.7	71	86.1	42	6.9	28	63.4	113
Hassanabdal	95.6	77	49.7	16	83.8	46	9.1	36	71.8	94
Jand	92.9	107	19.3	46	81.3	55	16.1	62	56.9	130
Pindi Gheb	91.7	115	37.7	26	75.2	71	19.9	73	61.6	118
Chakwal	86.4	130	26.0	36	79.3	59	19.6	72	66.7	103
Choa Saiden Shah	85.5	133	33.6	29	78.2	65	21.6	78	76.1	84
Kalar Kahar	83.4	137	32.7	31	83.7	48	15.4	57	72.6	92
Talagang	99.4	22	23.0	43	79.0	61	20.1	74	55.3	131
Dina	96.0	71	24.2	40	88.6	33	10.8	40	85.2	55
Jhelum	97.6	50	8.4	77	87.1	38	12.1	48	91.1	33
Pind Dadan Khan	93.3	105	56.4	11	73.7	76	24.4	83	76.5	83
Sohawa	89.0	122	19.8	45	74.6	73	25.0	86	83.0	65
Chichawatni	98.8	33	6.4	91	66.0	96	25.2	87	84.5	61
Sahiwal	94.8	83	4.7	106	72.4	80	26.4	94	91.2	32

Depalpur	97.9	44	6.0	95	61.1	105	35.1	112	82.9	67
Okara	94.6	91	6.9	89	57.6	117	37.0	116	84.9	60
Renala Khurd	99.4	22	3.7	115	43.2	137	49.5	137	91.9	27
Arifwala	94.8	83	12.6	60	61.0	107	33.0	109	85.2	55
Pakpattan	99.4	22	3.5	117	59.8	111	39.1	121	75.8	85
Bhalwal	95.8	73	6.7	90	73.4	78	25.7	90	73.5	89
Kot Momin	99.8	10	0.5	139	58.2	115	41.1	124	65.4	106
Sahiwal	99.9	4	1.4	130	66.0	96	32.7	108	91.8	28
Sargodha	93.3	105	14.8	53	83.9	45	15.9	60	87.3	47
Shahpur	99.6	18	7.5	83	65.9	98	32.2	107	86.9	48
Sillanwali	88.9	123	5.6	102	76.4	68	22.3	80	91.3	31
Bhakkar	99.8	10	0.9	136	70.6	85	25.8	92	64.6	108
Darya Khan	99.9	4	0.3	141	61.8	104	32.1	106	62.0	116
Kalur Kot	100.0	1	1.3	131	69.0	88	25.5	89	67.1	102
Mankera	99.8	10	0.4	140	48.0	130	50.2	140	40.3	146
Khushab	92.4	110	39.7	23	78.3	64	19.4	70	69.7	97
Nurpur Thal	99.5	20	25.8	37	54.9	121	44.2	132	46.8	142
Qaidabad	94.8	83	15.2	51	64.1	100	35.9	114	79.4	77
Isa Khel	87.0	128	42.5	20	74.6	73	25.3	88	74.6	87
Mianwali	98.0	42	28.8	33	80.0	58	19.5	71	78.0	80
Piplan	99.0	31	5.9	98	82.8	50	15.0	56	79.0	79

Annexure 5 – Tehsil water supply source, toilet facility and hand washing

Table 15 - Main source of drinking water supply

District	Tehsil	Main source of drinking water supply																		Percentage using improved sources of drinking water	Number of household members
		Improved sources										Unimproved sources									
		Piped into dwelling	Piped into compound, yard or plot	Piped to neighbour	Public tap / standpipe	Tube well	Hand pump (tap)	Motorized pump (donkey / turbine)	Protected well	Protected spring	Bottled water (mineral)	Unprotected well	Unprotected spring	Tanker-truck	Cart with small tank / drum	Surface water (*Toba, river, stream, dam, lake, pond, well)	Other/ Missing	Total			
Bahawalpur	Ahmadpur East	0.4	0.0	2.2	0.0	0.2	64.7	31.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	100	98.8	4,927
Bahawalpur	Bahawalpur City	2.6	0.2	1.3	1.8	0.4	9.0	73.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	100	88.5	4,482
Bahawalpur	Bahawalpur Sadar	2.6	0.0	0.0	3.3	0.4	37.7	55.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	100	99.8	2,316
Bahawalpur	Hasilpur	12.4	9.6	2.0	3.2	0.9	35.9	32.0	0.0	0.0	0.0	0.2	0.0	0.5	0.7	0.0	0.0	2.6	100	96.0	2,880
Bahawalpur	Khairpur Tamewali	1.0	0.4	0.6	1.6	1.2	53.2	39.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	100	97.6	1,510
Bahawalpur	Yazman	12.3	9.7	1.5	0.3	0.1	55.2	17.1	1.1	0.0	0.0	1.5	0.0	0.0	0.0	1.0	0.1	100	97.3	3,261	
Bahawalnagar	Bahawalnagar	18.6	21.2	1.7	0.9	0.3	41.0	7.5	0.0	0.0	0.2	0.3	0.0	0.0	1.0	0.3	7.1	100	91.3	4,542	
Bahawalnagar	Chishtian	13.1	37.3	3.7	0.1	0.1	23.9	16.5	0.0	0.0	0.0	0.3	0.0	0.2	3.5	0.3	1.1	100	94.6	3,559	
Bahawalnagar	Fort Abbas	17.5	1.3	8.3	5.9	0.0	18.6	36.4	0.0	0.0	0.0	1.4	0.0	0.0	1.1	6.3	3.1	100	88.1	2,357	
Bahawalnagar	Haroonabad	44.9	5.9	7.0	2.1	0.0	19.0	12.2	0.0	0.0	0.0	0.0	0.0	0.0	2.7	2.0	4.3	100	91.0	3,162	
Bahawalnagar	Minchinabad	2.2	19.4	3.0	0.0	0.0	58.7	13.0	0.0	0.0	0.1	0.0	0.0	0.0	3.3	0.0	0.3	100	96.4	2,825	
RY Khan	Khanpur	2.8	0.6	0.0	1.2	0.0	71.9	22.8	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.2	100	99.4	4,675	
RY Khan	Liaquatpur	3.4	6.4	0.1	0.9	0.0	71.9	13.7	0.1	0.0	0.1	0.3	0.0	0.0	0.9	0.1	2.0	100	96.7	5,116	
RY Khan	Rahim Yar Khan	2.4	1.4	0.2	3.0	0.7	55.9	31.3	0.0	0.0	0.2	0.2	0.0	0.5	4.0	0.3	0.0	100	95.0	7,156	
RY Khan	Sadiqabad	6.3	2.0	1.8	2.8	0.5	42.8	35.1	0.0	0.0	0.2	0.0	0.0	0.6	7.3	0.1	0.6	100	91.5	6,730	
DG Khan	Dera Ghazi Khan	2.8	1.1	0.3	3.4	0.1	67.4	6.5	0.4	0.1	0.1	0.4	3.9	0.4	6.7	4.2	2.4	100	82.0	8,713	
DG Khan	Taunsa	29.2	1.0	4.9	22.5	0.3	24.5	11.7	0.0	0.0	0.0	0.0	0.0	0.0	0.2	5.7	0.0	100	94.1	2,603	
Layyah	Chobara	0.0	0.0	0.0	0.3	0.0	88.4	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100	100.0	3,602	
Layyah	Karor	0.0	0.0	0.1	0.0	0.3	76.3	23.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	100	99.9	3,221	
Layyah	Layyah	0.0	0.0	0.0	0.1	0.0	70.2	29.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	100	99.9	5,286	
Muzaffargarh	Alipur	0.0	0.0	0.6	0.5	0.1	86.9	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	100	99.5	3,700	

Muzaffargarh	Jatoi	0.0	0.0	0.0	0.0	0.1	91.5	8.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.1	100	99.9	3,555
Muzaffargarh	Kot Addu	0.0	0.0	0.0	0.0	0.0	86.7	12.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.6	100	99.4	8,094
Muzaffargarh	Muzaffargarh	0.0	0.0	2.7	0.6	0.0	85.4	7.6	0.0	0.0	0.0		0.0	0.0	0.1	1.7	0.0	1.9	100	96.3	12,878
Rajanpur	Jampur	0.3	0.0	0.4	3.0	3.4	63.1	10.9	2.1	0.0	0.1		1.4	0.4	0.0	2.3	10.6	2.0	100	83.3	4,157
Rajanpur	Rajanpur	0.0	0.1	0.4	0.7	0.2	68.5	17.1	0.0	0.0	0.0		0.4	0.0	0.0	1.9	10.7	0.1	100	87.0	3,160
Rajanpur	Rojhan	0.0	0.0	0.0	6.0	0.2	85.4	4.2	0.0	0.0	0.0		0.0	0.0	0.0	3.1	0.6	0.6	100	95.8	1,300
Faisalabad	Chak Jhumra Town	2.4	0.8	0.2	9.1	0.0	58.6	26.7	0.0	0.0	0.0		0.0	0.0	0.0	1.9	0.3	0.0	100	97.7	2,066
Faisalabad	Iqbal Town	3.3	2.4	0.3	6.4	0.1	16.2	18.7	0.0	0.0	0.9		0.0	0.0	0.0	51.4	0.1	0.4	100	48.1	6,744
Faisalabad	Jinnah Town	22.3	1.8	1.0	13.4	0.2	4.5	32.0	0.0	0.0	1.1		0.0	0.0	0.1	21.4	0.8	1.4	100	76.3	6,211
Faisalabad	Lyallpur Town	11.3	10.9	1.4	10.2	0.0	7.3	51.1	0.0	0.0	0.7		0.0	0.0	0.1	6.8	0.0	0.4	100	92.8	5,331
Faisalabad	Madina Town	3.8	0.6	0.8	6.9	0.0	19.3	33.3	0.0	0.0	1.3		0.0	0.0	0.2	33.9	0.0	0.0	100	65.9	6,876
Faisalabad	Jaranwala Town	4.7	2.8	1.3	2.0	0.0	45.2	37.9	0.0	0.0	0.1		0.0	0.0	0.0	3.4	0.0	2.6	100	94.0	8,390
Faisalabad	Sammundri Town	7.4	4.1	1.7	1.8	0.1	35.9	33.5	0.0	0.0	0.1		0.0	0.0	0.0	7.4	0.0	8.0	100	84.5	3,843
Faisalabad	Tandlianwala Town	0.0	0.0	0.0	0.3	0.0	39.4	57.1	0.0	0.0	0.1		0.0	0.0	0.0	1.9	0.0	1.4	100	96.8	4,774
Chiniot	Chiniot	0.8	0.0	0.6	0.2	0.0	45.1	52.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.8	100	99.2	3,407
Chiniot	Bhowana	0.0	0.0	0.0	0.0	0.8	54.5	44.5	0.0	0.0	0.0		0.0	0.0	0.0	0.1	0.0	0.0	100	99.9	2,153
Chiniot	Lalian	0.3	0.0	0.1	6.9	0.3	67.4	20.6	0.0	0.0	0.0		0.0	0.0	0.0	1.7	0.0	2.6	100	95.7	2,803
Jhang	Ahmadpur Sial	0.2	0.0	0.0	0.0	0.0	84.0	15.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100	100.0	2,011
Jhang	18 - Hazari	0.0	0.1	0.0	0.0	0.0	71.8	27.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.6	100	99.4	2,462
Jhang	Jhang	0.2	0.3	0.1	0.7	0.2	52.6	44.2	0.0	0.0	0.2		0.0	0.0	0.0	1.3	0.0	0.4	100	98.4	9,492
Jhang	Shorkot	1.6	2.8	0.2	0.3	0.1	78.4	16.1	0.0	0.0	0.0		0.0	0.0	0.2	0.1	0.0	0.3	100	99.4	2,936
Toba Tek Singh	Gojra	17.6	3.7	0.4	19.8	0.7	20.9	28.5	0.0	0.0	0.2		0.0	0.0	0.0	4.9	0.1	3.1	100	91.9	3,961
Toba Tek Singh	Kamalia	2.4	0.1	1.0	0.3	1.1	26.2	62.9	0.0	0.0	0.0		0.0	0.0	0.0	0.9	1.0	4.1	100	94.0	3,412
Toba Tek Singh	Toba Tek Singh	36.2	9.0	2.9	4.0	0.2	8.9	34.6	0.0	0.0	0.1		0.0	0.0	0.0	0.4	1.0	2.7	100	95.9	5,474
Lahore	Cantonment	62.4	2.5	0.4	0.0	0.4	0.0	15.2	0.0	0.0	4.0		0.0	0.0	0.4	0.0	0.0	14.7	100	84.9	3,550
Gujranwala	Aroop Town	3.1	0.0	0.4	1.2	0.0	3.8	82.1	0.0	0.0	0.7		0.0	0.0	0.0	0.0	0.0	8.8	100	91.2	5,015
Gujranwala	Khialli Shahpur Town	3.6	0.3	0.5	0.0	0.2	5.4	84.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	5.3	100	94.7	5,338
Gujranwala	Nandipur Town	6.4	0.5	0.4	2.7	0.0	5.7	82.1	0.0	0.0	0.2		0.0	0.0	0.0	0.0	0.0	2.0	100	98.0	3,693
Gujranwala	Qila Dedar Singh Town	15.2	0.1	0.1	0.6	0.0	6.9	72.6	0.0	0.0	0.9		0.0	0.0	0.0	0.0	0.0	3.6	100	96.4	4,580
Gujranwala	Naushera Virkan Town	2.5	0.1	0.3	1.9	0.0	27.2	67.8	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.2	100	99.8	3,284
Gujranwala	Kamoke Town	3.7	0.2	0.5	1.5	0.0	16.4	74.2	0.0	0.0	0.3		0.0	0.0	0.0	0.0	0.0	3.2	100	96.8	3,154
Gujranwala	Wazirabad Town	5.3	0.0	0.3	5.3	0.0	20.1	63.9	0.0	0.0	0.3		0.0	0.0	0.0	0.0	0.0	4.8	100	95.2	4,892
Gujrat	Gujrat	20.7	0.3	3.7	3.7	0.0	9.2	59.2	0.0	0.0	0.1		0.0	0.0	0.0	0.2	0.0	2.9	100	96.9	8,931
Gujrat	Kharian	8.8	0.1	0.0	0.0	0.0	21.1	69.5	0.0	0.0	0.3		0.0	0.0	0.0	0.0	0.0	0.3	100	99.7	6,051
Gujrat	Sarai Alamgir	7.3	0.0	0.2	0.0	0.0	13.2	75.7	0.1	0.0	0.1		0.2	0.0	0.0	0.0	0.0	3.3	100	96.5	1,558
Hafizabad	Hafizabad	0.2	0.2	0.1	1.2	0.1	50.0	42.9	0.0	0.0	0.1		0.0	0.0	0.0	0.1	0.7	4.4	100	94.8	3,662

Hafizabad	Pindi Bhattian	0.0	0.0	0.8	0.0	0.7	61.1	35.7	0.0	0.0	0.2		0.0	0.0	0.0	0.5	0.0	1.0	100	98.5	2,872
M Bahauddin	Malakwal	0.7	0.0	0.3	0.1	0.3	65.8	30.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	2.0	100	98.0	2,206
M Bahauddin	Mandi Bahauddin	1.0	0.2	0.3	0.8	0.4	43.5	47.3	0.0	0.0	0.1		0.0	0.0	0.0	3.7	0.5	2.1	100	93.8	3,503
M Bahauddin	Phalia	1.1	0.2	0.6	0.9	0.0	64.8	27.3	0.0	0.0	0.0		0.0	0.0	0.0	0.3	0.0	4.8	100	94.8	5,892
Narowal	Narowal	3.1	0.1	1.6	12.5	0.0	21.0	44.0	0.0	0.0	0.2		0.0	0.0	0.0	0.0	0.0	17.5	100	82.5	3,503
Narowal	Shakargarh	1.5	0.0	0.1	0.6	0.0	27.7	70.1	0.0	0.0	0.1		0.0	0.0	0.0	0.0	0.0	0.0	100	100.0	4,632
Narowal	Zafarwal	3.6	0.1	0.8	3.3	0.0	22.6	67.1	0.0	0.0	0.0		0.0	0.0	0.0	0.1	0.0	2.4	100	97.5	1,799
Sialkot	Daska	2.9	0.1	0.1	1.2	0.0	21.4	73.9	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.3	100	99.7	4,590
Sialkot	Pasrur	10.3	0.1	0.3	0.9	0.0	27.1	59.9	0.0	0.0	0.1		0.0	0.0	0.0	0.0	0.0	1.2	100	98.8	5,170
Sialkot	Sambrial	10.8	0.3	0.2	1.1	0.2	27.7	54.2	0.0	0.0	0.1		0.0	0.0	0.0	0.0	0.0	5.5	100	94.5	2,286
Sialkot	Sialkot	14.8	0.3	0.0	0.7	0.3	10.1	58.3	0.0	0.0	0.9		0.0	0.0	0.0	0.3	0.0	14.3	100	85.4	8,866
Lahore	Aziz Bhatti Town	80.2	0.2	1.3	0.7	0.0	0.3	14.4	0.0	0.0	1.4		0.0	0.0	0.0	0.0	0.0	1.5	100	98.5	4,068
Lahore	Data Ganj Bakhsh Town	88.5	0.2	0.0	0.2	0.0	0.0	5.4	0.0	0.0	3.8		0.0	0.0	0.0	0.0	0.0	1.9	100	98.1	5,839
Lahore	Gulberg Town	90.4	1.0	0.0	0.9	0.0	0.0	0.7	0.0	0.0	6.3		0.0	0.0	0.0	0.0	0.0	0.7	100	99.3	2,689
Lahore	Iqbal Town	41.1	0.0	1.4	3.0	0.4	4.6	47.3	0.0	0.0	1.5		0.0	0.0	0.0	0.0	0.0	0.7	100	99.3	11,260
Lahore	Nishtar Town	53.6	0.0	0.2	1.1	0.3	11.6	30.5	0.0	0.0	1.4		0.0	0.0	0.0	0.0	0.0	1.4	100	98.6	5,919
Lahore	Ravi Town	88.7	0.0	0.0	1.0	0.0	0.3	5.5	0.0	0.0	0.5		0.0	0.0	0.0	0.0	0.0	4.1	100	95.9	4,372
Lahore	Samanabad Town	83.9	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	7.0		0.0	0.0	0.0	0.0	0.0	7.9	100	92.1	2,564
Lahore	Shalimar Town	83.8	1.1	0.0	3.0	0.2	0.0	0.8	0.0	0.0	2.8		0.0	0.0	0.0	0.0	0.0	8.3	100	91.7	5,279
Lahore	Wagha Town	30.8	0.2	0.7	4.3	0.3	14.0	45.7	0.1	0.0	0.3		0.0	0.0	0.0	0.8	0.0	2.6	100	96.6	3,025
Kasur	Chunian	6.1	0.4	1.8	3.4	0.2	21.3	59.4	0.0	0.0	0.0		0.0	0.0	0.1	0.4	0.0	7.0	100	92.5	4,615
Kasur	Kasur	18.5	2.9	2.0	6.3	0.3	40.1	28.6	0.0	0.0	0.2		0.0	0.0	0.0	0.0	0.0	1.0	100	99.0	6,908
Kasur	Kot Radha Kishan	2.2	1.0	0.2	1.0	0.0	30.4	57.4	0.0	0.0	0.3		0.0	0.0	0.0	0.0	0.0	7.4	100	92.6	1,797
Kasur	Pattoki	4.9	2.2	1.3	1.3	0.4	23.6	61.3	0.0	0.0	2.0		0.0	0.0	0.1	1.4	0.3	1.2	100	96.9	4,077
Nankana Sahib	Shahkot	0.0	0.0	0.2	1.5	0.5	39.8	40.8	0.0	0.0	1.2		0.0	0.0	0.2	13.7	1.0	1.1	100	83.9	1,601
Nankana Sahib	Sangla Hill	2.2	0.0	0.3	0.6	0.0	44.3	35.3	0.0	0.0	0.0		0.0	0.0	0.0	15.5	0.0	1.8	100	82.7	1,004
Nankana Sahib	Nankana Sahib	2.9	0.0	0.3	0.8	0.4	41.4	48.4	0.0	0.0	0.3		0.0	0.0	0.0	0.8	0.1	4.7	100	94.4	4,476
Sheikhupura	Ferozewala	18.6	0.2	0.4	1.3	0.4	21.7	55.8	0.0	0.0	0.0		0.0	0.0	0.0	0.4	0.0	1.3	100	98.4	2,884
Sheikhupura	Muridke	9.8	0.2	2.5	1.2	0.0	25.9	54.2	0.0	0.0	0.1		0.0	0.0	0.0	0.5	0.0	5.7	100	93.8	2,981
Nankana Sahib	Safdarabad	0.6	0.0	0.0	0.0	0.0	32.3	64.6	0.0	0.0	0.2		0.0	0.0	0.0	0.8	0.3	1.2	100	97.7	1,336
Sheikhupura	Sharaqpur	11.7	0.6	1.6	0.7	0.8	18.3	63.0	0.0	0.0	0.0		0.0	0.0	0.0	1.2	0.0	2.1	100	96.7	1,825
Sheikhupura	Sheikhupura	5.4	0.0	0.7	0.2	0.0	26.0	65.7	0.0	0.0	0.9		0.0	0.0	0.0	0.6	0.0	0.6	100	98.8	7,733
Multan	Bosan Town	0.0	0.4	0.7	11.8	0.0	30.0	51.7	0.0	0.0	0.4		0.0	0.0	0.0	0.0	0.0	5.0	100	95.0	4,485
Multan	Mousa Pak (Shaheed) Town	0.0	0.0	1.5	12.6	0.0	8.8	71.0	0.0	0.0	0.2		0.0	0.0	0.0	0.0	0.0	5.9	100	94.1	4,723
Multan	Shah Rukn-E-Alam Town	0.3	0.0	1.6	14.0	0.0	11.5	67.1	0.0	0.0	0.7		0.0	0.0	0.0	0.0	0.0	4.8	100	95.2	5,565
Multan	Sher Shah Town	0.0	0.0	1.8	6.3	0.1	22.9	63.2	0.0	0.0	0.2		0.0	0.0	0.0	0.0	0.0	5.5	100	94.5	4,554

Multan	Jalalpur Pirwala Town	0.0	0.1	2.0	8.5	0.2	46.2	39.1	0.0	0.0	0.0		0.0	0.0	2.1	0.8	0.0	1.1	100	96.1	3,316
Multan	Shujabad Town	0.0	0.0	2.8	0.1	0.0	44.5	50.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	2.2	100	97.8	3,820
Khanewal	Jahanian	0.4	0.0	1.4	5.1	0.2	16.7	73.2	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	3.0	100	97.0	1,911
Khanewal	Kabirwala	2.2	0.0	1.4	1.7	0.3	48.5	45.6	0.0	0.0	0.2		0.0	0.0	0.0	0.0	0.0	0.1	100	99.9	5,348
Khanewal	Khanewal	0.5	0.0	2.6	3.1	0.0	21.8	70.9	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	1.1	100	98.9	4,120
Khanewal	Mian Channu	2.1	0.3	0.5	0.4	0.0	17.2	79.1	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.4	100	99.6	4,855
Lodhran	Dunyapur	2.1	0.2	2.9	38.8	0.6	20.9	31.3	0.0	0.0	0.3		0.0	0.0	0.1	0.7	0.0	2.2	100	97.0	2,515
Lodhran	Karor Pacca	1.1	0.0	0.7	2.3	0.0	34.9	59.5	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	1.5	100	98.5	3,132
Lodhran	Lodhran	0.2	2.5	0.8	2.9	1.0	28.3	62.6	0.0	0.0	0.1		0.0	0.0	0.0	0.2	0.0	1.5	100	98.3	3,813
Vehari	Burewala	4.8	4.6	1.1	0.1	0.7	9.8	73.3	0.0	0.0	0.4		0.0	0.0	0.0	0.1	0.0	5.2	100	94.7	5,790
Vehari	Mailsi	3.2	0.1	0.9	3.7	1.2	28.0	59.7	0.0	0.0	0.0		0.0	0.0	0.0	2.0	0.0	1.2	100	96.8	6,009
Vehari	Vehari	5.4	0.1	0.3	0.1	0.1	20.7	69.7	0.0	0.0	0.1		0.0	0.0	0.0	1.6	0.2	1.8	100	96.4	4,891
Rawalpindi	Gujar Khan Town	5.5	0.5	1.7	0.7	0.1	5.5	57.9	14.0	0.3	0.2		8.5	0.2	0.3	0.3	0.0	4.3	100	86.3	3,269
Rawalpindi	Kahuta Town	8.3	2.7	2.1	0.4	0.0	4.7	29.9	17.3	4.6	0.0		16.5	3.2	0.2	0.3	0.3	9.6	100	69.8	1,203
Rawalpindi	Kallar Sayedan Town	6.4	2.4	3.1	0.2	0.0	4.7	33.8	27.9	1.2	0.0		9.6	1.2	0.0	0.4	0.0	9.1	100	79.7	1,414
Rawalpindi	Kotli Sattian Town	4.1	2.5	0.0	0.7	0.0	3.0	4.0	7.3	34.6	0.0		5.5	36.3	0.7	0.0	0.0	1.4	100	56.2	838
Rawalpindi	Murree Town	19.5	2.1	0.0	1.9	0.0	1.6	3.1	5.4	37.7	0.2		3.4	25.0	0.0	0.0	0.0	0.3	100	71.4	1,159
Rawalpindi	Taxila Town	45.7	0.8	3.9	2.4	1.3	0.6	25.7	11.3	0.6	0.0		3.1	0.0	0.2	0.1	0.0	4.4	100	92.3	3,307
Rawalpindi	Potohar Town	33.4	1.6	8.3	5.0	1.0	3.7	32.7	9.0	0.1	0.0		2.4	0.4	0.5	0.0	0.1	2.0	100	94.7	5,035
Rawalpindi	Rawal Town	48.2	0.2	4.6	9.1	10.3	0.2	12.1	3.4	0.0	0.6		0.0	0.0	0.5	0.0	0.0	10.9	100	88.6	8,942
Attock	Attock	37.2	0.2	1.4	0.0	0.0	4.9	44.5	2.8	0.5	0.0		7.0	0.0	0.0	0.0	0.0	1.6	100	91.4	1,961
Attock	Fateh Jang	15.5	0.0	4.4	4.9	0.5	11.8	34.8	13.6	0.4	0.0		10.7	0.7	0.0	0.0	0.0	2.9	100	85.8	1,801
Attock	Hazro	8.4	0.2	0.5	1.6	0.0	17.2	52.5	8.7	3.0	0.0		7.6	0.3	0.0	0.0	0.0	0.0	100	92.1	1,812
Attock	Hassanabdal	37.5	1.5	3.5	7.2	2.3	4.0	17.1	19.4	3.1	0.0		1.7	0.0	0.1	0.8	0.0	1.9	100	95.6	997
Attock	Jand	17.8	0.4	1.0	0.0	0.0	31.7	37.8	4.2	0.0	0.0		4.5	0.5	0.4	0.0	1.3	0.5	100	92.9	1,398
Attock	Pindi Gheb	36.7	0.0	1.0	0.0	0.5	28.0	22.7	2.7	0.0	0.0		3.6	0.0	4.2	0.0	0.1	0.4	100	91.7	1,243
Chakwal	Chakwal	18.8	0.1	3.1	4.2	0.4	6.9	50.6	2.5	0.0	0.2		2.5	2.0	3.6	3.3	0.0	2.0	100	86.6	2,957
Chakwal	Choa Saiden Shah	24.0	5.5	2.5	1.6	0.0	6.1	44.1	1.7	0.0	0.0		13.0	0.5	0.5	0.2	0.0	0.3	100	85.5	749
Chakwal	Kalar Kahar	24.3	7.0	0.2	1.1	0.6	11.7	37.5	0.9	0.1	0.1		0.7	0.4	10.8	3.7	0.2	0.8	100	83.4	1,126
Chakwal	Talagang	21.5	0.4	0.6	0.5	0.0	18.9	57.5	0.0	0.0	0.0		0.0	0.0	0.0	0.4	0.0	0.1	100	99.4	3,079
Jhelum	Dina	20.6	0.5	3.1	0.0	0.0	5.9	50.0	15.0	0.9	0.0		1.4	0.0	0.0	0.0	0.0	2.6	100	96.0	1,416
Jhelum	Jhelum	7.6	0.3	0.3	0.1	0.0	10.1	77.2	1.9	0.0	0.4		0.0	0.0	0.0	0.2	0.0	1.8	100	98.0	3,003
Jhelum	Pind Dadan Khan	48.2	0.1	2.1	6.0	1.9	10.6	22.2	0.0	2.3	0.4		1.1	4.3	0.4	0.2	0.0	0.3	100	93.7	1,927
Jhelum	Sohawa	17.3	0.0	1.4	1.0	0.0	9.4	46.4	13.5	0.0	0.0		6.3	1.0	0.4	0.2	1.0	2.2	100	89.0	1,236
Sahiwal	Chichawatni	2.0	0.0	0.7	3.7	0.3	29.8	62.3	0.0	0.0	0.1		0.0	0.0	0.0	0.1	0.0	0.9	100	98.9	5,941
Sahiwal	Sahiwal	0.2	0.0	0.8	3.7	0.0	26.8	63.3	0.0	0.0	0.4		0.0	0.0	0.0	0.2	0.0	4.6	100	95.2	8,338

Okara	Depalpur	2.8	1.1	0.7	1.4	1.7	29.1	61.0	0.0	0.0	0.0		0.0	0.0	0.0	1.7	0.0	0.4	100	97.9	9,998
Okara	Okara	5.0	0.0	0.2	1.8	0.6	35.5	51.5	0.0	0.0	0.3		0.0	0.0	0.0	1.7	0.0	3.4	100	94.9	7,606
Okara	Renala Khurd	0.8	0.8	1.5	0.6	1.4	64.0	30.3	0.0	0.0	0.0		0.0	0.0	0.0	0.3	0.1	0.2	100	99.4	5,348
Pakpattan	Arifwala	4.7	2.3	0.1	5.6	1.7	15.0	65.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	5.1	100	94.9	5,089
Pakpattan	Pakpattan	1.3	0.0	0.7	1.5	2.8	23.2	70.0	0.0	0.0	0.0		0.0	0.0	0.0	0.4	0.0	0.2	100	99.4	5,700
Sargodha	Bhalwal	4.3	1.7	0.2	0.4	0.0	81.5	7.7	0.0	0.0	0.1		0.0	0.0	0.2	3.5	0.1	0.3	100	95.9	3,975
Sargodha	Kot Momin	0.1	0.0	0.0	0.4	0.0	89.1	10.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.2	100	99.8	2,487
Sargodha	Sahiwal	1.0	0.0	0.4	0.0	0.0	82.1	16.4	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.1	100	99.9	1,938
Sargodha	Sargodha	6.8	1.5	1.9	4.6	0.1	58.7	19.7	0.0	0.0	0.2		0.0	0.0	0.3	5.9	0.1	0.3	100	93.5	7,156
Sargodha	Shahpur	1.5	0.2	2.0	3.8	0.0	75.4	16.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.1	0.3	100	99.6	2,025
Sargodha	Sillanwali	2.9	0.1	0.5	2.1	0.0	53.5	29.9	0.0	0.0	0.0		0.0	0.0	0.0	1.0	0.0	10.1	100	88.9	1,967
Bhakkar	Bhakkar	0.1	0.0	0.4	0.4	0.0	60.9	38.1	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.2	100	99.8	3,536
Bhakkar	Darya Khan	0.1	0.0	0.2	0.0	0.0	74.3	25.3	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.1	100	99.9	2,057
Bhakkar	Kalur Kot	0.8	0.4	0.1	0.0	0.0	57.1	41.6	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100	100.0	1,508
Bhakkar	Mankera	0.1	0.0	0.0	0.3	0.0	76.7	22.7	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.2	100	99.8	1,409
Khushab	Khushab	31.0	2.2	2.1	4.5	2.0	36.0	12.7	0.5	1.5	0.0		0.1	0.4	0.5	1.8	4.4	0.3	100	92.4	4,245
Khushab	Nurpur Thal	8.4	12.8	3.5	1.1	0.0	63.8	10.0	0.0	0.0	0.0		0.0	0.0	0.0	0.3	0.0	0.2	100	99.5	1,201
Khushab	Qaidabad	6.8	2.6	1.2	4.6	0.9	57.2	20.5	0.4	0.6	0.0		0.8	2.1	0.0	0.8	1.5	0.0	100	94.8	1,843
Mianwali	Isa Khel	34.3	1.1	3.8	3.3	0.9	33.1	10.0	0.4	0.0	0.0		5.8	1.0	0.0	2.0	4.1	0.2	100	87.0	1,717
Mianwali	Mianwali	18.5	2.0	2.0	6.3	1.3	34.5	32.4	0.5	0.6	0.0		0.2	0.0	0.3	0.4	0.8	0.3	100	98.0	4,050
Mianwali	Piplan	4.6	0.1	1.2	0.0	0.4	48.7	43.9	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	1.0	100	99.0	2,216
Punjab		12.5	1.5	1.2	3.0	0.5	33.6	40.7	0.6	0.2	0.4		0.4	0.2	0.1	2.2	0.4	2.6	100	94.1	597,462

Table 16 - Type of toilet facility used by household

District	Tehsil	Type of toilet facility used by household															Improved Sanitation facility	Number of household members
		Improved sanitation facility							Unimproved sanitation facility						Open defecation (no facility, bush, field)	Total		
		Flush to piped sewer system	Flush to septic tank	Flush to pit (latrine)	Flush to unknown place / Not sure / DK where	Ventilated Improved Pit latrine (VIP)	Pit latrine with slab	Composting toilet		Flush to somewhere else	Pit latrine without slab / Open pit	Bucket	Other	Missing				
Bahawalpur	Ahmadpur East	11.1	17.0	18.4	0.0	0.0	0.3	0.2		7.5	0.4	0.0	0.0	0.1	45.0	100	47.0	4,927
Bahawalpur	Bahawalpur City	65.0	8.3	4.9	0.0	0.2	5.1	0.0		6.0	0.0	0.0	0.0	0.0	10.6	100	83.4	4,482
Bahawalpur	Bahawalpur Sadar	7.8	24.1	27.6	0.0	0.1	0.3	0.0		4.8	0.1	0.0	0.0	0.0	35.2	100	59.8	2,316
Bahawalpur	Hasilpur	12.0	17.8	26.4	0.1	0.3	1.3	0.0		10.8	0.0	0.0	1.1	0.5	29.7	100	57.9	2,880
Bahawalpur	Khairpur Tamewali	2.8	15.8	15.9	0.2	1.6	0.3	0.0		18.5	0.6	0.0	1.4	0.0	43.1	100	36.5	1,510
Bahawalpur	Yazman	8.1	7.9	37.5	0.0	0.1	1.3	0.1		2.7	0.0	0.0	0.0	0.0	42.4	100	54.9	3,261
Bahawalnagar	Bahawalnagar	6.7	43.4	1.1	0.0	0.0	0.0	0.0		0.0	0.0	0.0	5.8	0.0	43.1	100	51.1	4,542
Bahawalnagar	Chishtian	3.3	44.1	18.8	0.0	1.1	0.0	0.0		0.6	0.0	0.0	3.9	0.0	28.3	100	67.3	3,559
Bahawalnagar	Fort Abbas	22.9	34.2	16.8	0.2	0.4	0.4	0.0		0.0	0.2	0.0	0.5	0.0	24.5	100	74.9	2,357
Bahawalnagar	Haroonabad	20.5	54.6	1.5	0.0	0.0	0.8	0.0		0.0	0.4	0.0	0.3	0.0	22.0	100	77.4	3,162
Bahawalnagar	Minchinabad	0.1	38.8	12.0	0.0	0.0	0.0	0.0		5.2	0.0	0.0	0.5	0.0	43.4	100	50.9	2,825
RY Khan	Khanpur	21.1	3.4	35.9	0.0	0.0	0.0	0.0		13.4	0.3	0.0	0.2	0.0	25.8	100	60.5	4,675
RY Khan	Liaquatpur	4.4	4.8	39.9	0.0	0.0	0.6	0.0		12.8	0.0	0.0	0.0	0.1	37.5	100	49.6	5,116
RY Khan	Rahim Yar Khan	34.1	3.7	29.8	0.0	0.4	0.0	0.0		3.6	0.2	0.0	0.1	0.1	27.9	100	68.0	7,156
RY Khan	Sadiqabad	29.2	12.3	17.7	0.0	0.2	0.7	0.0		2.1	0.9	0.0	0.4	0.1	36.6	100	60.0	6,730
DG Khan	Dera Ghazi Khan	8.1	27.6	1.9	0.0	3.9	0.8	0.3		4.0	2.2	0.0	0.8	0.1	50.4	100	42.5	8,713
DG Khan	Taunsa	3.3	14.2	5.0	0.0	10.1	3.3	3.0		3.1	7.6	0.0	0.4	0.0	50.0	100	38.9	2,603
Layyah	Chobara	0.0	15.1	28.9	0.0	0.1	0.0	0.0		0.0	0.5	0.0	0.0	0.0	55.5	100	44.1	3,602
Layyah	Karor	0.5	53.5	15.5	0.0	0.0	0.0	0.0		2.2	0.0	0.3	0.4	0.0	27.7	100	69.4	3,221
Layyah	Layyah	2.9	51.6	7.8	0.0	0.3	0.0	0.0		2.3	0.0	0.0	0.5	0.1	34.6	100	62.5	5,286
Muzaffargarh	Alipur	0.3	26.4	9.0	0.0	1.4	0.0	1.3		1.3	1.7	0.2	0.5	0.0	58.1	100	38.2	3,700
Muzaffargarh	Jatoi	1.1	24.9	5.1	0.0	0.0	0.0	0.1		0.0	0.6	0.0	0.6	0.3	67.4	100	31.2	3,555
Muzaffargarh	Kot Addu	0.6	44.2	11.5	0.0	0.0	0.0	1.3		0.9	0.6	0.1	1.1	0.0	39.8	100	57.5	8,094
Muzaffargarh	Muzaffargarh	6.0	24.1	14.9	0.0	0.1	0.2	0.0		1.2	0.4	0.0	1.2	0.0	52.0	100	45.2	12,878
Rajanpur	Jampur	10.1	16.1	1.6	0.0	0.5	1.3	0.1		0.1	0.1	0.0	1.0	0.1	69.2	100	29.6	4,157

Rajanpur	Rajanpur	4.9	22.2	2.4	0.0	0.7	7.3	2.8		10.0	0.0	0.0	0.0	0.0	49.8	100	40.3	3,160
Rajanpur	Rojhan	0.5	12.1	7.4	0.0	1.4	4.7	2.7		2.6	0.4	0.0	0.4	0.6	67.3	100	28.8	1,300
Faisalabad	Chak Jhumra Town	0.9	90.1	0.2	0.0	0.0	0.0	0.0		0.3	0.0	0.0	0.0	0.1	8.4	100	91.2	2,066
Faisalabad	Iqbal Town	61.0	34.9	0.1	0.0	0.1	0.0	0.1		0.0	0.0	0.0	0.5	0.4	2.9	100	96.2	6,744
Faisalabad	Jinnah Town	54.0	41.2	0.1	0.0	0.0	0.0	0.0		1.0	0.0	0.0	2.0	0.4	1.3	100	95.3	6,211
Faisalabad	Lyallpur Town	46.8	49.5	0.2	0.0	0.0	0.0	0.0		0.6	0.0	0.0	1.2	0.0	1.8	100	96.5	5,331
Faisalabad	Madina Town	55.2	37.8	0.1	0.0	0.2	0.0	0.0		0.0	0.0	0.0	2.5	1.0	3.2	100	93.3	6,876
Faisalabad	Jaranwala Town	1.9	80.5	0.0	0.0	0.2	0.0	0.0		0.1	0.0	0.0	1.0	0.0	16.3	100	82.5	8,390
Faisalabad	Sammundri Town	1.3	90.1	1.6	0.0	0.0	0.0	0.1		0.1	0.0	0.0	1.0	0.1	5.7	100	93.1	3,843
Faisalabad	Tandlianwala Town	2.2	45.1	5.0	0.0	0.0	0.0	0.0		1.5	0.0	0.0	0.3	0.0	45.9	100	52.3	4,774
Chiniot	Chiniot	3.0	47.6	0.8	0.0	0.1	0.0	0.0		1.7	0.0	0.0	6.8	0.1	40.0	100	51.4	3,407
Chiniot	Bhowana	0.2	40.3	0.5	0.0	0.1	0.0	0.0		1.4	0.0	0.0	0.0	0.0	57.5	100	41.1	2,153
Chiniot	Lalian	0.0	46.1	0.5	0.0	0.0	0.0	0.0		1.8	0.0	0.0	0.0	0.0	51.6	100	46.6	2,803
Jhang	Ahmadpur Sial	2.2	38.6	0.8	0.0	0.0	0.0	0.0		0.0	0.0	0.0	6.2	0.0	52.2	100	41.6	2,011
Jhang	18 - Hazari	0.1	58.9	0.0	0.0	0.0	0.3	0.0		0.0	0.0	0.0	2.1	0.0	38.7	100	59.2	2,462
Jhang	Jhang	7.0	36.8	0.2	0.0	0.0	0.2	0.0		0.3	0.0	0.1	11.1	0.0	44.3	100	44.2	9,492
Jhang	Shorkot	4.1	46.8	0.4	0.0	1.3	0.0	0.4		0.3	0.0	0.0	4.0	0.0	42.8	100	53.0	2,936
Toba Tek Singh	Gojra	4.0	86.1	0.5	0.1	0.0	0.0	0.0		0.0	0.0	0.0	0.6	0.6	8.2	100	90.6	3,961
Toba Tek Singh	Kamalia	11.4	54.8	7.0	0.0	0.0	0.3	0.0		0.0	0.0	0.0	0.5	0.0	26.0	100	73.5	3,412
Toba Tek Singh	Toba Tek Singh	6.9	54.3	28.7	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.1	0.5	9.5	100	89.9	5,474
Lahore	Cantonment	92.5	3.8	0.0	0.0	0.0	0.0	0.3		2.6	0.0	0.0	0.0	0.9	0.0	100	96.5	3,550
Gujranwala	Aroop Town	42.9	55.4	0.2	0.1	0.0	0.0	0.0		0.2	0.0	0.0	0.0	0.7	0.6	100	98.6	5,015
Gujranwala	Khialli Shahpur Town	18.7	79.0	0.0	0.0	0.1	0.0	0.0		0.0	0.0	0.0	0.0	0.8	1.4	100	97.8	5,338
Gujranwala	Nandipur Town	34.7	62.8	0.0	0.0	0.0	0.0	0.0		0.8	0.0	0.0	0.0	0.8	1.0	100	97.5	3,693
Gujranwala	Qila Dedar Singh Town	32.9	63.7	0.0	0.0	0.1	0.0	0.0		1.7	0.0	0.0	0.0	0.4	1.2	100	96.7	4,580
Gujranwala	Naushera Virkan Town	2.9	90.3	0.0	0.0	0.0	0.0	0.0		0.3	0.0	0.0	0.1	0.6	5.9	100	93.2	3,284
Gujranwala	Kamoke Town	0.9	93.6	0.2	0.0	0.0	0.0	0.0		1.7	0.0	0.0	1.2	0.2	2.4	100	94.6	3,154
Gujranwala	Wazirabad Town	7.2	89.0	0.2	0.0	0.0	0.0	0.0		0.1	0.0	0.1	0.4	0.9	2.1	100	96.4	4,892
Gujrat	Gujrat	2.8	82.3	2.0	0.2	0.1	0.2	0.0		0.0	0.0	0.1	0.3	0.0	12.0	100	87.6	8,931
Gujrat	Kharian	0.3	85.8	0.4	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	13.5	100	86.5	6,051
Gujrat	Sarai Alamgir	0.3	82.8	0.7	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.2	0.0	16.0	100	83.8	1,558
Hafizabad	Hafizabad	11.3	72.4	0.6	0.0	0.1	0.0	0.0		0.4	0.0	0.7	0.4	0.0	14.2	100	84.4	3,662
Hafizabad	Pindi Bhattian	1.1	57.1	0.1	0.0	0.1	0.0	0.0		0.0	0.0	3.5	0.7	0.0	37.3	100	58.5	2,872
M. Bahauddin	Malakwal	2.1	65.4	0.8	0.0	0.0	0.0	0.0		0.7	0.0	0.0	0.0	0.0	31.0	100	68.3	2,206
M. Bahauddin	Mandi Bahauddin	2.5	78.6	0.8	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.2	0.6	17.3	100	81.9	3,503
M. Bahauddin	Phalia	0.0	70.8	0.3	0.0	0.2	0.0	0.0		0.0	0.0	0.4	0.0	0.0	28.3	100	71.3	5,892

Narowal	Narowal	7.2	80.3	0.0	0.0	0.0	0.0	0.0		0.2	0.0	0.0	0.7	0.2	11.5	100	87.5	3,503
Narowal	Shakargarh	1.6	77.5	0.2	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.2	0.1	20.4	100	79.3	4,632
Narowal	Zafarwal	0.4	79.5	0.0	0.3	1.2	0.4	0.0		0.0	0.0	0.0	0.0	0.1	18.1	100	81.8	1,799
Sialkot	Daska	4.7	90.7	0.7	0.1	0.2	0.1	0.0		0.4	0.0	0.0	0.2	0.2	2.7	100	96.4	4,590
Sialkot	Pasrur	0.6	83.7	0.3	0.0	0.0	0.0	0.0		0.1	0.0	0.0	0.7	0.0	14.6	100	84.6	5,170
Sialkot	Sambrial	2.1	90.4	0.0	0.0	0.0	0.0	0.0		0.8	0.0	0.2	0.4	0.3	5.8	100	92.5	2,286
Sialkot	Sialkot	19.8	76.0	0.2	0.0	0.0	0.0	0.0		0.3	0.0	0.0	0.3	0.2	3.3	100	95.9	8,866
Lahore	Aziz Bhatti Town	87.0	11.5	0.0	0.0	0.0	0.0	0.1		1.0	0.0	0.0	0.1	0.1	0.3	100	98.6	4,068
Lahore	Data Ganj Bakhsh Town	97.9	2.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100	100.0	5,839
Lahore	Gulberg Town	93.3	6.7	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	100	100.0	2,689
Lahore	Iqbal Town	65.1	29.6	0.0	0.0	0.0	0.0	1.1		2.0	0.1	0.0	0.1	0.1	1.8	100	95.8	11,260
Lahore	Nishtar Town	62.7	33.7	0.2	0.0	0.0	0.0	0.2		0.6	0.2	0.0	0.5	0.3	1.6	100	96.8	5,919
Lahore	Ravi Town	94.5	4.8	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.8	0.0	100	99.2	4,372
Lahore	Samanabad Town	99.9	0.1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.1	0.0	0.0	100	99.9	2,564
Lahore	Shalimar Town	99.3	0.5	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.2	0.0	100	99.8	5,279
Lahore	Wagha Town	55.0	32.6	0.0	0.0	0.0	0.0	0.0		1.9	0.0	0.0	2.3	0.1	8.1	100	87.5	3,025
Kasur	Chunian	0.8	71.4	0.0	0.0	0.0	0.0	0.3		0.1	0.0	0.0	2.5	0.2	24.7	100	72.5	4,615
Kasur	Kasur	12.4	52.8	0.6	0.0	0.1	0.3	0.3		1.1	0.5	0.1	3.7	0.0	28.2	100	66.4	6,908
Kasur	Kot Radha Kishan	3.4	76.4	1.9	0.4	0.1	0.0	0.5		4.4	0.0	0.0	1.2	0.0	11.7	100	82.7	1,797
Kasur	Pattoki	4.0	71.4	0.2	2.0	0.2	0.0	0.7		4.1	0.0	0.0	0.8	0.5	16.1	100	78.5	4,077
N. Sahib	Shahkot	2.1	86.0	0.6	0.0	0.2	0.0	0.0		0.4	0.0	0.0	0.1	0.1	10.6	100	88.9	1,601
N. Sahib	Sangla Hill	0.0	86.4	0.0	0.0	0.0	0.0	0.0		1.1	0.0	0.0	0.3	0.0	12.3	100	86.4	1,004
N. Sahib	Nankana Sahib	6.6	64.1	0.0	0.0	0.2	0.0	0.0		1.3	0.0	0.0	0.0	0.2	27.6	100	70.9	4,476
Sheikhupura	Ferozewala	24.7	50.9	1.3	0.4	0.0	0.0	0.1		13.4	0.0	0.0	0.3	0.2	8.6	100	77.4	2,884
Sheikhupura	Muridke	19.1	72.2	0.2	0.0	0.0	0.0	0.0		0.0	0.0	0.0	1.0	0.3	7.1	100	91.6	2,981
N. Sahib	Safdarabad	0.2	87.3	0.0	0.0	0.0	0.0	0.0		3.2	0.0	0.0	0.4	0.3	8.6	100	87.5	1,336
Sheikhupura	Sharaqpur	23.2	67.2	1.4	0.0	0.0	0.0	0.0		1.6	0.0	0.0	0.7	0.3	5.7	100	91.8	1,825
Sheikhupura	Sheikhupura	13.9	72.9	0.3	0.0	0.0	0.0	0.0		4.3	0.0	0.0	0.3	0.3	8.1	100	87.0	7,733
Multan	Bosan Town	47.1	4.7	17.1	1.0	0.8	0.0	0.0		12.6	0.3	0.2	0.0	0.0	16.3	100	70.6	4,485
Multan	Mousa Pak (Shaheed) Town	29.0	4.7	7.3	0.0	0.0	0.0	0.0		44.7	0.1	0.0	0.5	0.5	13.1	100	41.0	4,723
Multan	Shah Rukn-E-Alam Town	47.1	3.0	5.8	0.0	0.0	0.0	0.0		31.8	0.0	0.0	0.4	0.1	11.8	100	55.9	5,565
Multan	Sher Shah Town	37.6	2.6	4.5	0.0	0.7	0.0	0.0		37.3	0.6	0.0	0.2	0.8	15.8	100	45.4	4,554
Multan	Jalalpur Pirwala Town	4.0	3.3	9.1	0.0	3.9	2.8	0.4		26.0	1.1	0.0	0.4	0.0	49.0	100	23.4	3,316
Multan	Shujabad Town	6.7	5.3	8.6	0.0	0.0	0.1	0.0		34.9	0.0	0.0	0.4	0.0	44.0	100	20.7	3,820
Khanewal	Jahanian	15.1	26.5	22.5	0.0	0.0	0.7	0.0		23.9	0.0	0.0	0.0	0.0	11.2	100	64.9	1,911
Khanewal	Kabirwala	6.2	22.1	16.8	0.0	0.8	2.3	0.0		13.5	0.0	0.0	0.1	0.0	38.2	100	48.2	5,348

Khanewal	Khanewal	30.1	17.4	10.9	0.1	6.8	5.7	0.2		12.0	0.0	0.3	0.3	0.0	16.4	100	71.1	4,120
Khanewal	Mian Channu	14.7	26.1	27.4	0.0	0.3	0.3	0.0		18.0	0.0	0.0	0.6	0.0	12.6	100	68.8	4,855
Lodhran	Dunyapur	8.2	20.9	47.1	0.0	0.0	0.3	0.0		0.4	0.0	0.0	0.4	0.0	22.8	100	76.4	2,515
Lodhran	Karor Pacca	10.5	20.9	24.7	0.0	0.3	0.0	0.0		1.7	0.0	0.0	0.1	0.3	41.3	100	56.5	3,132
Lodhran	Lodhran	17.6	13.4	26.4	0.0	1.1	2.2	1.0		3.5	0.0	0.0	0.1	0.0	34.6	100	61.9	3,813
Vehari	Burewala	17.1	51.1	4.7	0.0	0.0	0.3	0.6		10.7	0.0	0.0	0.0	0.0	15.4	100	73.8	5,790
Vehari	Mailsi	13.7	33.5	16.6	0.0	0.2	3.7	0.2		0.0	0.1	0.0	0.2	0.0	31.8	100	67.9	6,009
Vehari	Vehari	24.1	27.3	8.9	0.0	0.1	0.0	0.7		9.0	0.2	0.0	0.0	0.5	29.1	100	61.1	4,891
Rawalpindi	Gujar Khan Town	1.0	53.6	25.4	0.0	0.0	0.6	0.0		1.5	0.0	0.0	0.0	0.3	17.6	100	80.6	3,269
Rawalpindi	Kahuta Town	0.1	36.9	30.1	0.2	0.4	0.5	0.0		11.2	0.0	0.0	0.0	0.0	20.7	100	68.1	1,203
Rawalpindi	Kallar Sayedan Town	0.0	49.7	20.2	0.0	0.7	0.1	0.0		8.6	0.0	0.0	0.2	0.3	20.2	100	70.7	1,414
Rawalpindi	Kotli Sattian Town	0.0	24.9	32.3	0.0	0.8	2.0	0.0		16.2	0.0	0.0	0.2	0.0	23.6	100	60.0	838
Rawalpindi	Murree Town	1.0	25.7	37.1	0.0	3.5	8.5	0.4		11.8	0.4	0.0	0.2	0.0	11.6	100	76.1	1,159
Rawalpindi	Taxila Town	44.1	31.5	16.2	0.0	0.5	0.1	0.0		5.1	0.0	0.1	0.1	0.0	2.3	100	92.4	3,307
Rawalpindi	Potohar Town	25.7	49.5	3.6	0.0	0.1	0.0	0.0		7.7	0.0	0.0	0.1	0.0	13.3	100	78.9	5,035
Rawalpindi	Rawal Town	64.0	24.8	1.8	0.7	1.0	0.9	0.0		6.3	0.0	0.0	0.6	0.0	0.0	100	93.1	8,942
Attock	Attock	12.5	40.7	20.4	0.0	0.1	7.6	0.0		4.6	0.3	1.8	0.0	0.0	12.0	100	81.3	1,961
Attock	Fateh Jang	0.5	42.6	19.4	0.5	0.1	0.5	0.0		7.0	0.0	0.1	0.0	0.3	29.1	100	63.6	1,801
Attock	Hazro	0.8	62.2	18.2	0.0	0.0	4.8	0.0		5.5	0.0	1.5	0.0	0.0	6.9	100	86.1	1,812
Attock	Hassanabdal	15.5	52.8	13.4	0.0	0.0	1.2	1.0		5.7	0.3	0.8	0.3	0.0	9.1	100	83.8	997
Attock	Jand	0.0	31.6	34.1	0.0	0.0	15.7	0.0		2.2	0.0	0.4	0.0	0.0	16.1	100	81.3	1,398
Attock	Pindi Gheb	0.7	49.4	18.5	0.0	0.2	6.3	0.0		3.7	0.5	0.7	0.0	0.0	19.9	100	75.2	1,243
Chakwal	Chakwal	1.8	74.5	2.8	0.0	0.2	0.0	0.0		0.5	0.2	0.0	0.4	0.0	19.6	100	79.3	2,957
Chakwal	Choa Saidu Shah	0.0	25.4	52.8	0.0	0.0	0.0	0.0		0.3	0.0	0.0	0.0	0.0	21.6	100	78.2	749
Chakwal	Kalar Kahar	0.1	34.0	49.6	0.0	0.0	0.0	0.0		0.9	0.0	0.0	0.0	0.0	15.4	100	83.7	1,126
Chakwal	Talagang	0.0	78.4	0.6	0.0	0.0	0.0	0.0		0.6	0.0	0.0	0.3	0.0	20.1	100	79.0	3,079
Jhelum	Dina	1.1	67.1	15.8	0.0	0.0	4.6	0.0		0.6	0.0	0.0	0.0	0.0	10.8	100	88.6	1,416
Jhelum	Jhelum	6.2	78.1	2.5	0.3	0.0	0.0	0.0		0.4	0.0	0.0	0.5	0.0	12.1	100	87.1	3,003
Jhelum	Pind Dadan Khan	0.9	54.5	18.3	0.0	0.0	0.0	0.0		1.5	0.0	0.0	0.4	0.0	24.4	100	73.7	1,927
Jhelum	Sohawa	0.1	44.5	29.5	0.4	0.0	0.0	0.0		0.4	0.0	0.0	0.1	0.0	25.0	100	74.6	1,236
Sahiwal	Chichawatni	21.5	28.7	10.6	0.0	0.3	4.9	0.0		6.2	0.6	0.0	1.9	0.1	25.2	100	66.0	5,941
Sahiwal	Sahiwal	33.6	32.4	2.7	0.3	0.2	3.0	0.2		1.0	0.2	0.0	0.0	0.0	26.4	100	72.4	8,338
Okara	Depalpur	9.1	44.4	7.5	0.0	0.0	0.2	0.0		3.3	0.0	0.0	0.0	0.4	35.1	100	61.1	9,998
Okara	Okara	19.9	36.1	0.4	0.6	0.0	0.8	0.0		5.0	0.3	0.0	0.1	0.0	37.0	100	57.6	7,606
Okara	Renala Khurd	3.3	39.7	0.2	0.0	0.0	0.0	0.0		7.3	0.0	0.0	0.0	0.1	49.5	100	43.2	5,348
Pakpattan	Arifwala	12.4	34.8	8.2	0.0	0.0	5.6	0.0		5.7	0.0	0.0	0.3	0.0	33.0	100	61.0	5,089

Pakpattan	Pakpattan	11.7	41.1	4.1	0.0	1.4	1.5	0.0		0.6	0.2	0.0	0.1	0.2	39.1	100	59.8	5,700
Sargodha	Bhalwal	0.8	71.0	1.5	0.0	0.2	0.0	0.0		0.7	0.1	0.0	0.0	0.0	25.7	100	73.4	3,975
Sargodha	Kot Momin	0.5	54.5	3.2	0.0	0.0	0.0	0.0		0.4	0.0	0.2	0.0	0.0	41.1	100	58.2	2,487
Sargodha	Sahiwal	0.1	63.1	2.8	0.0	0.0	0.0	0.0		1.1	0.0	0.0	0.0	0.2	32.7	100	66.0	1,938
Sargodha	Sargodha	29.2	53.1	1.2	0.0	0.2	0.2	0.0		0.1	0.0	0.0	0.1	0.0	15.9	100	83.9	7,156
Sargodha	Shahpur	4.3	61.1	0.1	0.3	0.0	0.0	0.0		0.7	0.7	0.0	0.5	0.0	32.2	100	65.9	2,025
Sargodha	Sillanwali	0.1	75.1	0.3	0.0	0.6	0.4	0.0		0.5	0.0	0.0	0.8	0.0	22.3	100	76.4	1,967
Bhakkar	Bhakkar	9.8	15.1	45.5	0.0	0.1	0.3	0.0		3.2	0.3	0.0	0.1	0.0	25.8	100	70.6	3,536
Bhakkar	Darya Khan	2.0	25.3	33.9	0.0	0.1	0.4	0.0		5.8	0.0	0.0	0.4	0.0	32.1	100	61.8	2,057
Bhakkar	Kalur Kot	4.6	11.1	53.0	0.0	0.0	0.3	0.0		5.2	0.0	0.2	0.2	0.0	25.5	100	69.0	1,508
Bhakkar	Mankera	0.0	7.5	40.1	0.0	0.1	0.3	0.0		1.5	0.2	0.0	0.1	0.2	50.2	100	48.0	1,409
Khushab	Khushab	5.6	33.8	35.1	0.0	0.5	3.2	0.0		0.6	0.1	0.1	1.5	0.0	19.4	100	78.3	4,245
Khushab	Nurpur Thal	0.2	13.5	41.2	0.0	0.1	0.0	0.0		0.5	0.0	0.0	0.4	0.0	44.2	100	54.9	1,201
Khushab	Qaidabad	2.7	2.4	39.3	0.0	19.7	0.0	0.0		0.0	0.0	0.0	0.0	0.0	35.9	100	64.1	1,843
Mianwali	Isa Khel	3.6	14.1	53.4	0.1	2.7	0.6	0.2		0.0	0.1	0.1	0.0	0.0	25.3	100	74.6	1,717
Mianwali	Mianwali	16.9	16.4	31.8	0.0	14.3	0.7	0.1		0.3	0.0	0.2	0.0	0.0	19.5	100	80.0	4,050
Mianwali	Piplan	15.2	22.1	10.3	0.0	33.3	1.9	0.0		0.4	0.6	0.0	1.2	0.0	15.0	100	82.8	2,216
Punjab		20.0	42.3	8.3	0.1	0.6	0.7	0.1		3.9	0.2	0.1	0.8	0.2	22.8	100	72.1	597,462

Table 17 - Place of hand washing in household

District	Tehsil	Percent distribution of households where place for hand washing was observed, where					
		Water and Soap are available	Water is available, soap is not available	Water is not available, soap is available	Water and soap are not available	Missing	Total
Bahawalpur	Ahmadpur East	39.8	49.6	2.4	8.0	0.2	100
Bahawalpur	Bahawalpur City	75.0	21.1	0.0	3.8	0.2	100
Bahawalpur	Bahawalpur Sadar	61.6	34.6	0.2	3.6	0.0	100
Bahawalpur	Hasilpur	62.4	34.1	0.1	3.5	0.0	100
Bahawalpur	Khairpur Tamewali	41.0	54.7	0.6	3.1	0.6	100
Bahawalpur	Yazman	58.4	38.0	0.2	3.4	0.0	100
Bahawalnagar	Bahawalnagar	74.1	6.9	5.0	13.5	0.5	100
Bahawalnagar	Chishtian	82.1	6.2	4.3	7.3	0.0	100
Bahawalnagar	Fort Abbas	82.7	1.4	13.2	2.7	0.0	100
Bahawalnagar	Haroonabad	83.0	4.1	6.3	6.6	0.0	100
Bahawalnagar	Minchinabad	65.2	8.7	7.5	18.7	0.0	100
Rahim Yar Khan	Khanpur	63.8	34.8	0.6	0.5	0.3	100
Rahim Yar Khan	Liaquatpur	50.4	45.1	0.9	3.4	0.3	100
Rahim Yar Khan	Rahim Yar Khan	53.8	40.9	0.4	4.6	0.3	100
Rahim Yar Khan	Sadiqabad	50.2	38.9	2.5	7.8	0.7	100
Dera Ghazi Khan	Dera Ghazi Khan	40.4	54.8	1.0	3.4	0.4	100
Dera Ghazi Khan	Taunsa	21.3	70.9	0.5	7.3	0.0	100
Layyah	Chobara	51.4	47.2	0.3	1.1	0.0	100
Layyah	Karor	59.6	39.6	0.3	0.3	0.2	100
Layyah	Layyah	68.6	31.2	0.1	0.1	0.0	100
Muzaffargarh	Alipur	54.6	43.8	0.2	1.5	0.0	100
Muzaffargarh	Jatoi	44.2	53.3	0.9	1.5	0.1	100
Muzaffargarh	Kot Addu	57.5	42.0	0.2	0.3	0.0	100
Muzaffargarh	Muzaffargarh	61.6	37.6	0.3	0.5	0.1	100
Rajanpur	Jampur	60.4	25.0	1.7	12.9	0.0	100
Rajanpur	Rajanpur	85.6	5.2	1.4	7.8	0.0	100
Rajanpur	Rojhan	63.6	29.2	1.5	5.8	0.0	100
Faisalabad	Chak Jhumra Town	82.8	16.5	0.4	0.0	0.3	100
Faisalabad	Iqbal Town	89.2	8.8	1.6	0.4	0.0	100

Faisalabad	Jinnah Town	95.2	4.0	0.3	0.0	0.5	100
Faisalabad	Lyallpur Town	90.0	8.5	1.1	0.4	0.0	100
Faisalabad	Madina Town	94.2	4.7	0.5	0.4	0.3	100
Faisalabad	Jaranwala Town	86.4	12.9	0.0	0.8	0.0	100
Faisalabad	Sammundri Town	86.2	12.7	0.8	0.3	0.0	100
Faisalabad	Tandlianwala Town	48.8	48.4	0.3	2.4	0.0	100
Chiniot	Chiniot	73.3	21.5	2.8	2.1	0.3	100
Chiniot	Bhowana	52.0	44.6	1.6	1.7	0.0	100
Chiniot	Lalian	59.0	39.3	0.1	1.5	0.1	100
Jhang	Ahmadpur Sial	61.7	37.7	0.0	0.3	0.3	100
Jhang	18 - Hazari	65.6	32.4	0.0	1.9	0.1	100
Jhang	Jhang	48.5	47.7	0.2	3.6	0.1	100
Jhang	Shorkot	63.1	34.0	0.5	2.1	0.3	100
Toba Tek Singh	Gojra	85.5	13.1	0.3	1.1	0.0	100
Toba Tek Singh	Kamalia	68.7	24.4	1.7	4.9	0.4	100
Toba Tek Singh	Toba Tek Singh	77.5	18.4	0.3	3.2	0.6	100
Lahore	Cantonment	91.4	7.9	0.0	0.2	0.5	100
Gujranwala	Aroop Town	96.9	2.4	0.5	0.1	0.2	100
Gujranwala	Khialli Shahpur Town	92.9	6.3	0.3	0.4	0.0	100
Gujranwala	Nandipur Town	93.3	5.1	0.2	0.6	0.7	100
Gujranwala	Qila Dedar Singh Town	92.9	5.4	1.0	0.1	0.7	100
Gujranwala	Naushera Virkan Town	90.1	9.1	0.3	0.5	0.0	100
Gujranwala	Kamoke Town	92.0	7.3	0.8	0.0	0.0	100
Gujranwala	Wazirabad Town	97.4	1.8	0.6	0.1	0.1	100
Gujrat	Gujrat	97.1	1.9	0.6	0.4	0.0	100
Gujrat	Kharian	95.9	3.8	0.2	0.1	0.0	100
Gujrat	Sarai Alamgir	94.0	5.0	0.6	0.2	0.3	100
Hafizabad	Hafizabad	94.9	2.0	2.3	0.7	0.0	100
Hafizabad	Pindi Bhattian	93.5	3.4	1.8	1.2	0.2	100
Mandi Bahauddin	Malakwal	79.7	19.4	0.5	0.4	0.0	100
Mandi Bahauddin	Mandi Bahauddin	85.7	10.5	2.6	1.1	0.2	100
Mandi Bahauddin	Phalia	81.1	17.7	0.7	0.5	0.0	100
Narowal	Narowal	85.4	11.9	1.6	0.7	0.4	100
Narowal	Shakargarh	94.7	4.2	1.1	0.0	0.1	100
Narowal	Zafarwal	88.3	9.7	0.3	1.4	0.4	100
Sialkot	Daska	90.7	3.4	5.8	0.2	0.0	100

Sialkot	Pasrur	85.1	12.3	1.2	0.9	0.6	100
Sialkot	Sambrial	91.7	7.1	1.0	0.1	0.2	100
Sialkot	Sialkot	95.8	3.5	0.5	0.2	0.1	100
Lahore	Aziz Bhatti Town	95.5	3.7	0.3	0.5	0.0	100
Lahore	Data Ganj Bakhsh Town	97.0	1.6	1.0	0.2	0.3	100
Lahore	Gulberg Town	98.7	1.1	0.3	0.0	0.0	100
Lahore	Iqbal Town	90.6	5.0	2.4	1.9	0.1	100
Lahore	Nishtar Town	89.5	7.1	2.7	0.3	0.5	100
Lahore	Ravi Town	96.0	3.8	0.2	0.0	0.0	100
Lahore	Samanabad Town	98.9	1.0	0.0	0.1	0.0	100
Lahore	Shalimar Town	94.7	1.5	3.5	0.0	0.4	100
Lahore	Wagha Town	93.5	5.0	0.6	1.0	0.0	100
Kasur	Chunian	85.1	12.4	1.2	1.1	0.2	100
Kasur	Kasur	81.1	15.6	1.7	1.6	0.0	100
Kasur	Kot Radha Kishan	83.5	12.4	1.3	2.9	0.0	100
Kasur	Pattoki	81.9	15.5	0.5	2.1	0.0	100
Nankana Sahib	Shahkot	85.0	13.8	0.4	0.7	0.1	100
Nankana Sahib	Sangla Hill	84.3	14.8	0.0	0.8	0.0	100
Nankana Sahib	Nankana Sahib	72.8	21.8	1.1	4.1	0.2	100
Sheikhupura	Ferozewala	83.2	14.0	2.3	0.6	0.0	100
Sheikhupura	Muridke	82.3	15.6	1.3	0.9	0.0	100
Nankana Sahib	Safdarabad	88.5	9.3	0.6	1.4	0.3	100
Sheikhupura	Sharaqpur	92.8	1.4	4.5	1.3	0.0	100
Sheikhupura	Sheikhupura	88.3	8.7	0.5	2.5	0.0	100
Multan	Bosan Town	64.3	33.4	0.7	1.2	0.4	100
Multan	Mousa Pak (Shaheed) Town	66.5	30.2	0.4	2.9	0.0	100
Multan	Shah Rukn-E-Alam Town	69.3	28.4	0.1	1.7	0.6	100
Multan	Sher Shah Town	61.6	36.1	0.2	1.5	0.6	100
Multan	Jalalpur Pirwala Town	38.3	49.8	1.0	10.9	0.0	100
Multan	Shujabad Town	34.8	60.0	0.5	4.4	0.4	100
Khanewal	Jahanian	77.8	20.3	0.3	1.6	0.0	100
Khanewal	Kabirwala	59.4	39.0	0.1	1.4	0.1	100
Khanewal	Khanewal	70.1	25.1	0.9	3.2	0.8	100
Khanewal	Mian Channu	71.6	24.2	0.4	3.7	0.2	100
Lodhran	Dunyapur	60.6	37.3	1.8	0.0	0.4	100
Lodhran	Karor Pacca	54.3	42.8	2.2	0.2	0.6	100

Lodhran	Lodhran	58.2	40.0	1.6	0.2	0.0	100
Vehari	Burewala	89.7	6.0	0.5	3.5	0.3	100
Vehari	Mailsi	50.2	39.9	0.9	8.9	0.2	100
Vehari	Vehari	79.3	19.6	0.2	1.0	0.0	100
Rawalpindi	Gujar Khan Town	88.2	9.2	1.1	1.3	0.2	100
Rawalpindi	Kahuta Town	89.4	7.9	0.4	2.3	0.0	100
Rawalpindi	Kallar Sayedan Town	89.4	6.8	0.5	3.0	0.3	100
Rawalpindi	Kotli Sattian Town	81.1	7.5	1.3	10.1	0.0	100
Rawalpindi	Murree Town	72.1	16.8	1.7	9.4	0.0	100
Rawalpindi	Taxila Town	94.3	3.6	0.7	1.2	0.2	100
Rawalpindi	Potohar Town	94.9	1.3	1.2	2.3	0.4	100
Rawalpindi	Rawal Town	96.5	0.8	1.4	0.9	0.3	100
Attock	Attock	67.6	19.8	0.6	11.9	0.0	100
Attock	Fateh Jang	64.2	18.8	0.8	16.2	0.0	100
Attock	Hazro	63.4	24.9	1.7	10.0	0.0	100
Attock	Hassanabdal	71.8	17.5	2.7	7.9	0.1	100
Attock	Jand	56.9	20.4	0.4	22.3	0.0	100
Attock	Pindi Gheb	61.6	17.0	1.8	19.7	0.0	100
Chakwal	Chakwal	66.7	20.1	3.0	10.3	0.0	100
Chakwal	Choa Saiden Shah	76.1	16.5	0.2	7.2	0.0	100
Chakwal	Kalar Kahar	72.6	17.9	1.1	8.2	0.2	100
Chakwal	Talagang	55.3	34.2	0.5	9.6	0.3	100
Jhelum	Dina	85.2	12.4	1.0	1.2	0.2	100
Jhelum	Jhelum	91.1	8.5	0.2	0.2	0.0	100
Jhelum	Pind Dadan Khan	76.5	21.5	0.5	1.6	0.0	100
Jhelum	Sohawa	83.0	15.1	1.1	0.7	0.1	100
Sahiwal	Chichawatni	84.5	11.3	2.4	1.7	0.2	100
Sahiwal	Sahiwal	91.2	7.0	0.4	1.4	0.0	100
Okara	Depalpur	82.9	13.1	1.3	2.5	0.2	100
Okara	Okara	84.9	13.5	0.6	0.9	0.1	100
Okara	Renala Khurd	91.9	7.2	0.6	0.4	0.0	100
Pakpattan	Arifwala	85.2	8.8	3.5	2.6	0.0	100
Pakpattan	Pakpattan	75.8	11.3	3.2	9.7	0.0	100
Sargodha	Bhalwal	73.5	26.5	0.0	0.0	0.0	100
Sargodha	Kot Momin	65.4	33.3	0.0	0.9	0.5	100
Sargodha	Sahiwal	91.8	7.2	0.0	0.8	0.2	100

Sargodha	Sargodha	87.3	11.5	0.1	1.0	0.1	100
Sargodha	Shahpur	86.9	11.9	0.6	0.5	0.0	100
Sargodha	Sillanwali	91.3	8.4	0.3	0.0	0.0	100
Bhakkar	Bhakkar	64.6	34.3	0.4	0.6	0.2	100
Bhakkar	Darya Khan	62.0	36.2	1.5	0.4	0.0	100
Bhakkar	Kalur Kot	67.1	32.6	0.0	0.3	0.0	100
Bhakkar	Mankera	40.3	58.5	0.0	0.9	0.4	100
Khushab	Khushab	69.7	22.4	2.5	5.0	0.5	100
Khushab	Nurpur Thal	46.8	49.7	1.0	2.5	0.0	100
Khushab	Qaidabad	79.4	18.4	0.2	2.1	0.0	100
Mianwali	Isa Khel	74.6	23.1	0.0	2.3	0.0	100
Mianwali	Mianwali	78.0	18.8	1.0	2.3	0.0	100
Mianwali	Piplan	79.0	19.5	0.2	1.3	0.0	100
Punjab		76.8	19.4	1.1	2.5	0.2	100



Government of Punjab