

## **4. Housing, Water supply & Sanitation**

### **4.1 Introduction**

In Pakistan most of the households do not have access to adequate potable or shallow water. Similarly many households also lack toilets and adequate sanitation facilities. Sanitation is one of the basic necessities, which contributes to human dignity and quality of life and is an essential pre-requisite for success. The Government of Pakistan, while recognizing that access to safe drinking water is the basic human right of every citizen and that it is the responsibility of the state to ensure its provision to all citizens, Government is committed to provide adequate quantity of safe drinking water to the entire population at an affordable cost and in an equitable, efficient and sustainable manner.

In order to fulfill this commitment of the Government, the Ministry of Environment, in line with provisions of the National Environment Policy has formulated the National Drinking Water Policy 2009 through a countrywide consultation process with the aim to increase public awareness about water safety, safe hygiene practices and water conservation.<sup>1</sup> In this chapter, information is presented on Housing, Fuel used for Lighting and cooking, & Main Source of drinking Water and Sanitation.

#### **4.1.1 Sanitation**

The term sanitation, however, extends to cover cleanliness, hygiene, proper collection of liquid and solid wastes and their environmentally sound disposal. In this endeavour, the needs for waste reduction, reuse, recycle and change in the attitude towards consumption and production patterns are other imperatives for achieving goals of sustainable environment. The main goal of National Sanitation Policy is to provide adequate coverage for improving the quality of life of the people of Pakistan and to provide physical environment necessary for healthy life<sup>2</sup>.

### **4.2 Housing**

A house is a building that functions as a home for humans, including simple dwellings ranging from rudimentary huts of nomadic tribes and complex structures composed of many systems. Occupancy status wise houses are of different types like own, rent, free and subsidized rent.

Overall in Pakistan the number of household that own dwelling units remains stable at 86 percent during the period 2010-11 to 2012-13. The percentage is higher in rural areas, 91 percent as compared to 75 percent in urban areas. Provincial comparison shows that percentage of household that own their dwelling units is highest in

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<sup>1</sup> National Drinking Water Policy 2009, Ministry of Environment, Government of Pakistan

<sup>2</sup> National Sanitation Policy, Government of the Islamic Republic of Pakistan , Ministry of Environment

Balochistan with 91 percent in 2012-13 as compared to 89 percent in 2010-11 followed by Punjab & KPK with 87 percent as compared to 86 percent & 87 percent respectively in 2010-11, whereas Sindh with 82 percent in 2012-13 as compared to 84 percent in 2010-11 have the lowest percentage of household who live in own dwelling units (Table 4.1). In Islamabad (Federal Capital) 41 percent households live in rented or subsidized rented units in 2012-13 as compared to 36 percent in 2010-11 and 51 percent of households have their own housing units in 2012-13 as compared to 55 percent in 2010-11. While comparing districts; D.G Khan with 96 percent, Tharparkar with 100 percent, Chitral with 99 percent and Awaran & Washuk with 100 percent are the districts where people predominantly live in their own housing units within their respective provinces. On the other hand, Rawalpindi with 70 percent, Mir Pur Khas with 64 percent, Peshawar with 74 percent, and Quetta with 70 percent are the bottom ranked districts within their respective provinces.

Table 4.2 shows percentage distribution of households for material used for roof. In overall Pakistan garter\iron with 37 percent is predominantly used as material for roof construction. This percentage is higher in rural areas, 43 percent as compared to 26 percent in urban areas. It is worth mentioning here that the category garter\iron & garter-bala in 2010-11 was included in the category “others”, but for the year 2012-13, keeping in view the importance of garter\iron it was covered under separate category. Therefore, a marked decrease is observed in the category “others”, which was mainly because of exclusion of garter\iron. Among districts Bahawalpur with 82 percent, Nowshero Feroze with 61 percent, Karak with 47 Percent and Sibbi with 48 percent are top ranked districts using garter\iron as material for roof construction within their respective provinces

In overall Pakistan 28 percent households used rcc\rbc as main material for roof construction. This percentage is higher in urban areas, 59 percent as compared to 12 percent in rural areas. In Islamabad (Federal Capital), 92 percent households used rcc\rbc for construction of roof. District wise comparison shows that Lahore and Karachi with 79 percent, Haripur and Swabi with 63 percent and Quetta with 34 percent are top ranked districts using rcc\rbc within their respective provinces.

The second most used material in construction of roof is wood\bamboo. Provincial comparison shows that there is a decline in the use of wood\bamboo as material used for construction of roof; Balochistan with 72 percent in 2012-13 as compared to 73 percent in 2010-11 followed by KPK with 42 percent as compared to 51 percent in 2010-11 and Punjab with 23 percent as compared to 31 percent in 2010-11 except Sindh which shows slight increase with 33 percent in 2012-13 as compared to 32 percent in 2010-11 (Table 4.2). While comparing districts; Rajanpur with 63 percent, Tharparkar with 80 percent, Tor Garh with 97 percent and Awaran, Kohlu & Barkhan with 99 percent are the top ranked districts within their respective provinces. Whereas Islamabad (Federal Capital) with 1 percent, Bahawalnagar with 2 percent Karachi with 0.61 percent, Abbottabad with 14 percent and Quetta with 26 percent are the bottom ranked districts within their respective provinces.

Table 4.3 shows percentage distribution of households for material used for the construction of walls. In overall Pakistan, burnt bricks\blocks have been used in 76 percent housing unit in 2012-13 as compared to 72 percent in 2010-11. This percentage is higher in urban areas, 96 percent as compared to 66 percent in rural areas. Provincial comparison shows that the use of burnt bricks\blocks is highest in Punjab with 87 percent in 2012-13 as compared to 83 Percent in 2010-11 followed by Sindh with 69 percent in 2012-13 as compared to 66 Percent in 2010-11, KPK with 57 percent in 2012-13 as compared to 54 Percent in 2010-11 and Balochistan at 28 percent in 2012-13 as compared to 23 percent in 2010-11. In Islamabad (Federal Capital) 99 percent households use burnt bricks\blocks as material for construction of walls. While comparing districts, Mandi Bahuddin and Lahore with 100 percent, Karachi with 99 percent, Swabi with 84 percent and Quetta with 77 percent are the top ranked districts using burnt bricks\blocks as material used for construction of walls in their respective provinces.

Housing units by number of rooms (Table 4.4) shows that majority of the households in Pakistan live in housing units with 2-4 rooms, however there is a marginal decline in housing units with 2-4 rooms ,68 percent in 2012-13 as compared to 69 percent in 2010-11 there is a slight increase in housing units with one room,26 percent in 2012-13 as compared to 25 percent in 2010-11 and houses with more than five rooms remain stable at 6 percent during the period 2010-11 and 2012-13.Similar pattern is prevalent while observing the provinces, Balochistan have the highest percentage of housing units with 2-4 rooms, 77 percent in 2012-13 as compared to 75 percent in 2010-11 followed by KPK with 73 percent which remained stable during the period 2012-13 and 2010-11 & Sindh with 67 percent in 2012-13 as compared to 71 percent in 2010-11 while Punjab with 68 percent in 2012-13 as compared to 67 percent in 2010-11.

### **4.3 Electricity & Gas**

In PSLM survey information is collected from households about the major source used for lighting. For this purpose following categories are included, electricity, gas\kerosene oil, candles and others. Fire wood is included in the other category.

Table 4.5 shows that 93 percent of households in 2012-13 as compared to 91 percent in 2010-11 were using electricity as a source for lighting. This percentage is higher in urban areas, 98 percent as compared to 90 percent in rural areas. Provincial comparison shows that use of electricity as a source of lighting is highest in Punjab with 95 percent in 2012-13 as compared to 93 percent in 2010-11 followed by KPK with 94 percent in 2012-13 as compared to 93 Percent in 2010-11, Sindh with 91 percent in 2012-13 as compared to 90 Percent in 2010-11 and Balochistan with 79 percent in 2012-13 as compared to 72 percent in 2010-11. In Islamabad (Federal Capital), 98 percent households are using electricity as a source of lighting. While comparing districts, Narowal and Mandi Bahuddin with 100 percent, Shahdadkot with 99 percent, Bannu with 100 percent & Mastung and Quetta with 100 percent are the top ranked districts within their respective provinces. Whereas, districts Rajanpur with 73 percent , Tharparkar with 48 percent , Tor Garh with 42 percent and Dera Bugti with 28 percent have the lowest usage within their respective provinces.

Similarly in PSLM Survey information is collected from households about the major fuel used for cooking. Different sources of fuel used for cooking have been discussed like electricity, gas\kerosene oil, wood\charcoal and others (dung cake and crop residue are included in the others category).

Table 4.6 indicates that the vast majority of households, 62 percent are using wood\charcoal or other as fuel for cooking in overall Pakistan. This percentage is higher in rural areas, 86 percent as compared to only 16 percent in urban areas. Provincial level comparison shows that 69 percent household in Balochistan in 2012-13 as compared to 66 percent in 2010-11 followed by 67 percent in KPK in 2012-13 as compared to 76 Percent in 2010-11, 43 percent in Sindh in 2012-13 as compared to 45 Percent in 2010-11 and 40 percent households in Punjab in 2012-13 as compared to 41 percent in 2010-11 are using wood\charcoal as fuel for cooking. At national level 38 percent of households are using gas\kerosene oil as fuel for cooking as compared to 35 percent in 2010-11. Use of gas\kerosene oil as fuel for cooking is higher in urban areas, 84 percent as compared to 14 percent in rural areas. Provincial level comparison shows that 53 percent household in Sindh in 2012-13 as compared to 51 percent in 2010-11 followed by 36 percent in Punjab in 2012-13 as compared to 33 Percent in 2010-11, 26 percent in KPK in 2012-13 as compared to 22 Percent in 2010-11 and 23 percent households in Balochistan in 2012-13 as compared to 27 percent in 2010-11 are using gas\kerosene oil as fuel for cooking. In Islamabad (Federal Capital) 80 percent household are using gas\kerosene oil as a fuel for cooking. While comparing districts, Lahore with 90 percent, Karachi with 98 percent & Peshawar with 78 percent and Quetta with 95 percent are the top ranked districts within their respective provinces.

#### **4.4 Sources of Drinking Water**

In PSLM Survey, questions are asked to know the main source of drinking water. According to this information is collected about tap water, motorised pumping, hand pump, dug well and others. The category others include tanker, mineral water, filtration plant and sea\river\pond\stream. Tap water is a delivery system where the water is delivered through a network of pipes and the water is treated before it is supplied. In urban areas generally, water comes in to house through pipes and is stored in tanks, built in the house. Then the water for the use of household is lifted to small tanks built at the top of the house, such system should be recorded as tap water supply. Hand Pump is a pump operated manually to draw water from a bored hole. Sometimes hand pump and motor are operated at the same hole. Dug well is of two types opened and closed well closed well is a dug well with a covering and opened well is a dug well without covering.

In overall Pakistan 30 percent of households are using tap water as main source of drinking water in 2012-13 as compared to 32 percent in 2010-11 followed by motor pump with 30 percent in 2012-13 as compared to 27 percent in 2010-11 and hand pump with 27 percent in 2012-13 as compared to 28 percent in 2010-11 (Table 4.7). Percentage of household using tap water as a main source of drinking water is higher in urban areas, 56 percent as compared to only 17 percent in rural areas, and decreasing pattern has been

observed for last few years and motorized pumping as a main source of drinking water is increasing. Provincial level comparison shows that number of households use tap water as a main source of drinking water is highest in KPK with 44 percent in 2012-13 as compared to 45 percent in 2010-11 followed by Sindh with 43 Percent in 2012-13, Balochistan with 34 percent in 2012-13 as compared to 35 percent in 2010-11 and Punjab with 22 percent in 2012-13 as compared to 24 percent 2010-11. In Islamabad (Federal Capital), 54 percent household are using tap water as main source of drinking water. While comparing districts, Lahore with 74 percent, Karachi with 86 percent & Chitral with 83 percent and Quetta with 83 percent are the top ranked districts in their respective provinces. On the other hand Hafizabad with 2 percent, Shikarpur with 1 percent, Kohistan with 6 percent and Musa Khel with almost no household using tap water as main source of drinking water are the bottom ranked districts in their respective provinces. The main source of drinking water in rural areas is hand pump, 37 percent as compared to 8 percent in urban areas.

#### 4.5 Toilets

Sanitation is also an important indicator of MDG. Toilet is a fixture for defecation and urination, consisting of a bowl fitted with a hinged seat and connected to a waste pipe and a flushing apparatus. In the questionnaire response was recorded regarding the type of toilet used by the household. A toilet, which is used by the household and is situated in the yard, is considered as a toilet in the household. The following are common types of toilets covered through PSLM Questionnaire.

- **Flush to sewerage** is used to flush away the waste, which drains into the public sewerage system.
- **Flush to septic tank** is used to flush away the waste, which is disposed of and accumulated in a septic tank/soak pit located under or near the toilet. A septic tank is a concrete structure, which can be cleaned and used permanently.
- **Flush connected open drain** the flushed waste is channelled through a drain, which is uncovered.
- **A soak pit is a “katcha”** structure, which is closed, once it is filled up. It is designed so that water disappears into the ground.
- **Dry raised latrine No flush** a “khuddi” is used and the waste matter is taken away by a sweeper/jamadar.
- **Pit latrine** A hole is dug in the ground, connected to a pit in which the waste matter is accumulated. The hole is closed once the pit is filled up.

Overall in Pakistan 71 percent of household are using flush toilet facility in 2012-13 as compared to 66 percent in 2010-11. Percentage of households using flush toilet is higher in urban areas, 97 percent as compared to 57 percent in rural areas. Provincial level comparison shows that the highest number of household in Punjab with 77 percent in 2012-13 are using flush toilet as compared to 72 percent in 2010-11 followed by KPK with 71 percent in 2012-13 as compared to 62 percent in 2010-11, Sindh With 63 percent

in 2012-13 as compared to 62 Percent in 2010-11 and Balochistan with 30 percent in 2012-13 as compared to 31 percent in 2010-11 (Table 4.8). In Islamabad (Federal Capital), 99 percent households are using flush toilet facility. While observing district level pattern, Lahore with 98 percent, Karachi with 97 percent, Peshawar with 88 percent and Quetta with 82 percent are top ranked districts in their respective provinces.

Overall there are only 15 percent household in 2012-13 that do not have toilet facility as compared to 18 percent in 2010-11 (Table 4.8). This varies greatly between urban and rural areas, 1 percent of urban households have reported no toilet facility as compared to 22 percent of rural household. Provincial level comparison shows that Punjab has the highest percentage of households reporting no toilet with 18 percent in 2012-13 as compared to 23 percent in 2010-11 followed by Balochistan with 15 percent in 2012-13 as compared to 13 percent in 2010-11, KPK with 13 percent in 2012-13 as compared to 18 percent in 2010-1, while Sindh remained stable at 8 percent between 2010-11 to 2012-13. While observing district level pattern, Jhang with 45 percent Tharparkar with 47 percent, Kohistan with 77 percent and Loralai with 54 percent are the districts with the highest percentage of households without any toilet facility in their respective provinces.