

Balochistan

Drought Needs Assessment Report

Provincial Disaster Management Authority (PDMA) Balochistan

February
2019



Balochistan Drought Needs Assessment (BDNA) Report

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Acknowledgment

The Balochistan Drought Needs Assessment (BDNA) was designed and implemented by the Natural Disasters Consortium (NDC) in fourteen (14) drought affected districts (Pishin, Killa Abdullah, Chaghi, Kacchi, Loralai, Washuk, Panjgur, Kech, Gwadar, Dera Bugti, Awaran, Nushki, Jhal Magsi, and Khara) of Balochistan. The NDC is led by the International Organization for Migration (IOM), and also includes the Food and Agriculture Organization of the United Nations (FAO), United Nations Children's Fund (UNICEF), Health and Nutrition Development Society (HANDS) and the Agency for Technical Cooperation and Development (ACTED). The World Food Programme (WFP), the World Health Organization (WHO), the United Nations Office for Coordination of Humanitarian Affairs (OCHA), and the United Nations Population Fund (UNFPA) also provided technical support for the assessment.

The NDC would like to acknowledge the contribution of Mr. Imran Khan Zarkoon (Director General) and his team at the Provincial Disaster Management Authority (PDMA-Balochistan) for their support, technical advice and inputs on design and execution of the assessment, and completion of the assessment report.

The NDC would also like to acknowledge the financial support offered by the Department for International Development (DFID), without which it would not have been possible to conduct this assessment.

Finally, and most importantly, we would like to thank the families who spent time answering the survey questions, without them creating this report would not have been possible.

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Introduction

Pakistan faces many challenges which include poverty, food insecurity and continuous natural and manmade disasters. As per the latest poverty estimates, 24% of Pakistan's population lives below the national poverty line; which includes 31% in rural areas and 13% in urban areas¹. Further, 38.8% of the national population is poor based on the multidimensional poverty index (MPI)²; 54.6% in rural areas and 9.4% in urban areas. In terms of food security, the situation presents a bleak picture. The global report titled "The State of Food Security and Nutrition in the World" (a joint publication of FAO, IFAD, WFP, UNICEF, and WHO) reports 20.5% of the total population of Pakistan was undernourished during the 2015-2017 period.

The province of Balochistan is the largest province in Pakistan in terms of area. The province is blessed with natural resources and contains approximately two thirds of the country's coast line which allow for ample livelihood opportunities in terms of trade and fisheries. However, Balochistan has the second highest incidence of multidimensional poverty in Pakistan (after FATA region). Overall, 71% of the population in Balochistan is multi-dimensionally poor; rural population is 85% and urban population is 38% multi-dimensionally poor.

According to the Pakistan Bureau of Statistics Labor Force Statistics for 2017-2018, 45% of Balochistan's population is illiterate (30% males and 63% females). The illiteracy rate is higher in rural areas compared to urban areas (50% of the population is illiterate in rural and 32% in urban areas).

The province of Balochistan is prone to multiple hazards including earthquakes, floods, and drought. Archives from PDMA Balochistan reveal that serious earthquakes occurred in Ziarat in 2008, in Washuk in 2013, and in Awaran in 2013. Similarly there were serious floods in the province in 2010, 2011, and 2013. However since 2016, drought/drought-like conditions have been prevailing in several districts of Balochistan which have impacted livelihood and food security in those districts. Particularly, drought has been a recurring phenomenon in the western and central districts of the province.

The drought-like conditions have recently affected the western, central, northern, and eastern districts of Balochistan. The drought conditions in Pakistan, reflected by the Standardized Precipitation Index (SPI), for selected months in 2018 are shown in Figure 1. Many districts in the province of Balochistan are under 'moderate to severe' drought conditions due to no or very low precipitation and persistent dry conditions which have worsened since July of 2018. Furthermore, departure from normal rainfall for selected months in 2018 (as shown Figure 2) is also very high in several parts of Balochistan³. The situation has worsened from July 2018 to December 2018 leading to drought like conditions across a large proportion of the province⁴.

¹ National poverty line is based on cost of basic needs approach (CBN), which include both food and non-food items. The latest national poverty line was computed using data of Household Integrated Income and Consumption Survey (HIICS) conducted in 2015-16.

² MPI was calculated from 15 indicators related to education, health and standard of living. The latest MPI was based on Pakistan Social and Living Standards Measurement (PSLM) survey conducted in 2014-15.

³ The maps have been prepared by Pakistan Meteorological Department (PMD).

⁴ Recent rainfall in January/February 2019 has slightly eased the situation in parts of Balochistan, however, it may not be adequate to overt the drought conditions.

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Figure 1: Drought Condition in Pakistan in 2018

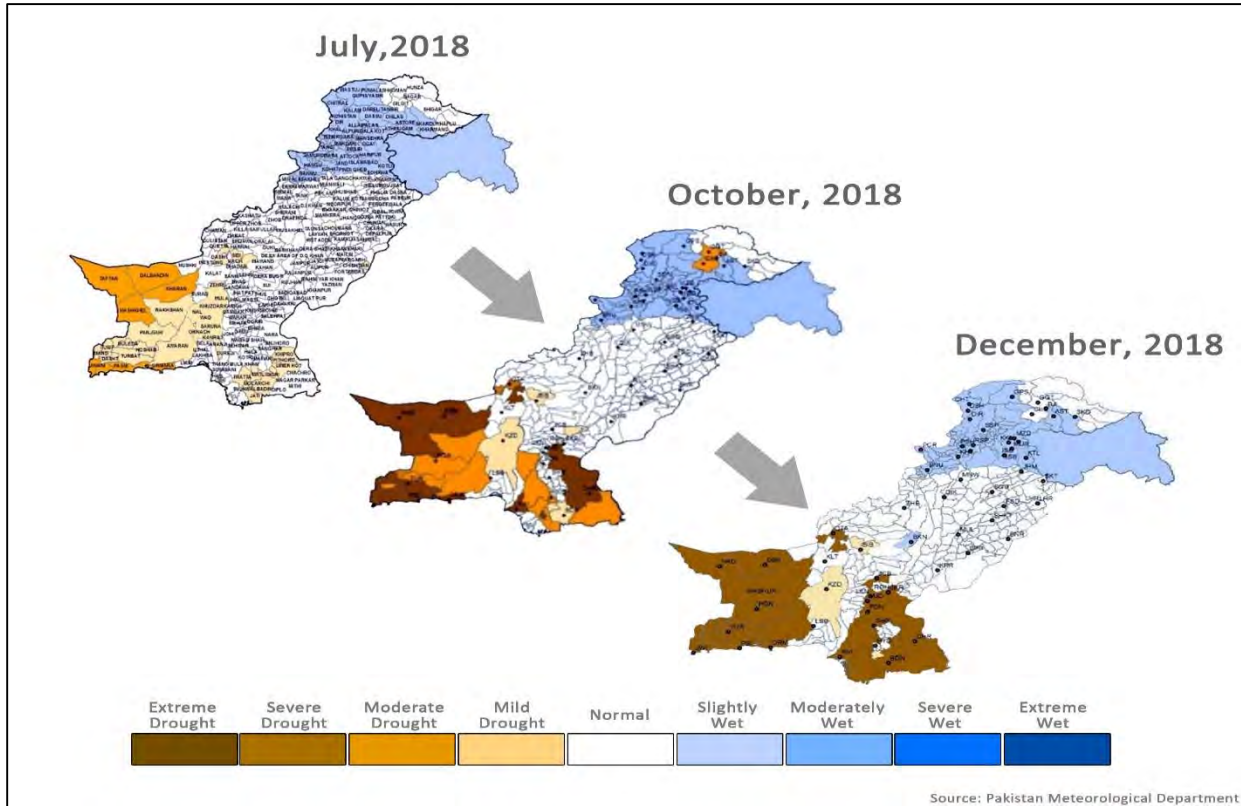
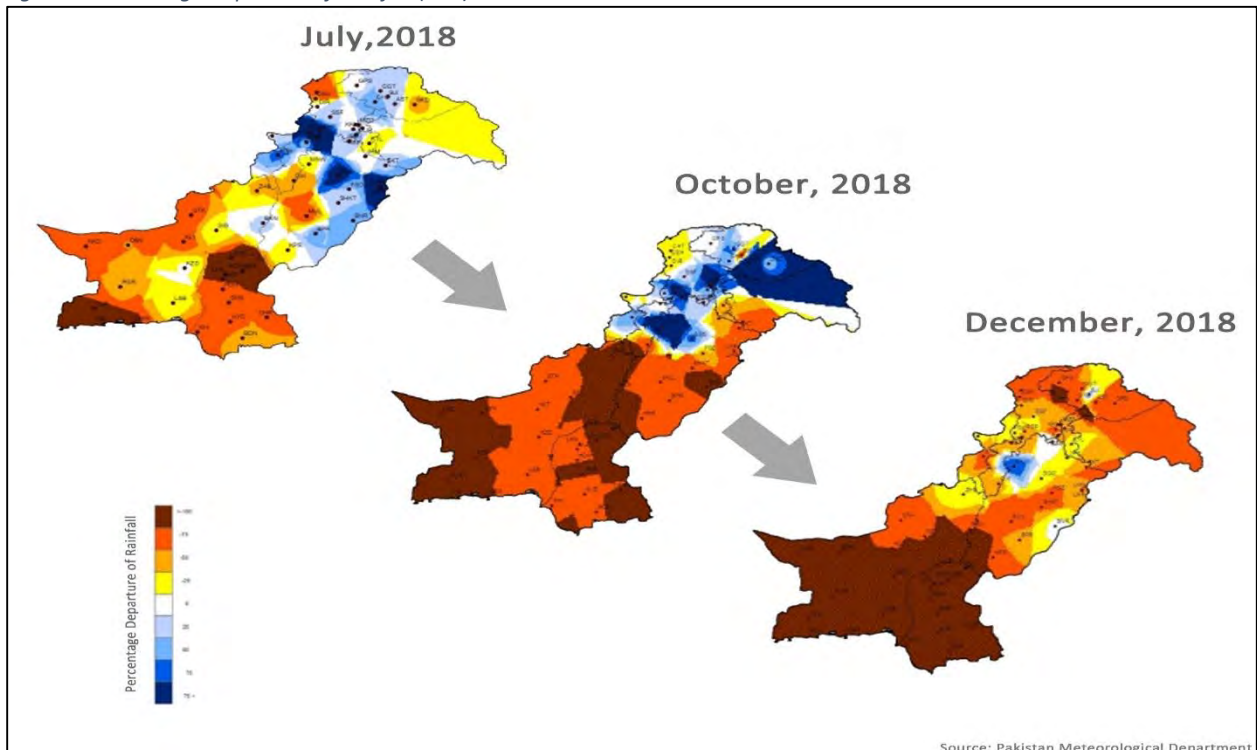


Figure 2: Percentage Departure of Rainfall (mm) in 2018



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Considering the lack of/very limited rainfall during the last monsoon season (July-September 2018) and reports of the drought situation being aggravated further, on October 17, 2018, the Provincial Disaster Management Authority – Balochistan issued a No Objection Certificate (NOC) to the Natural Disasters Consortium to conduct a drought assessment in 9 districts of the province (Nushki, Chaghi, Khاران, Washuk, Panjgur, Gwadar, Pishin, Killa Abdullah, and Kacchi). As the situation worsened over time, PDMA – Balochistan subsequently issued another NOC on December 12, 2018 in which another 5 districts (Kech, Jhal Magsi, Loralai, Dera Bugti, and Awaran) were added to the list of districts to be covered in the drought assessment. This brought the total number of drought affected districts to 14. The map below (Figure 3) shows the location of the drought affected districts surveyed during the drought assessment⁵.

Figure 3: Districts Surveyed for Balochistan Drought Needs Assessment 2019

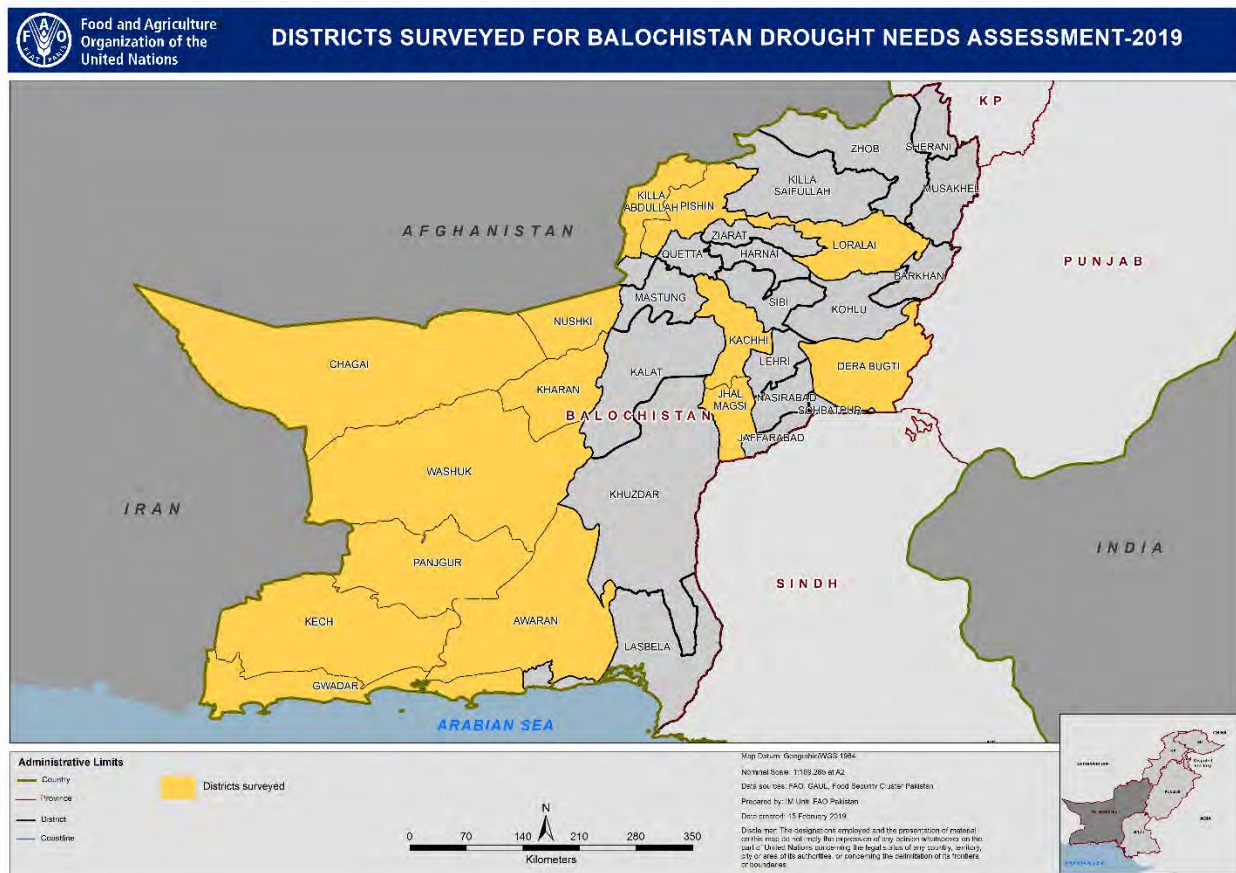
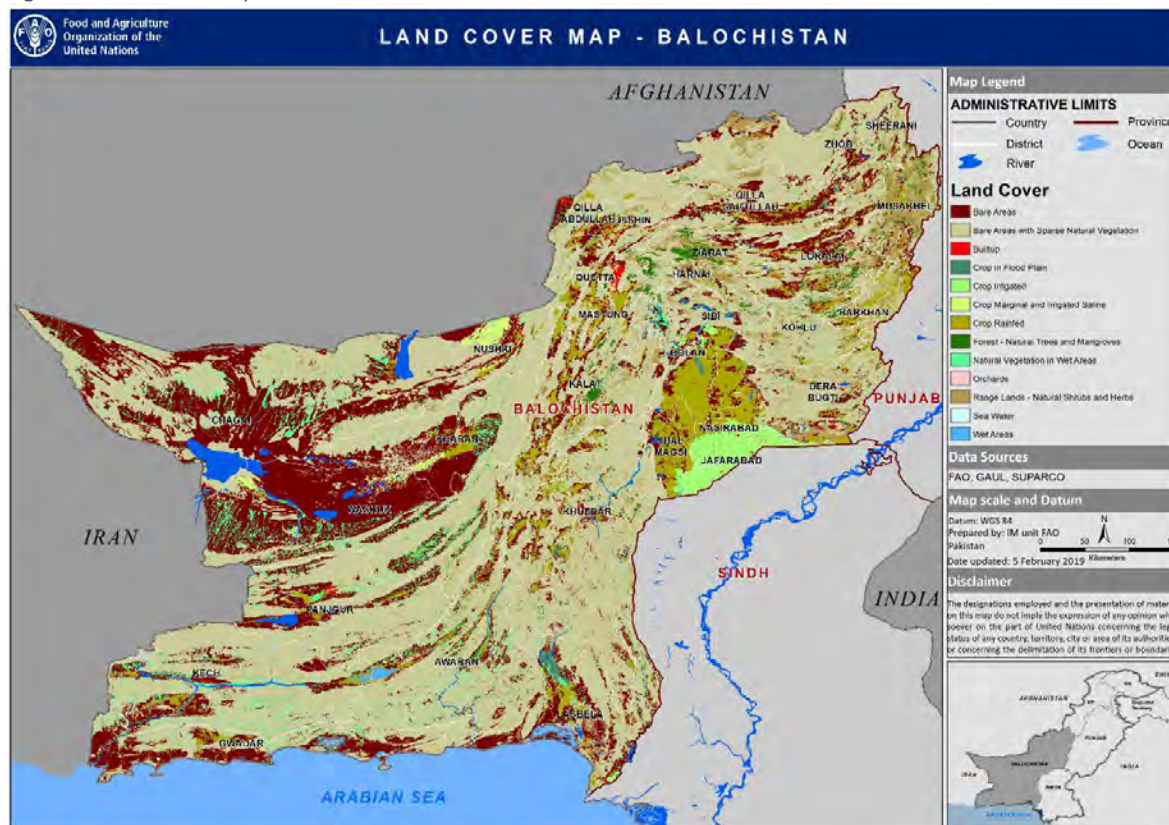


Figure 4 below provides a Land Cover Map for Balochistan province. The map suggests that most of the drought affected districts comprised of bare areas, bare areas with sparse natural vegetation and rain fed crops with limited access to canal water and mostly depend on rainfall or tube wells.

⁵ The Government of Balochistan issued another notification in which the number of drought affected districts in the province increased to 18. However by that time the drought needs assessment had already started and therefore this assessment only focussed on 14 districts notified by PDMA Balochistan on December 12, 2018.

Figure 4: Land Cover Map of Balochistan



With the consent of the Provincial Disaster Management Authority (PDMA) Balochistan, the Natural Disasters Consortium (NDC) has conducted a rapid multi-sector drought needs assessment in the drought notified districts. The Natural Disaster Consortium (NDC) is comprised of the International Organization for Migration (IOM), the Food and Agriculture Organization of the United Nations (FAO), the United Nations Children’s Fund (UNICEF), the Health and Nutrition Development Society (HANDS) and the Agency for Technical Cooperation and Development (ACTED). The World Food Programme (WFP), the World Health Organization (WHO), the United Nations Office for the Coordination of Humanitarian Affairs (OCHA), and the United Nations Population Fund (UNFPA) also provided technical support to complete the assessment.

Objectives of the Assessment

The assessment was conducted with the following specific objectives:

- To assess the impact of the drought on agriculture (crop cultivation, production, water availability and livestock), livelihoods and food security, access to water and sanitation and hygiene practices of the households and communities.
- To provide recommendations to the Government of Balochistan, NDC partners, and other decision/policy makers to prioritize actions (short, medium and long term) in relevant sectors and geographic areas to address immediate needs, rebuild effectively, and increase future resilience to drought to support drought affected households.

Methodology of Assessment

The Balochistan Drought Needs Assessment (BDNA) was conducted in 328 revenue villages (Mozas) of 14 districts including Awaran, Chaghi, Dera Bugti, Gwadar, Jhal Magsi, Kacchi, Kech, Kharan, Killa Abdullah, Loralai, Nushki, Panjgur, Pishin and Washuk. A comprehensive multi-sectoral household level questionnaire, similar to the one used in the Sindh Drought Needs Assessment (SDNA), was designed and administered during the BDNA.

Unlike the SDNA in which a focus group discussion (FGD) tool was also administered, the assessment technical team for BDNA decided to administer only a household level questionnaire during field work in Balochistan because the questionnaire is quite detailed and covers almost all relevant sections/questions needed to compute required analysis. However, the household questionnaire still had options in most of the questions to record and specify 'other response' if the response was not pre-coded.

Sampling Methodology

The sample size for the assessment was estimated using the following standard statistical parameters/formula:

Population size (N): (No. of rural households in the district)

Confidence level (z): 95%

Margin of error (e): 5%

Prevalence (p): 0.5

$$\text{Sample size} = \frac{z^2 * p(1-p)/e^2}{1 + (z^2 * p(1-p)/e^2) * N}$$

Considering the above parameters and formula, a sample size was estimated for each district⁶. According to generally accepted statistical standards, a confidence level of 95% and margin of error of 5% is used to produce reliable estimates. The sample size for each district is described in the table below.

Table 1: Sample size for each district

	No. of sampled households
OVERALL (14 Districts)	5136
AWARAN	374
CHAGHI	384
DERA BUGTI	208
GWADAR	376
JHAL MAGSI	378
KACHHI	384
KECH	382

⁶ After a certain level of population/household size (N), say 4,000, using same confidence level, margin of error and prevalence, the sample size for assessment does not vary much.

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KHARAN	376
KILLA ABDULLAH	382
LORALAI	379
NUSHKI	376
PANJGUR	380
PISHIN	382
WASHUK	375

The sampled households were drawn from the list of revenue villages (Mozas) of the surveyed districts⁷ using a multi- stage random sampling technique as described below:

- First stage: Revenue villages (*Mozas*) were selected randomly
- Second stage: Primary Sampling Unit (PSU) (one village from each sampled *Moza*)
- Third stage: Secondary Sampling Unit (SSUs/ 16 Households from each sampled village)

Out of 16 households interviewed per village, up to 3 were female headed households to assess their situation in comparison to male headed households.

Orientation on Questionnaires

The training of enumerators on questionnaire and data collection was organized in two phases. In the first phase, training on questionnaire and data collection was organized for 10 districts, whereas the same training was organized for 4 districts in the second phase.

For the first phase districts, a three-day orientation session on assessment questionnaire and methodology was arranged in Quetta from December 18-21 for two groups of enumerators. The first group of enumerators were from 4 districts: Kacchi, Chaghi, Killa Abdullah and Pishin who were provided training on household questionnaire from December 18-20, whereas the second group of enumerators were from 6 districts: Loralai, Dera Bugti, Panjgur, Kech, Washuk and Gwadar and they were trained from December 19-21, 2018. The training of enumerators for 4 second phase districts: Jhal Magsi, Nushki, Kharan and Awaran was conducted from January 2-4, 2019. The orientation on assessment questionnaire was jointly facilitated by staff from FAO, IOM, WFP, OCHA, HANDS and UNICEF during both phases of the assessment.

Data Collection

Data collection in 10 districts of the first phase began on December 22, 2018 and continued until January 4, 2019, whereas data collection in 4 districts of the second phase started on January 6, 2019 and finished on January 19, 2019. All field staff was divided into teams which consisted of 4 team members included 1 team coordinator, 2 male enumerators, and 1 female enumerator. With the exception of Dera Bugti district, two field teams were sent to collect data in all districts whereas 1 field team was sent to collect data in Dera Bugti. Team coordinators were responsible for coordinating with the assessment coordinators and local community members, supervising data collection, checking filled questionnaires, and dispatching completed questionnaires to FAO Islamabad Office for data entry. Staff from FAO, IOM,

⁷ The list of revenue villages (Mozas) was accessed from the website of the Pakistan Bureau of Statistics (PBS).

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WFP, OCHA UNICEF, and HANDS extensively monitored the field teams to ensure quality of data collection.

Overall, data was collected from 4,918 households located in 328 Revenue Villages (Dehs), of 177 Union Councils, 39 sub-districts (Talukas/Tehsils) of 14 drought affected districts in Balochistan (Pishin, Killa Abdullah, Chaghi, Kacchi, Loralai, Washuk, Panjgur, Kech, Gwadar, Dera Bugti, Awaran, Nushki, Jhal Magsi, and Kharan).

Data Entry and Analysis

Filled questionnaires were entered into a database by experienced data entry operators under the supervision of FAO staff in Islamabad office. Consolidated data was analyzed by a team of data analysts from IOM, FAO, WFP, UNICEF, OCHA, HANDS, UNFPA and ACTED. Data analysts prepared a tabulation plan and analyzed the data using Excel, SPSS and STATA software.

Limitations of the analysis

This assessment report is based on response of the households interviewed during the detailed assessment. The surveyed households provided information on their current situation in the context of drought, any problems they are facing, drought mitigation/coping strategies being used with respect to agriculture and food insecurity, and any support they have received or require. The assessment used standard modules and prepared standard indicators which have been produced in previous similar assessments.

Local indigenous knowledge and perceptions of the surveyed households are also somewhat included in the reported such as households' perception on availability of water compared to previous two seasons and drought related coping strategies. The households that responded to the questions also had the option to provide additional information in the form of 'other' if response was not pre-coded in the questionnaire.

The findings of the assessment present the situation in the rural areas of the 14 districts surveyed during the assessment and hence should not be generalized to all households in the surveyed districts. The field teams in Killa Abdullah and Awaran districts could not interview the targeted number of households for operational reasons, whereas survey was only conducted in one tehsil of Dera Bugti for the same reasons.

Regional/Household Socio-Demographic Profile

Out of sample of 5,136 households, in total, 4,918 households were interviewed in 328 Revenue Villages (Mozas) of 177 Union Councils, located in 39 sub-districts (Tehsils) of the 14 districts⁸. The distribution of surveyed households in each district is as follows:

Table 2: Distribution of Surveyed Households across the Sub-districts/Districts

District	Tehsil	No. of Households Interviewed	Distribution	District	Tehsil	No. of Households Interviewed	Distribution
AWARAN	AWARAN	83	28%	KECH	BULAIDA	46	13%
	JHAL JHAO	136	46%		DASHT	80	22%
	MASHKAI	79	27%		TUMP	67	18%
	Total	298	100%		TURBAT	174	47%
CHAGHI	CHAGHI	95	25%	Total	367	100%	KILLA ABDULLAH
	DALBANDIN	208	54%	CHAMAN	123	49%	
	NOKUNDI	80	21%	GULISTAN	79	32%	
	Total	383	100%	KILLA ABDULLAH	48	19%	
DERA BUGTI	QADIR ABAD	207	100%	Total	250	100%	LORALAI
	Total	207	100%	BORI	288	75%	
GWADAR	GWADAR	178	47%	LORALAI	LORALAI	95	25%
	JIWANI	36	10%	Total	383	100%	NUSHKI
	ORMARA	25	7%	NUSHKI	383	100%	
	PASNI	137	36%	Total	383	100%	PANJGUR
	Total	376	100%	GOWARGO	64	17%	
JHAL MAGSI	GANDAWAH	144	38%	PANJGUR	PANJGUR	308	80%
	JHAL MAGSI	237	62%	PAROME	12	3%	
	Total	381	100%	Total	384	100%	
KHARAN	KHARAN	115	30%	PISHIN	BARSHORE	64	17%
	SAR KHARAN	263	70%		KAREZAT	64	17%
	Total	378	100%		PISHIN	231	61%
KACHHI	BHAGNARI	97	25%		SARANAN	17	5%
	DHADAR	128	33%	Total	376	100%	WASHUK
	MACH	31	8%	BESIMA	177	48%	
	SANNI	128	33%	MASHKHEL	100	27%	
	Total	384	100%	WASHUK	91	25%	
				Total	368	100%	

⁸ The targeted sample for this assessment was 5,136 households, however field teams were able to interview 4,918 households in 14 targeted districts. The field teams in Killa Abdullah and Awaran districts could not achieve their target for operational reasons. Sampled households were only interviewed in one tehsil of Dera Bugti due to the same operational reasons. The list of surveyed revenue villages (Mozas) is provided in the annex A.

Demographic and Socio-economic Profile of Surveyed Households

Our sampling methodology required field teams to interview up to 3 women headed households from each village to assess the livelihood and food security situation of female headed households compared to male headed households. Overall, 12% of the surveyed households were headed by women (widows, divorced, separated, or whose husband was away from home for work). The proportion of women headed households interviewed was highest in Kech (20%) followed by Jhal Magsi and Kacchi (19%). Overall, an overwhelming majority (86%) of the household heads were married (95% in Killa Abdullah) and 8% (18% in Kacchi) were widow/widowers.

Table 2: Demographic Characteristics of the Surveyed Households

DISTRICT	No. of households	Gender of head of household		Marital status of head of household			
		Women	Men	Unmarried	Married	Divorced /Separated	Widow/Widower
OVERALL	4918	12%	88%	5%	86%	1%	8%
AWARAN	298	10%	90%	6%	82%	1%	11%
CHAGHI	383	14%	86%	4%	84%	2%	11%
DERA BUGTI	207	5%	96%	2%	94%	1%	3%
GWADAR	376	17%	84%	6%	87%	1%	6%
JHAL MAGSI	381	19%	81%	3%	82%	1%	15%
KACHHI	384	19%	81%	4%	78%	1%	18%
KECH	367	20%	80%	4%	90%	1%	6%
KHARAN	378	16%	84%	3%	80%	10%	7%
KILLA ABDULLAH	250	1%	99%	1%	95%	0%	3%
LORALAI	383	6%	94%	3%	88%	0%	8%
NUSHKI	383	8%	92%	6%	91%	0%	3%
PANJGUR	384	10%	90%	2%	91%	2%	5%
PISHIN	376	15%	85%	4%	84%	1%	12%
WASHUK	368	3%	97%	13%	84%	0%	3%

More than half of surveyed households reported having a child under the age of 5 (99% in Dera Bugti), and 84% of the households reported having a child between the ages of 5 – 17 (with highest percentage 96% in Dera Bugti). Of the surveyed households, 20% reported presence of a Pregnant and Lactating Woman (PLW) (77% in Dera Bugti), whereas 30% reported presence of an elderly member (age above 60 years).

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Table 3: Demographic Characteristics Including Age Bracket

DISTRICT	Household has under 5 children		Household has 5-17 Years old children		Household has adults (18+)		Household has elderly (60+)		Household has PLW	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
OVERALL	46%	54%	16%	84%	4%	97%	70%	30%	80%	20%
AWARAN	39%	61%	13%	87%	1%	99%	80%	20%	95%	5%
CHAGHI	59%	42%	25%	75%	3%	97%	70%	30%	94%	6%
DERA BUGTI	2%	99%	5%	96%	0%	100%	61%	39%	23%	77%
GWADAR	57%	43%	14%	86%	5%	96%	58%	42%	96%	4%
JHAL MAGSI	52%	48%	19%	81%	4%	96%	84%	16%	81%	19%
KACHHI	44%	56%	14%	86%	3%	97%	55%	45%	76%	24%
KECH	56%	44%	14%	86%	2%	98%	67%	33%	86%	14%
KHARAN	56%	44%	21%	79%	16%	84%	84%	16%	97%	3%
KILLA ABDULLAH	27%	73%	19%	82%	3%	97%	70%	30%	62%	38%
LORALAI	35%	65%	14%	86%	3%	97%	61%	39%	71%	29%
NUSHKI	41%	60%	17%	83%	2%	98%	66%	34%	73%	27%
PANJGUR	63%	38%	15%	85%	2%	98%	87%	14%	87%	13%
PISHIN	48%	52%	10%	90%	3%	97%	72%	28%	75%	25%
WASHUK	36%	64%	17%	83%	1%	99%	64%	36%	80%	20%

Education, an important factor in improving economic status of households, is very low among the surveyed households. Around 65% of the heads of households have never been to school (86% in Washuk), only 11% attained primary level of education (21% each in Chaghi and Pishin), followed by middle and secondary education at 8% each, and higher secondary & graduation/post-graduation at 4% each.

Table 4: Level of Education of the Head of Households

DISTRICT	Education level of head of household						
	Never been to school	Primary (1-5)	Middle (6-8)	Secondary (9-10)	Higher secondary (11-12)	Graduation/Post graduation	Other
OVERALL	65%	11%	8%	8%	4%	4%	0%
AWARAN	64%	13%	4%	6%	6%	7%	0%
CHAGHI	62%	21%	7%	7%	1%	2%	0%
DERA BUGTI	70%	14%	4%	8%	2%	3%	0%
GWADAR	80%	7%	7%	1%	3%	1%	0%
JHAL MAGSI	79%	8%	3%	6%	3%	1%	0%
KACHHI	68%	11%	5%	9%	4%	4%	0%
KECH	65%	6%	8%	9%	6%	6%	0%
KHARAN	66%	3%	10%	12%	4%	4%	0%

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KILLA ABDULLAH	60%	16%	11%	4%	4%	4%	1%
LORALAI	67%	9%	6%	8%	5%	6%	0%
NUSHKI	60%	11%	11%	9%	1%	7%	1%
PANJGUR	45%	10%	11%	14%	11%	8%	0%
PISHIN	33%	21%	14%	18%	7%	7%	0%
WASHUK	86%	5%	4%	3%	1%	1%	1%

With respect to current primary source of livelihood/income, overall two-thirds (67%) of surveyed households earn their livelihood/income from non-agricultural sources⁹ (non-agriculture daily wage labor at 31%, job & business/professionals 26% and others 10%)¹⁰, whereas one-third (32%) from agriculture/livestock based activities¹¹ (96% in Dera Bugti). Dependence on non-agriculture daily wage labor is reported most in Chaghi (56%), job and business in Killa Abdullah (59%), and others in Nushki (18%).

Table 5: Primary Income Sources of the Households

DISTRICT	Primary sources of livelihood/income			
	Agriculture and livestock	Non-agriculture daily wage labor	Job and business	Others
OVERALL	32%	31%	26%	10%
AWARAN	49%	19%	17%	14%
CHAGHI	12%	56%	18%	14%
DERA BUGTI	96%	0%	1%	0%
GWADAR	19%	44%	27%	11%
JHAL MAGSI	36%	42%	17%	5%
KACHHI	47%	33%	17%	3%
KECH	4%	52%	29%	15%
KHARAN	44%	12%	28%	15%
KILLA ABDULLAH	22%	10%	59%	4%
LORALAI	52%	19%	26%	5%
NUSHKI	18%	31%	34%	18%
PANJGUR	24%	18%	41%	17%
PISHIN	33%	19%	43%	3%
WASHUK	23%	54%	10%	14%

⁹ Non-agricultural sources include: non-agriculture daily wage labor, business/self-employed, government employee, NGO/private employee, professional (doctor, engineer, and lawyers), petty trade, handicrafts, pension/ allowances, remittances (domestic/foreign) etc.

¹⁰ Others include those dependent on pension/ allowances, remittances (domestic/foreign), BISP, zakat/charity and or home-based work like handicraft etc.

¹¹ Agriculture/livestock-based activities include: sale of agriculture produce (sale of food/cash crops/vegetables/fruits), agricultural wage labor, forestry worker, sale of firewood/grass/charcoal, and sale of livestock/livestock products etc.

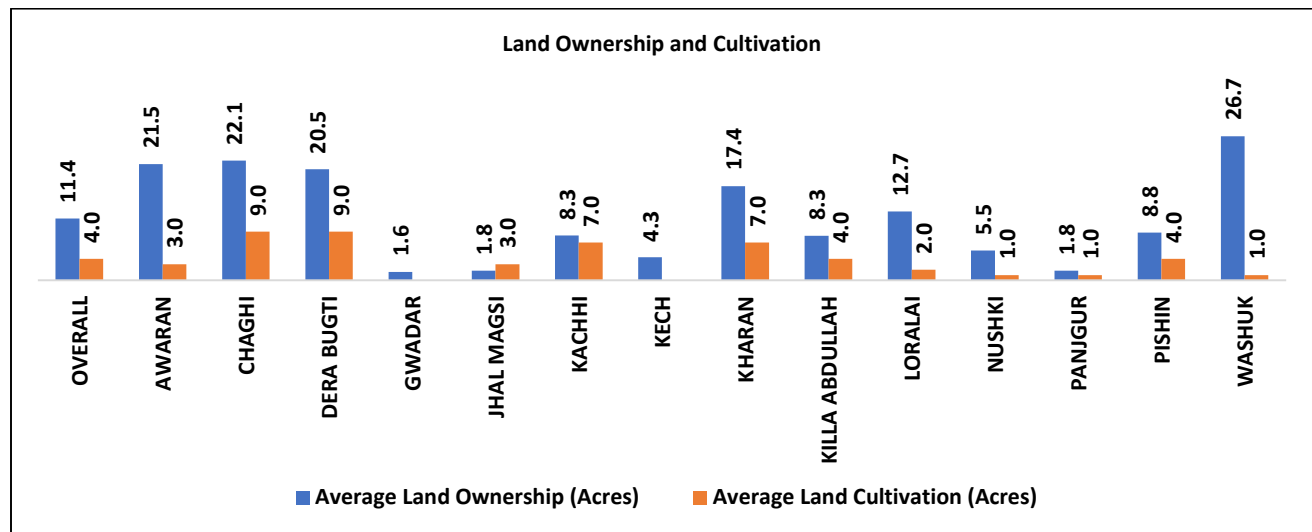
Agriculture

Land Ownership and Cultivation

Agriculture is one of the most important sources of livelihood for households in the surveyed districts. The households were not only engaged in crop cultivation and agricultural labour, but also in livestock rearing for subsistence and livelihood. On average, the surveyed households in the surveyed districts own 11.4 acres of land (highest in Washuk with 26.7 acres), whereas they cultivate on average 4.0 acres only (highest 9.0 acres each in Chaghi and Dera Bugti). Furthermore, women-headed households own and cultivate 6.1 and 2.0 acres respectively, which is half of what is owned and cultivated by male-headed households (12.1 and 4.0 acres respectively).

Of the surveyed households, 61% own cultivable agricultural land (highest 91% in Loralai and lowest 8% in Gwadar), whereas 33% of surveyed households cultivate land (highest 86% in Dera Bugti and lowest 0% in Gwadar). Proportionally less women headed households own and cultivate land (45% and 19% respectively) than men headed households (63% and 36% respectively).

Figure 5: Land Ownership and Cultivation by District



In terms of the distribution of agricultural land ownership, overall 39% of the surveyed households do not own any land (highest 92% in Gwadar and lowest 4% in Dera Bugti), whereas 38% of households own five or more acres of land (highest 78% in Dera Bugti and lowest 3% in Panjgur) (Figure 6). A significantly higher proportion of households headed by women do not own land compared with households headed by men.

In the case of land cultivation, overall 67% of the surveyed households do not cultivate land (highest 100% in Gwadar and lowest 14% in Dera Bugti), whereas 16% of households cultivate five and greater acres of land (Figure 7). A significantly higher proportion of households headed by women do not cultivate land when compared with households headed by men. For both types of households, the most common acreage of land cultivation is five and more acres (10% women vs. 17% men) (Figure 7).

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Figure 6: Distribution of Land Ownership by Size of Land and District

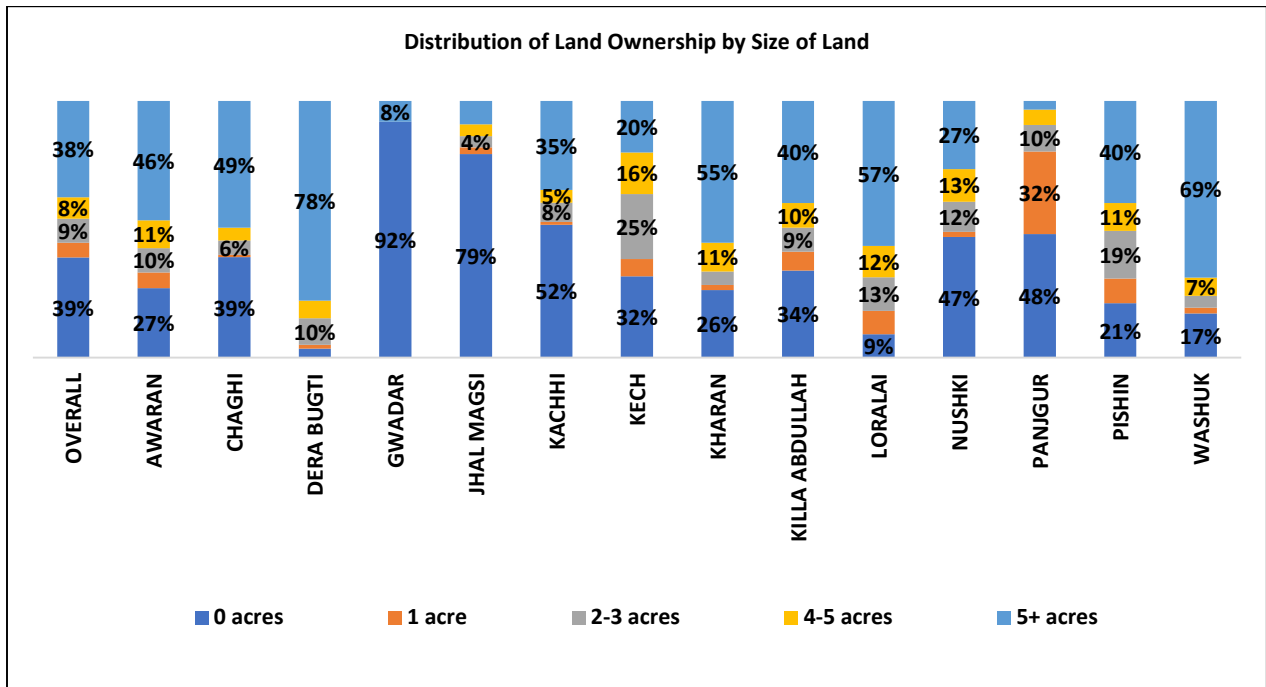
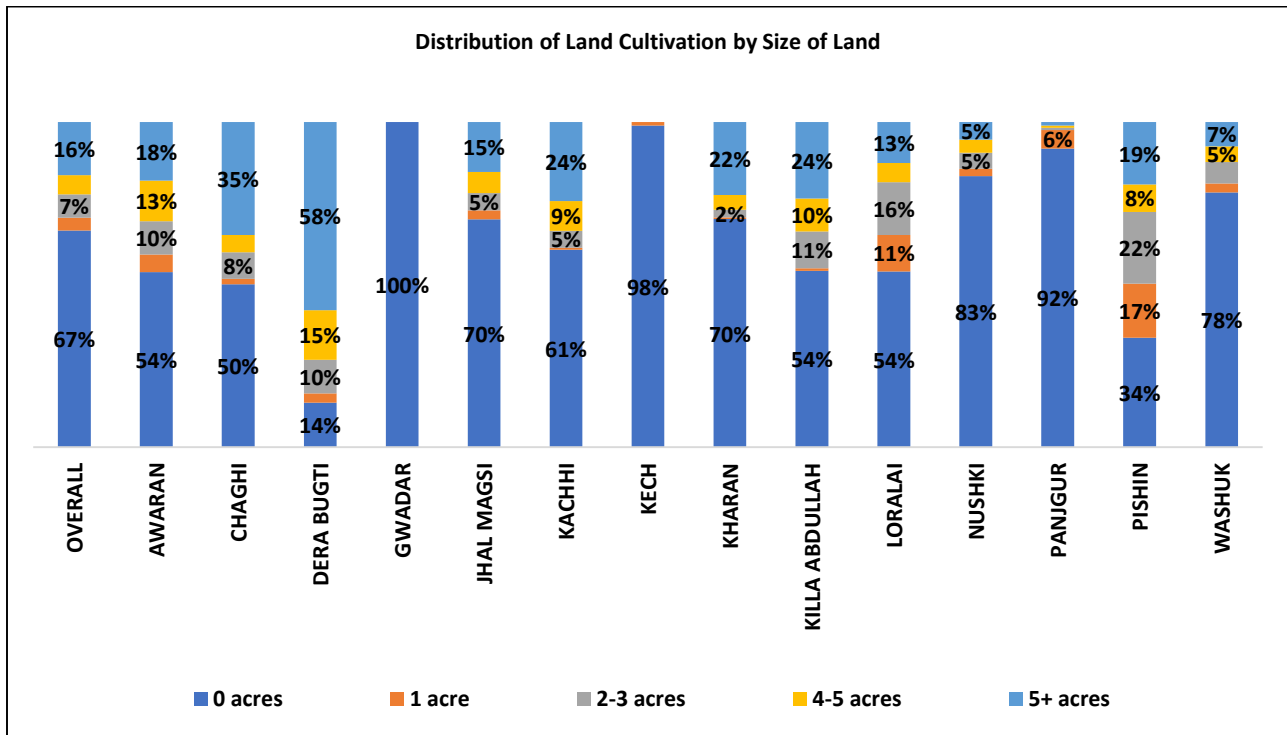


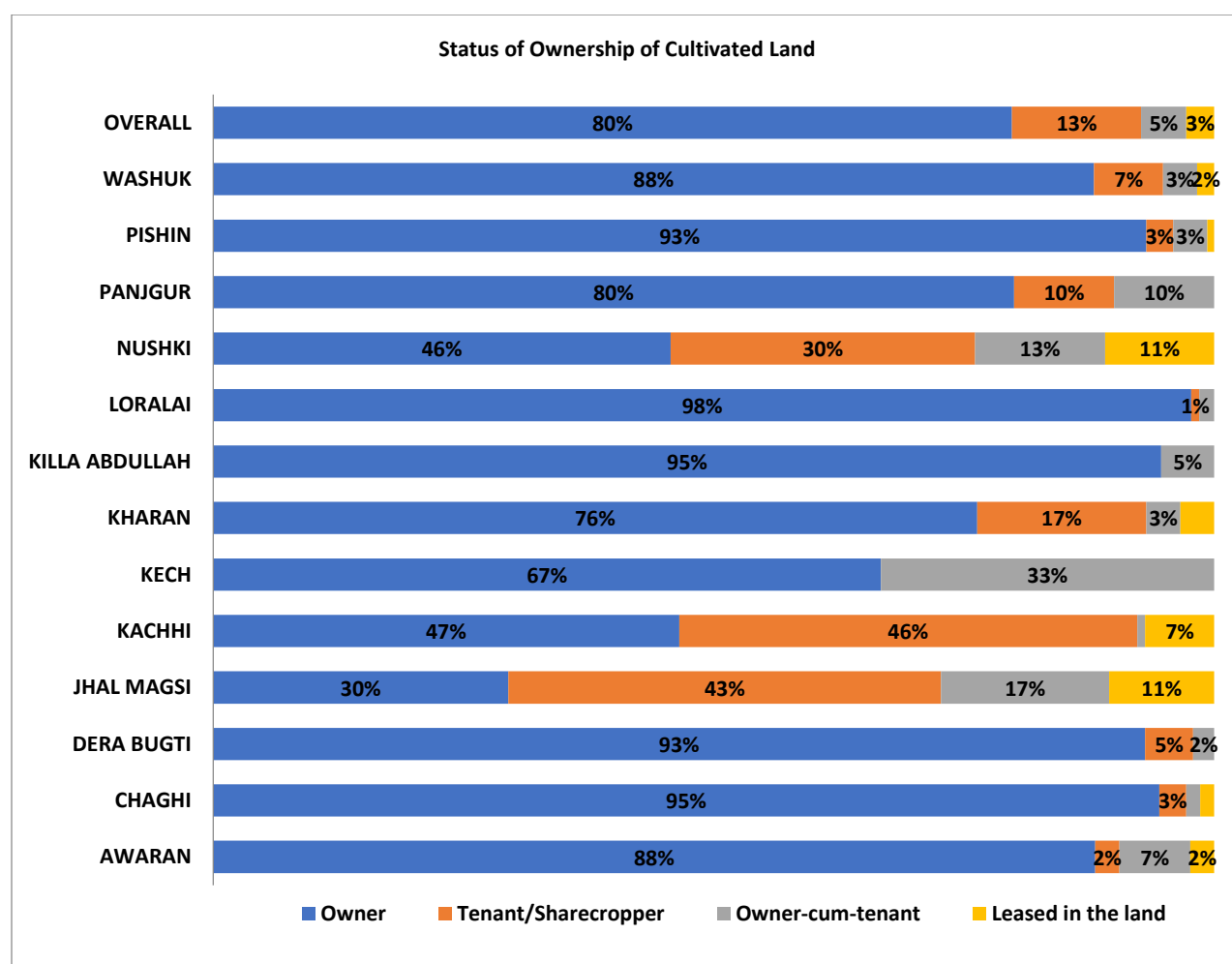
Figure 7: Distribution of Land Cultivation by Size of Land and District



Status of Ownership of Cultivated Land

Overall, an overwhelming majority (80%) of the farming households (land cultivators) are owners of the land they cultivate (highest 98% in Loralai), 13% are tenants/share croppers (highest 43% in Jhal Magsi), 5% are owner-cum-tenants (highest 17% in Jhal Magsi) and remaining 3% farming households have leased in the land (highest 11% each in Nushki and Jhal Magsi). The tenants/sharecroppers often engage in informal contracts with landlords and share the costs of inputs (seeds, water, fertilizer, etc.) and crop production (usually 50%) (Figure 8). Further, analysis by gender of head of household shows minor difference (1-2 percentage points) between women and men headed households in terms of status of ownership of land they cultivate.

Figure 8: Status of Ownership of Cultivated Land by District



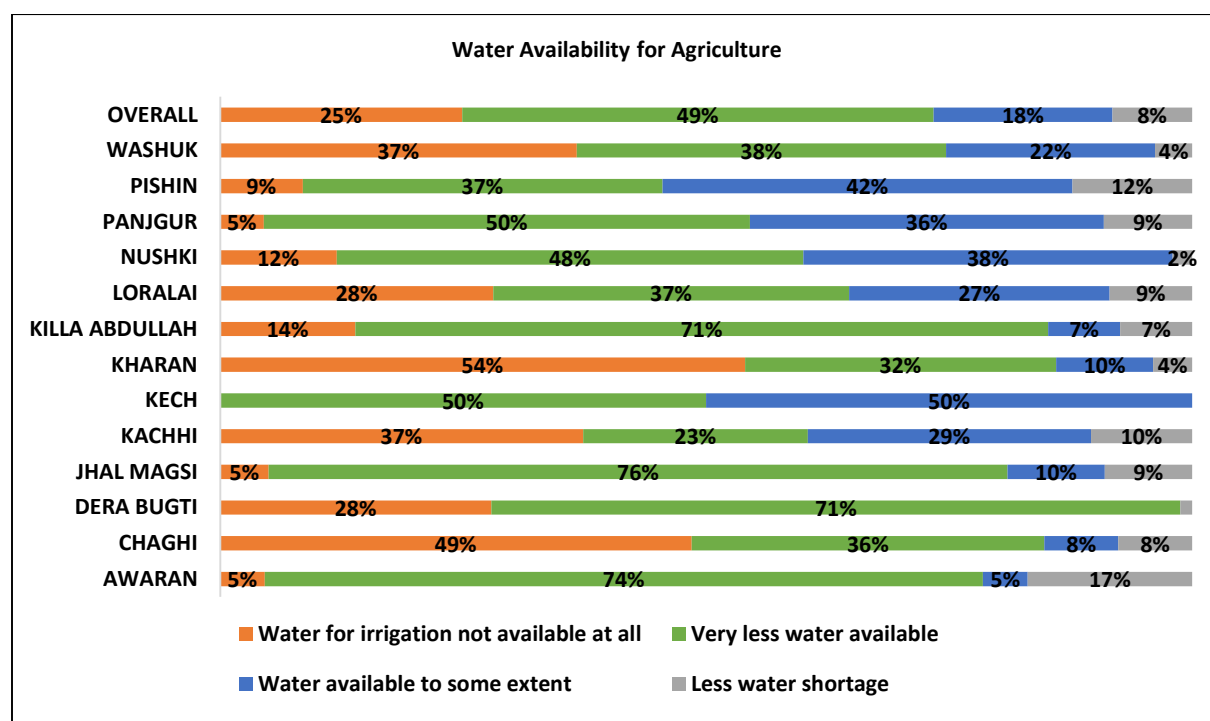
Availability of Water for Agricultural Activities

With frequent dry spells and limited rain fall, farming households are experiencing reduction in the availability of water for agricultural activities. Lack or limited availability of water has negatively impacted crop cultivation, which is one of the important reasons for less cultivation of land compared to land ownership. Overall, 25% of the farming households reported that water for irrigation was not available at

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all compared to the amount available the previous year, 49% reported a severe shortage, 18% reported water available to some extent (moderate shortage), whereas 8% reported less shortage of water. The shortage of water for agriculture was more pronounced in Dera Bugti, Killa Abdullah, Kharan, Chaghi and Jhal Magsi where more than 80% of farming households reported either water not at all or very less available compared to the 2016-17 agricultural seasons (Figure 9).

Figure 9: Water Availability for Agriculture Compared to Last Year (2017)



Crop Cultivation

Change in Crop Cultivation Area Compared to 2016-17 Agricultural Seasons

The drought in Balochistan has adversely impacted the area under cultivation as farmers reported a reduction in the area cultivated compared to the area cultivated in the 2016-17 agricultural season¹². Farming households in the surveyed areas are mainly engaged in cultivation of wheat, sorghum, onions, rice, cotton, pulses, potatoes, tomatoes, vegetables, fodder crops, apples, dates, grapes and melons. A small number of farming households also cultivate maize, mustard, and millet crops and other fruits (pomegranates, apricots and almonds)¹³.

Overall, compared to the 2016-17 seasons, cultivation area (measured in acres) for wheat was reduced by 14% in 2017-18, rice by 10%, cotton by 33%, onions by 17%, sorghum by 27%, pulses and potatoes by

¹² The change in crop area cultivation is computed to compare cultivation of different crops in 2017-18 Rabi and Kharif cropping seasons compared to the 2016-17 cropping seasons.

¹³ Due to small number of cases, these crops and fruits have not been analyzed.

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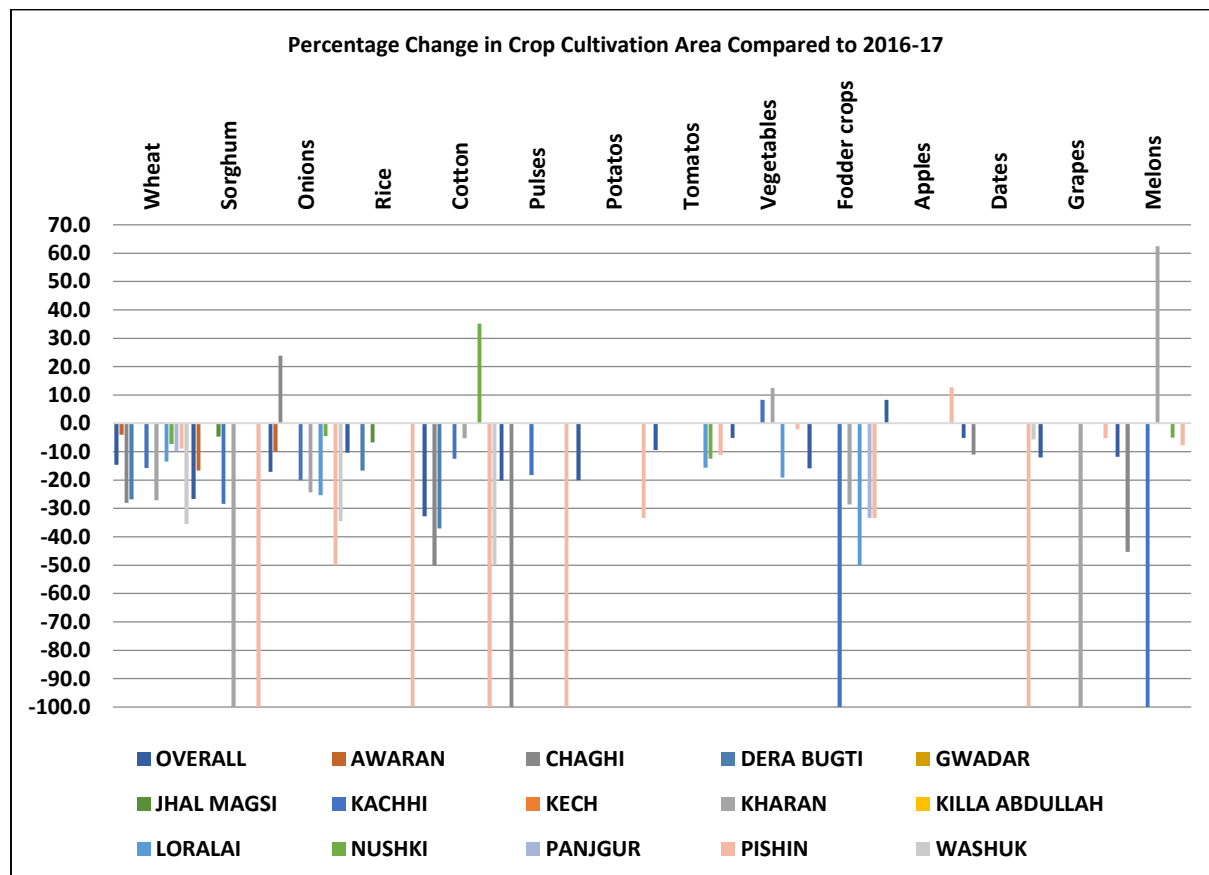
20% each, tomatoes by 9%, vegetables by 5%, fodder crops by 16%, dates by 5%, grapes and melons by 12%, whereas cultivation area for apples increased by 8%.

The highest reduction in cultivation area for wheat was in Washuk (by 35%), for sorghum in Kharan and Pishin (100%), for onions in Pishin (50%), for rice in Pishin (100%), for cotton in Pishin (100%), for pulses in Chaghi and Pishin (100%), for tomatoes in Loralai (16%), for vegetables in Loralai (19%), for fodder crops in Kacchi (100%), for dates in Pishin (100%), for grapes in Kharan (100%) and for melons in Kacchi (100%).

On the other hand, cultivation area for wheat increased in Killa Abdullah by 0.5%, by 24% in Chaghi, cotton by 35% in Nushki, vegetables by 8% and 13% in Kacchi and Kharan respectively, apples by 8% overall and 13% in Pishin and melons by 63% in Kharan (Figure 10).

The reduction in cultivated area of wheat, onions, rice, apples and melons was higher among female headed households, whereas reverse holds true for male headed households for other crops, vegetables and fruits.

Figure 10: Percentage Change in Crop Cultivation Area Compared to 2016-17 by District

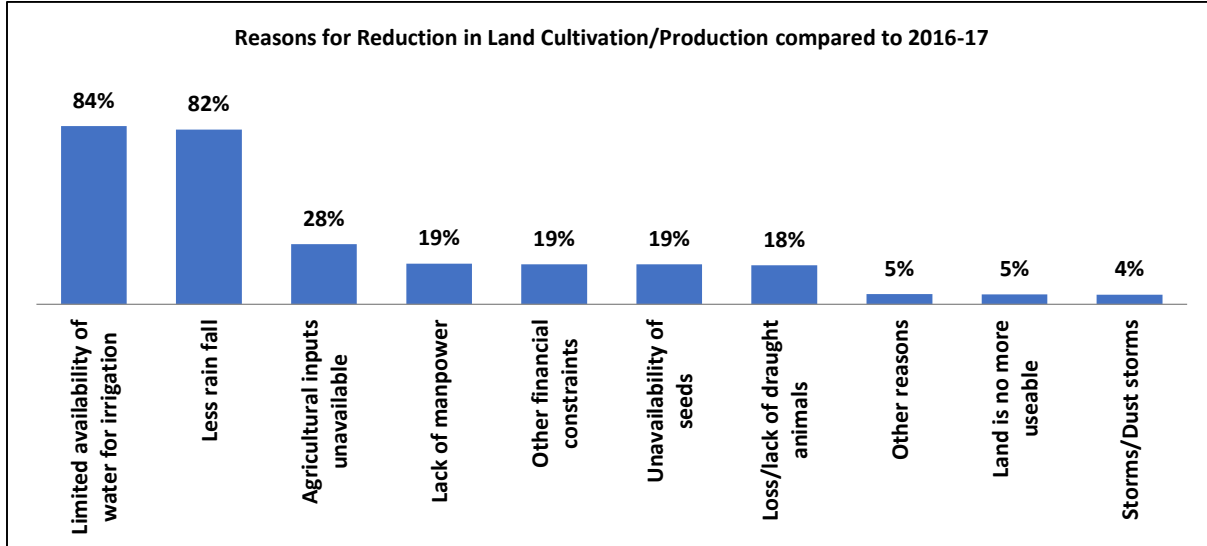


Reasons for Change in Crop Cultivation/Production

An overwhelming majority (84%) of farming households stated limited availability of water for irrigation as the primary reason for the change in crop cultivation/production. Succeeding common responses include less rain-fall (82%), unavailability of agricultural inputs (28%), lack of manpower, financial

constraints and unavailability of seeds (19% each), loss/lack of draught animals (18%), land is not useable anymore, and other reasons (5%), and storms/dust storms (4%) (Figure 11).

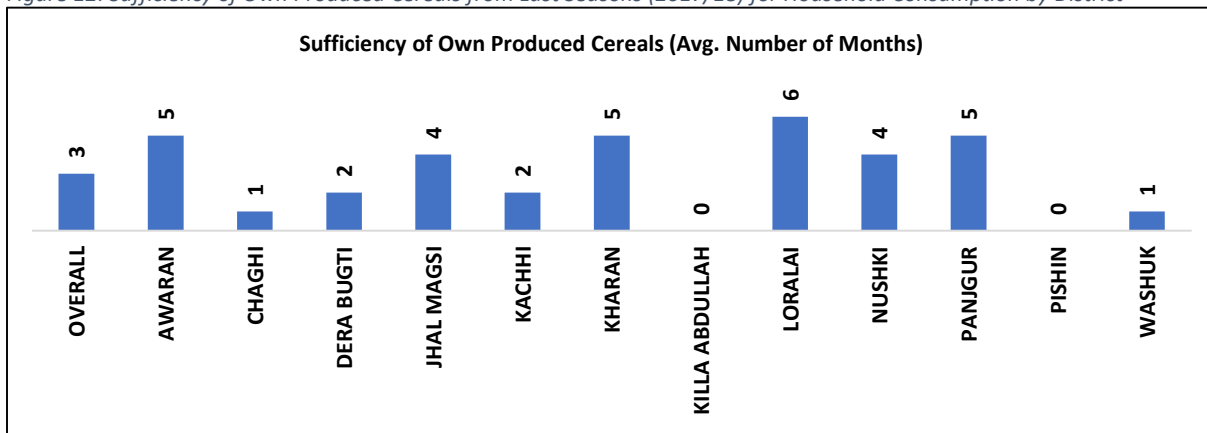
Figure 11: Reasons for Reduction in Land Cultivation / Production Compared to 2016-17-Overall



Sufficiency of Own Produced Cereals for Household Consumption

Production of cereals for household’s own consumption contributes to food security through the dimension of food availability. However, surveyed farming households reported limited cereal production (wheat, rice, maize) in the previous two seasons (Kharif 2018 and Rabi 2017-18). Overall, cereal production was only sufficient for household consumption for about 3 months (highest 6 months in Loralai and lowest 0 months in Pishin and Killa Abdullah) (Figure 12). Households headed by males and females reported similar adequacy of cereals produced for own consumption i.e. 3 months.

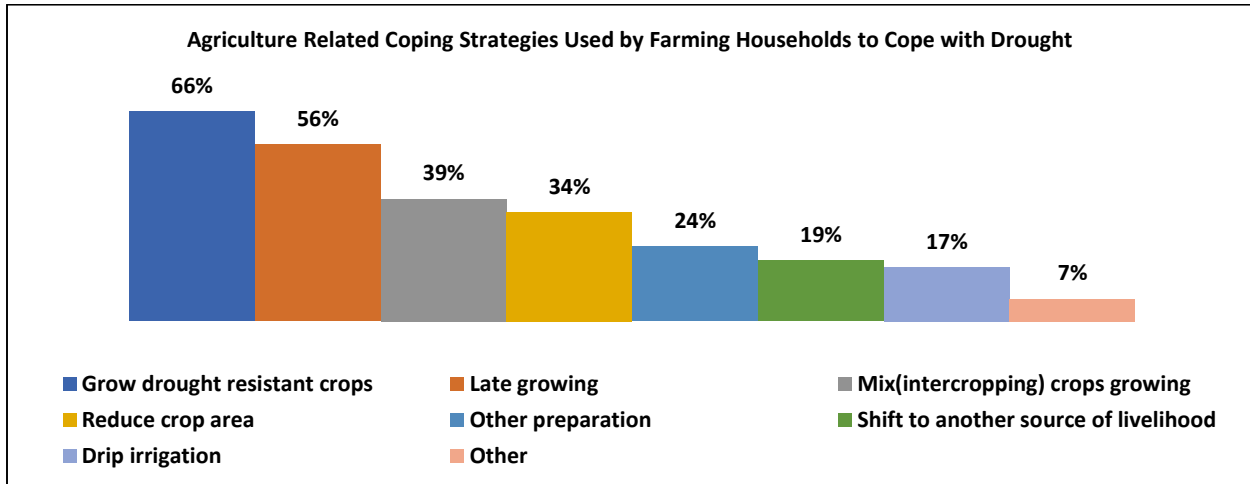
Figure 12: Sufficiency of Own Produced Cereals from Last Seasons (2017/18) for Household Consumption by District



Agriculture Related Coping Strategies Used by Farming Households during Drought

The farming households often engage in different agriculture related coping strategies to cope with drought. Common agriculture related coping strategies include growing drought resistant crops (reported by 66% of farming households), late growing of crops (56%), mixed (intercropping) crop growing (39%), reducing the crop area and using drip irrigation to use limited water efficiently (34% and 17% respectively), and other preparation (24%) etc. (Figure 13).

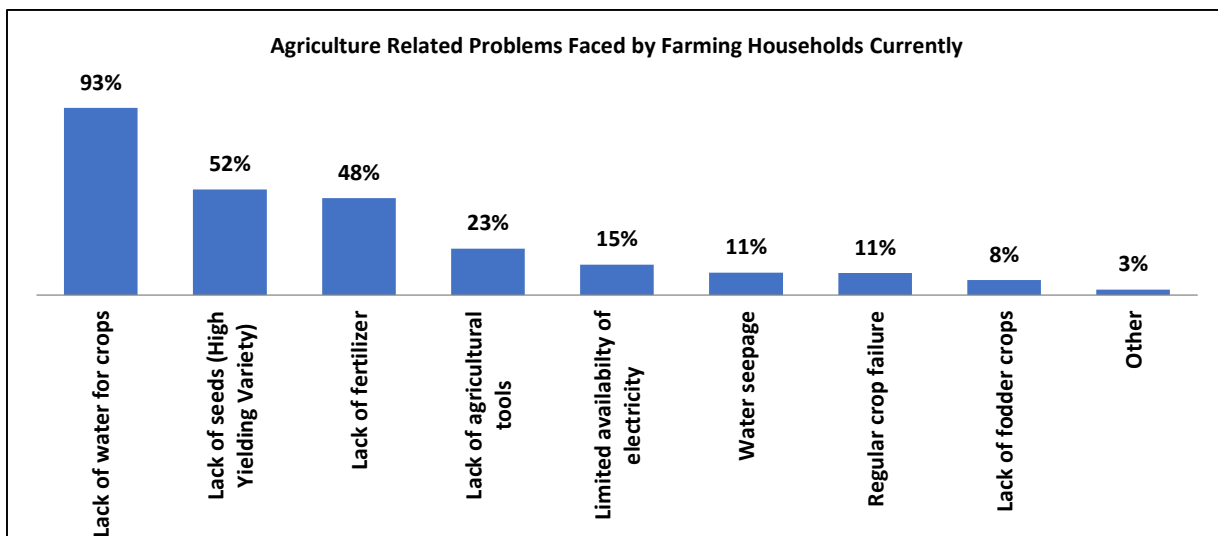
Figure 13: Agriculture Related Coping Strategies Used by Farming Households Overall



Agriculture Related Problems Faced by Farming Households

Farming households reported facing four major problems: lack of water for crops (reported by 93% of farming households), lack of access to high yielding variety of seeds (52%), lack of access to fertilizer (48%), and lack of agricultural tools (23%). (Figure 14).

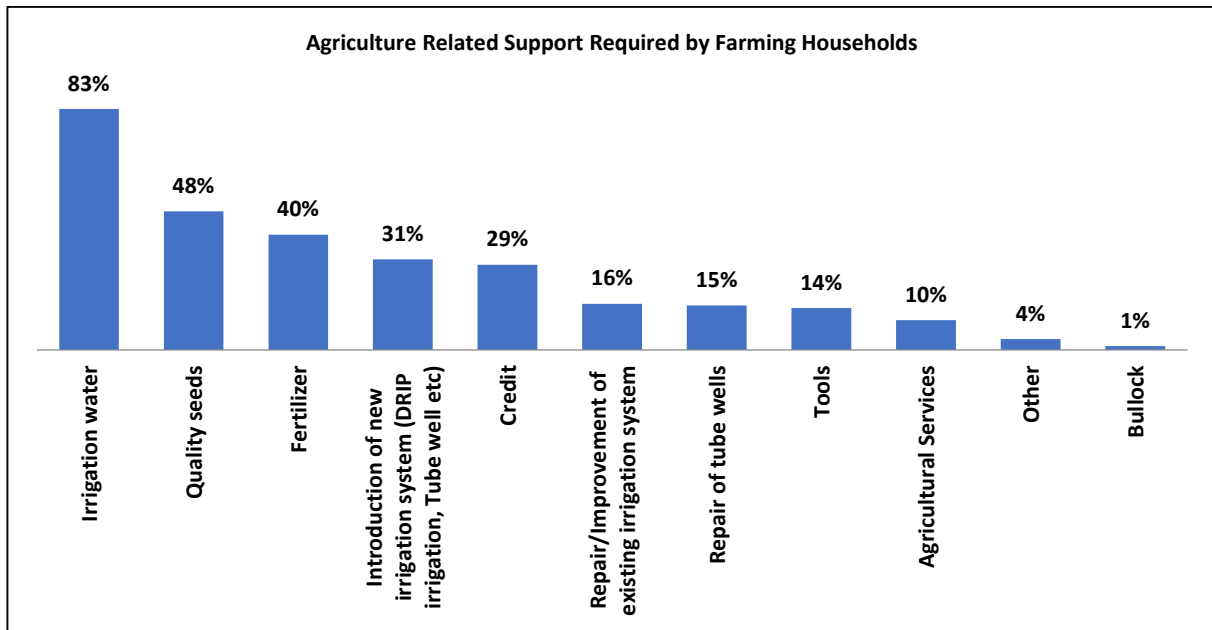
Figure 14: Agriculture Related Problems Faced by Farming Households Currently



Support Required by Farming Households to Improve Crop Production

The farming households were also asked about any support they require to improve crop production in the next cropping season. The farming households indicated (in order of importance) the need for irrigation water (83%), quality seeds (48%), fertilizer (40%), introduction of new irrigation systems (drip irrigation etc.) (31%), agricultural credit (29%), improvement/repair of existing irrigation system (16%), repair of tube-wells (15%), and agricultural tools and services (Figure 15).

Figure 15: Agriculture Support Required by Farming Households Overall



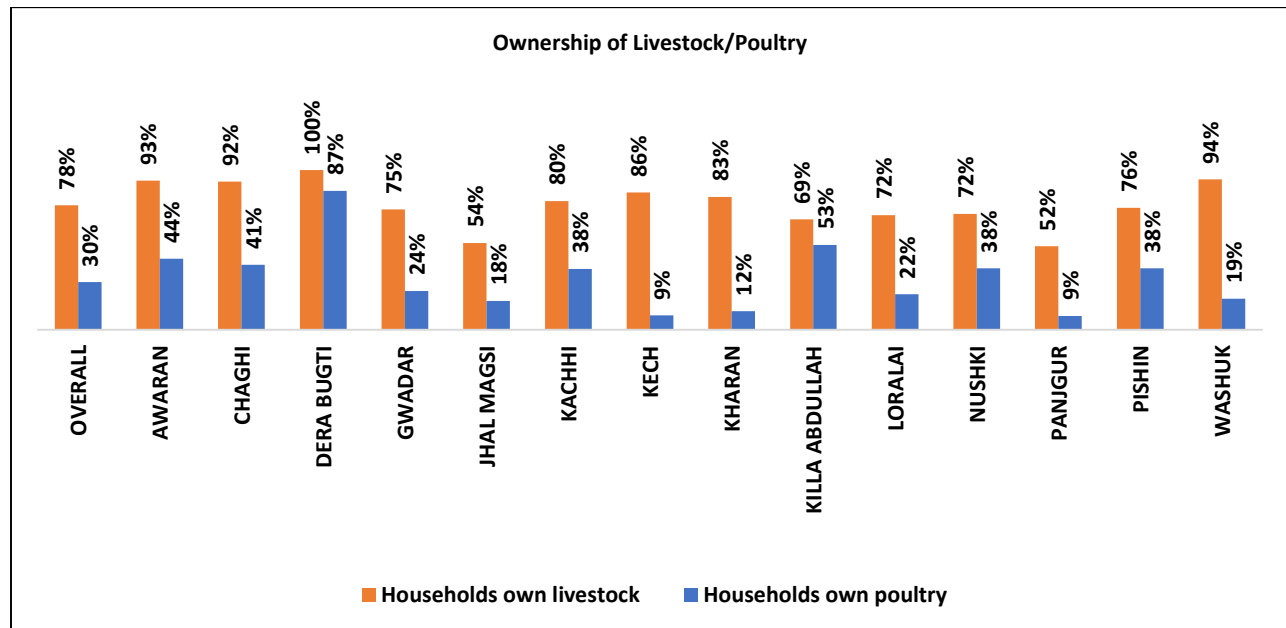
Livestock

Livestock and Poultry Ownership

Considering the geography and limited availability of agricultural land in Balochistan, the role of livestock in household economy and its contribution to sustenance and food consumption in Balochistan becomes more important. Overall, 78% of surveyed households currently own livestock whereas 30% own poultry. All surveyed households in Dera Bugti reported ownership of livestock, whereas 87% also own poultry (Figure 16). Slightly more male headed households own livestock and poultry compared with female headed households (79% men vs. 70% women own livestock, whereas 30% men vs. 28% women headed households own poultry).

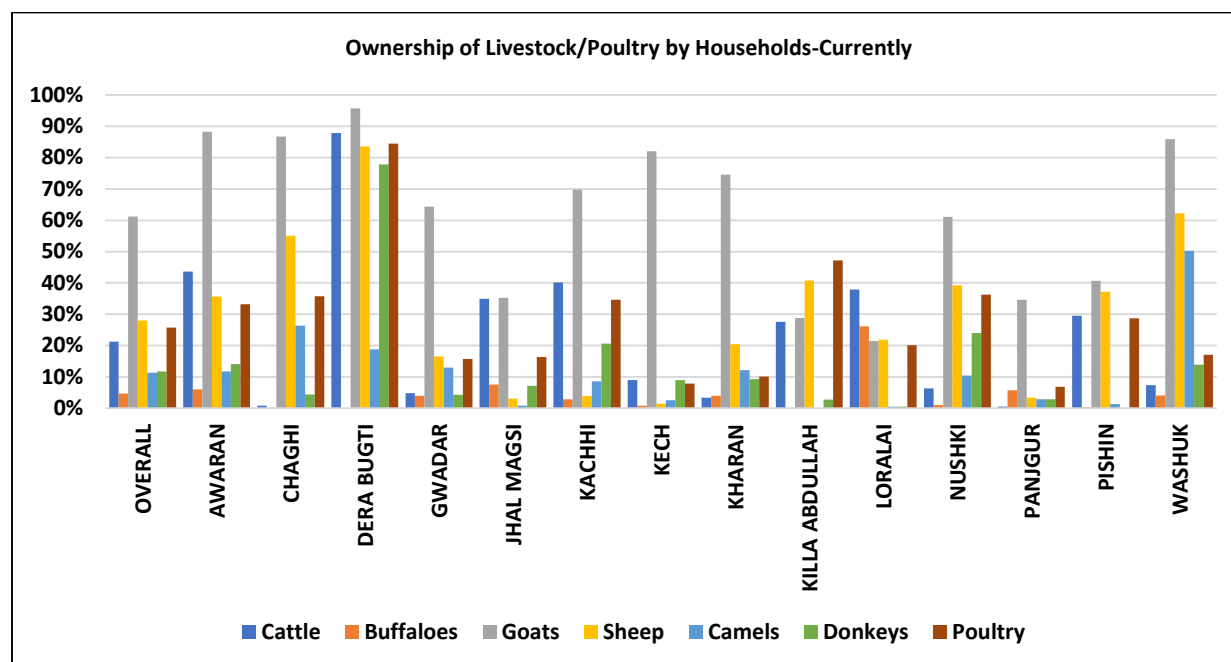
The analysis by primary sources of livelihood/income shows that of the households engaged in agriculture/livestock-based livelihoods, 84% own livestock, whereas 36% of them own poultry. Further, 78% each of non-agriculture daily wage laborers and those who earn income from other sources own livestock and 24% each own poultry. Whereas 69% and 30% of those primarily engaged in jobs/business own livestock and poultry respectively.

Figure 16: Ownership of Livestock / Poultry by District



By livestock types, overall, 21% of the surveyed households own cattle currently, (highest 88% in Dera Bugti), 5% own buffaloes (highest 26% in Loralai), 61% own goats (highest 96% in Dera Bugti), 28% own sheep (highest 84% in Dera Bugti), 11% own camels (highest 50% in Washuk), 12% own donkeys (highest 78% in Dera Bugti), and 26% own poultry (highest 85% in Dera Bugti) (Figure 17). Considerably higher proportion of male headed households compared with female headed households own all types of livestock.

Figure 17: Ownership of Livestock / Poultry by District Currently



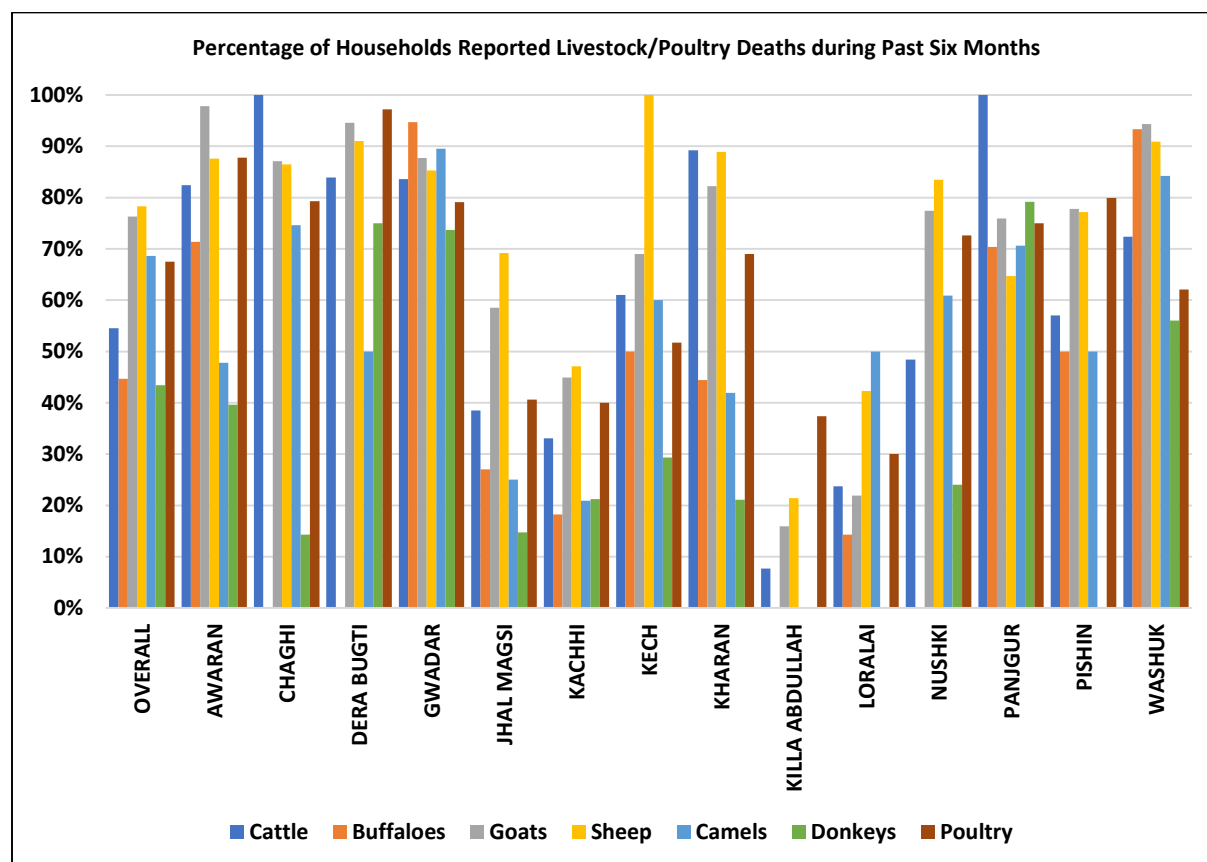
Livestock Losses

The current episode of drought has adversely affected livestock in the surveyed districts of Balochistan. Of the surveyed households who own livestock, 55% reported deaths of cattle (highest 100% each in Chaghi and Panjgur) during the past six months, 76% reported deaths of goats (highest 98% in Awaran), deaths of sheep by 78% (highest 100% in Kech), deaths of buffaloes by 45% (highest 95% in Gwadar), deaths of camels by 69% (highest 90% in Gwadar), deaths of donkeys by 43% (highest 79% in Panjgur), whereas 68% reported deaths of poultry (highest 97% in Dera Bugti) (Figure 18)¹⁴. Proportionally higher male headed households have reported deaths of all types of livestock/poultry compared with female headed households except sheep where more women reported deaths (83% compared to 78%).

Death of cattle, donkeys and poultry was reported by 60%, 52% and 75% households respectively who are dependent on agriculture/livestock-based livelihoods. Death of buffaloes reported by (65%), goats by 80%, and sheep by 86% of the households who are dependent on other sources of livelihood/income, whereas deaths of camels was reported by 79% of households engaged in non-agriculture daily labor.

¹⁴ These figures refer to percentage of surveyed households who reported death of one or more animal/poultry during past six months. As shown in previous figures, not all surveyed households owned all types of livestock.

Figure 18: Percentage of Households Reported Deaths of Livestock / Poultry during Past Six Months



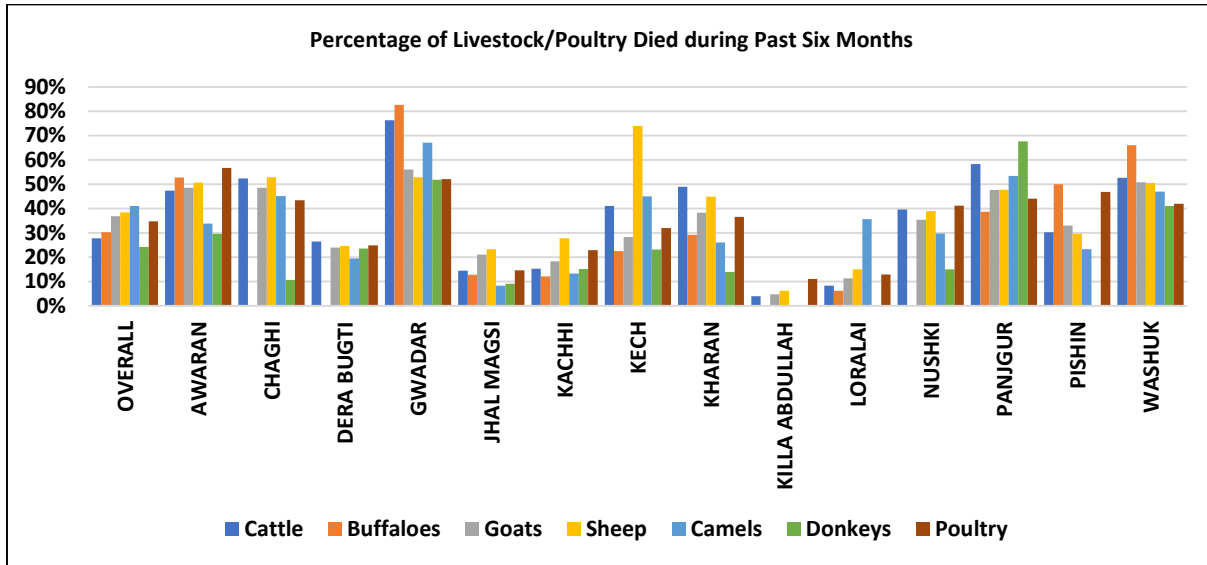
In terms of percentage of livestock and poultry died during past six months, the surveyed households that owned livestock/poultry six months ago reported, overall, 28% deaths of cattle (highest 76% in Gwadar), 30% of buffaloes (highest 83% in Gwadar), 37% of goats (highest 56% in Gwadar), 38% of sheep (highest 74% in Kech), 41% of camels (highest 67% in Gwadar), 24% of donkeys (highest 68% in Panjgur) and 35% of poultry (highest 57% in Awaran)¹⁵. The deaths/losses of animals are reported for surveyed households only and these deaths/losses occurred during the past six months preceding the survey. These numbers cannot be generalized to the entire district (Figure 19).

Further, during the past six months preceding the survey, deaths of all types of livestock/poultry except sheep occurred more among male headed households compared with female headed households. Except for camels, a higher proportion of all types of livestock/poultry died among households dependent on other sources of livelihood.

¹⁵ The percentage of livestock/poultry died has been computed only for those surveyed households which owned any animal/poultry six months ago and reported death of one or more animal/poultry died during the past six months preceding the survey.

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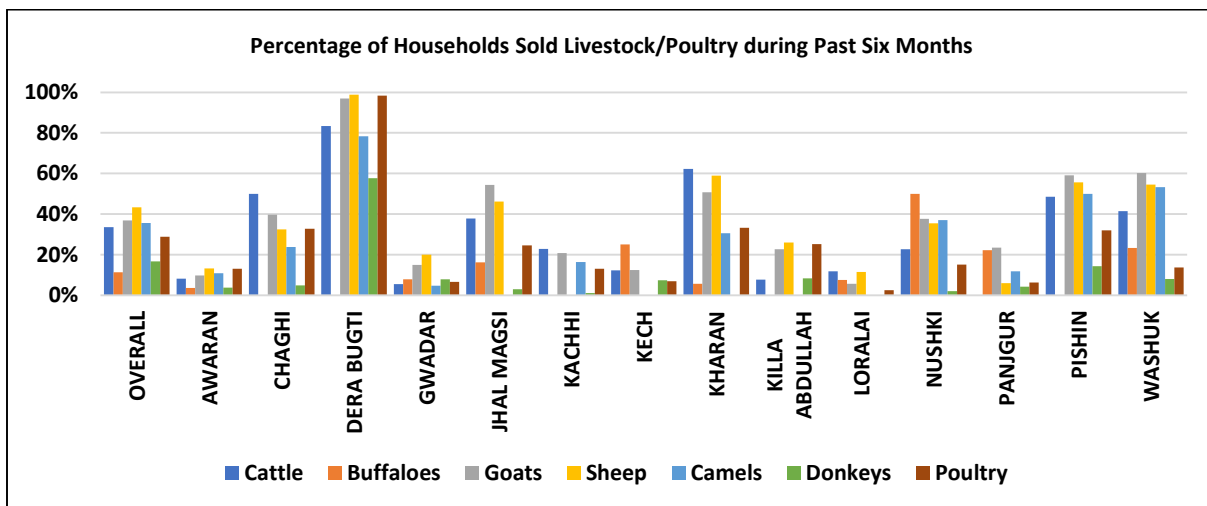
Figure 19: Percentage of Livestock / Poultry Died during Past Six Months by District



Livestock Sales

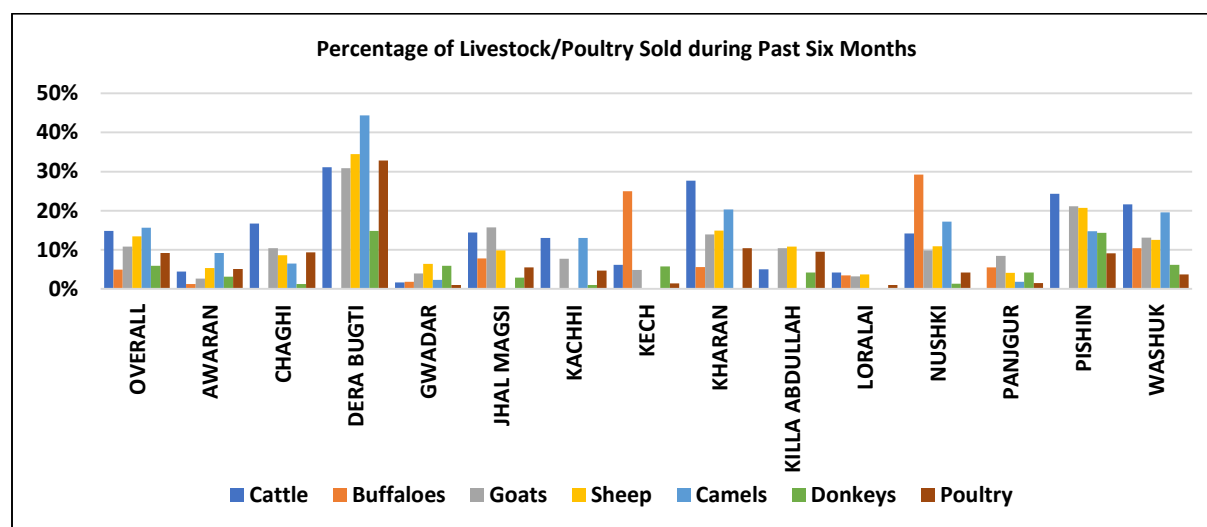
The surveyed households also reported sale of livestock/poultry to meet their food and other household needs (normal sale) and also due to occurrence/risk of disease, lack of water and fodder for livestock (distress sale). Overall, 34% of the surveyed households that keep livestock sold one or more cattle during the past six months, 11% sold one or more buffaloes, 37% sold goats, 43% sold sheep, 36% sold camels, and 17% sold donkeys and 29% sold poultry. The sale of cattle, goats, sheep, camels, donkeys and poultry has been reported mostly by surveyed households in Dera Bugti, and buffaloes by households in Nushki (Figure 20). The analysis by gender indicates that more male headed households have sold all types of livestock and poultry compared with female headed households. The sale of cattle, goats, sheep, camels, donkeys, and poultry have been reported mostly by households dependent on agriculture/livestock (respectively by 42%, 47%, 58%, 39%, 28%, and 45%), whereas sale of buffaloes by non-agriculture wage labourers (17%).

Figure 20: Percentage of Households that Sold Livestock / Poultry during Past Six Months by District



In case of percentage of livestock sold during the past six months preceding the survey, the surveyed households reported sale of 15% of cattle, 5% of buffaloes, 11% of goats, 13% of sheep, 16% of camels, 6% of donkeys, and 9% of poultry¹⁶. Across the districts, sale of cattle (31%), goats (31%), sheep (35%), camels (44%), donkeys (15%) and poultry (33%) is highest in Dera Bugti whereas sale of buffaloes (29%) is highest in Nushki (Figure 21). Furthermore, sale of all livestock has been higher among male headed households compared to female headed households except for buffaloes and poultry (equally sold by both genders). Apart from sale of buffaloes, sale of all types of livestock and poultry during the past six months was highest among households engaged in agriculture/livestock-based activities.

Figure 21: Percentage of Livestock / Poultry Sold during Past Six Months by District



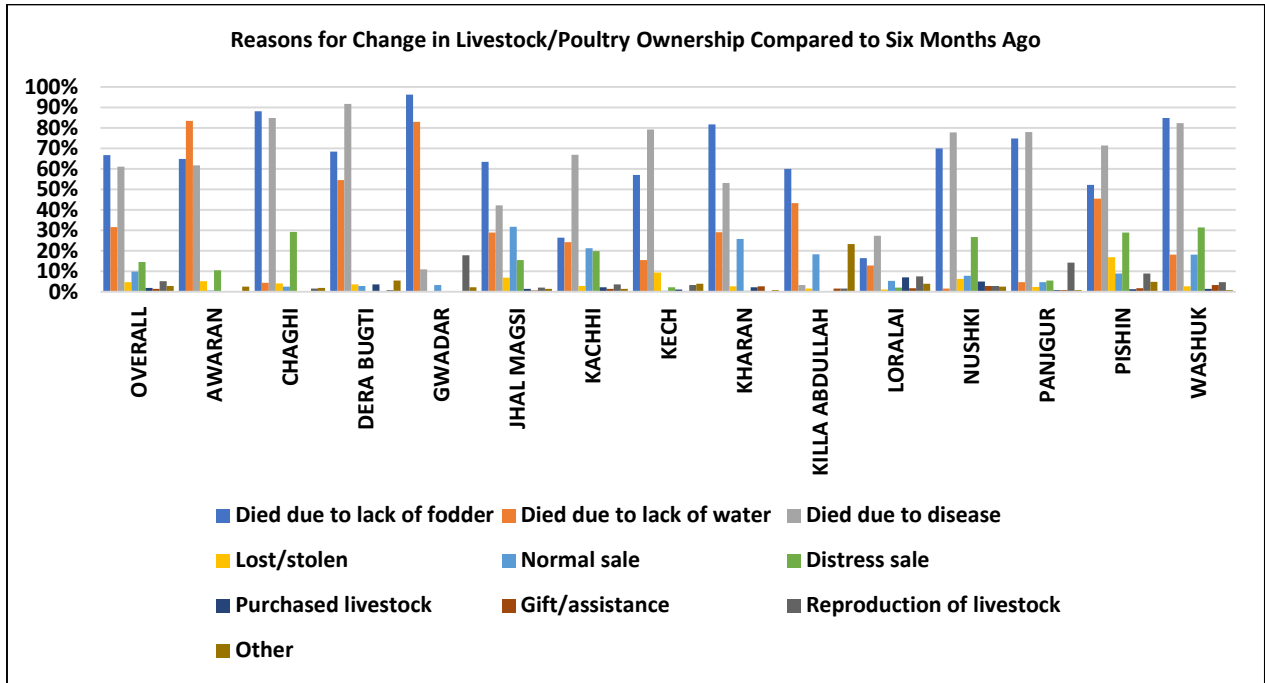
Reasons for Change in Livestock/Poultry Ownership Compared to Six Months Ago

Lack of fodder and drinking water for livestock causes livestock diseases and subsequently death of livestock. Overall, the most common reasons for death of livestock as reported by surveyed households are lack of fodder (67%), livestock diseases (61%), and lack of water (32%). The lack of fodder as a reason for livestock death was reported mostly by surveyed households in Gwadar (96%), lack of water in Awaran and Gwadar (84% and 83%), and livestock diseases in Dera Bugti (92%). Distress sale (15%) is also one of the more prominent reason for decrease in livestock (highest 32% in Washuk) (Figure 22).

¹⁶ This indicator is based on information on sale of one or more livestock/poultry reported by households during the past six months preceding the survey.

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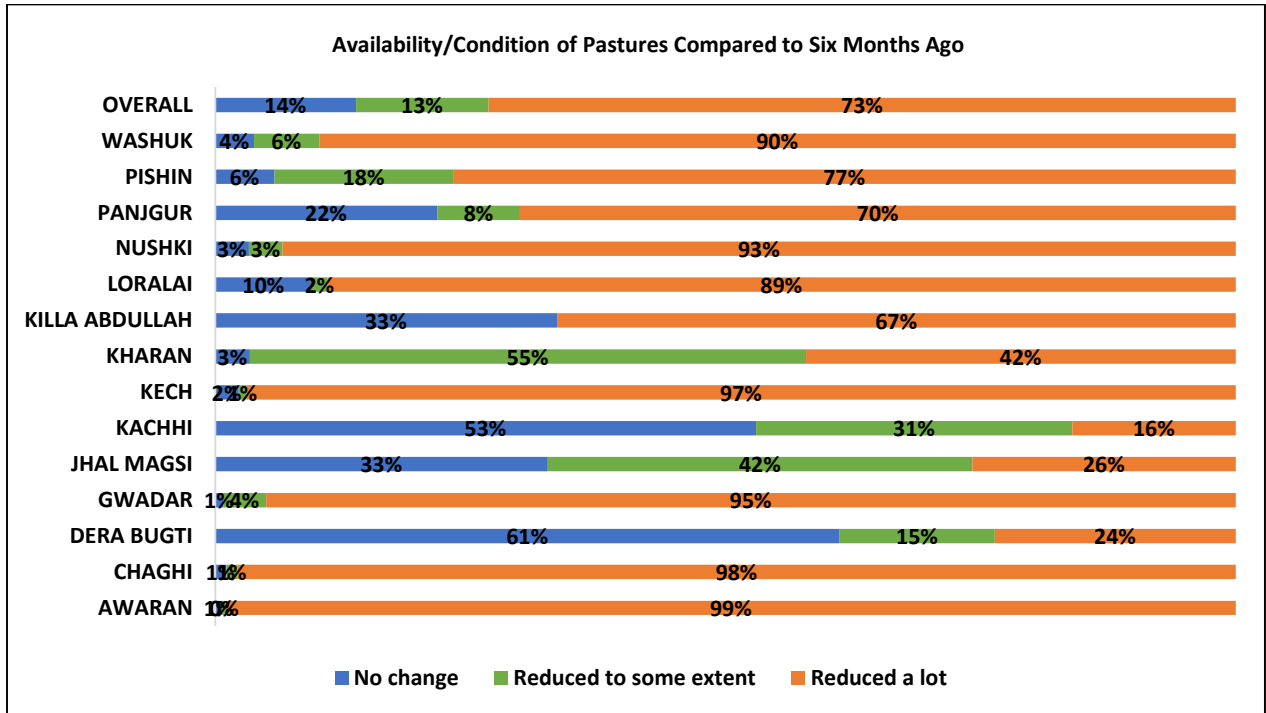
Figure 22: Reason for Change in Livestock / Poultry Ownership Compared to Six Months Ago by District



Availability of Pastures Compared to Six Months Ago

The current episode of moderate to severe drought has also negatively impacted pastures in the surveyed districts. Almost three-fourths of livestock holders reported pastures have reduced a lot, whereas around 13% each reported either no change or reduction to some extent. Over 90% of livestock holders in Awaran, Chaghi, Gwadar, Kech, Nushki and Washuk reported a high reduction in pastures compared to six months ago (Figure 23).

Figure 23: Availability/Condition of Pastures Compared to Six Months Ago by Districts

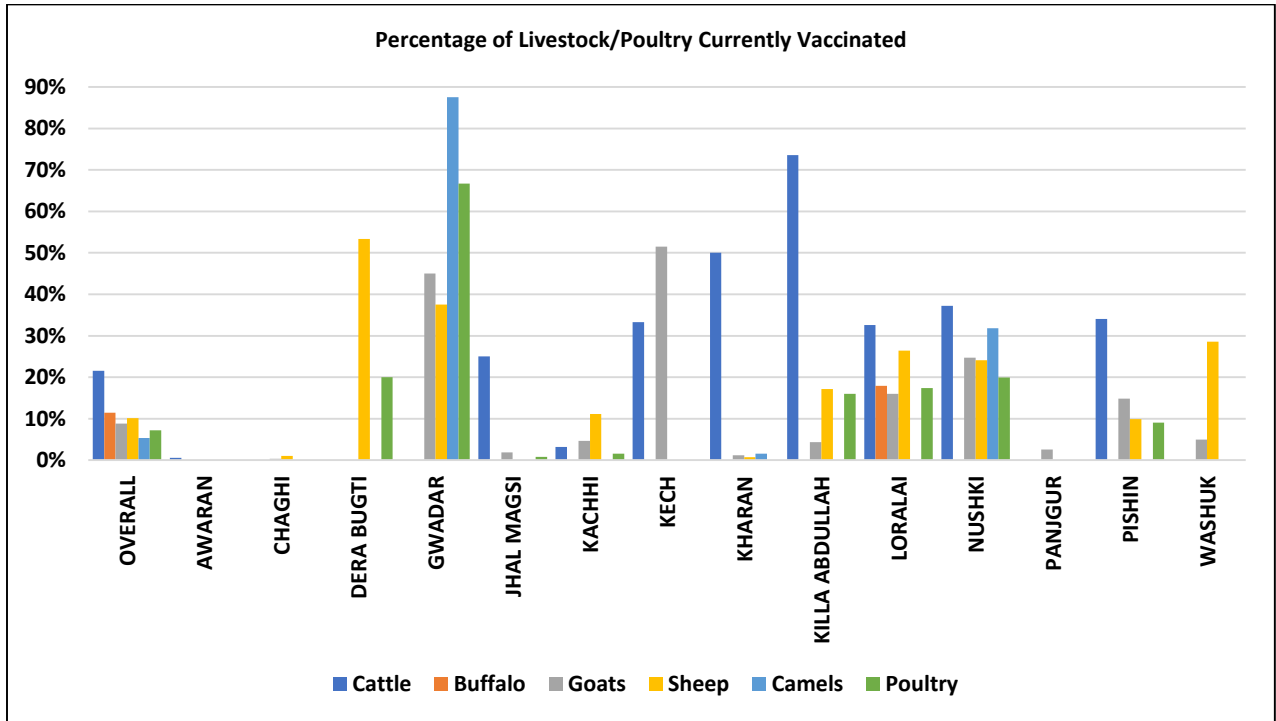


Current Status of Vaccination of Livestock/Poultry

Vaccination of livestock/poultry is important to protect them from risk of diseases during the drought. Currently, overall a very low proportion of livestock/poultry has been vaccinated: around 22% of cattle, 11% of buffaloes, 9% of goats, 10% of sheep, 5% of camels and 7% of poultry birds. With the exception of Gwadar, Loralai, Nushki and Pishin, the remaining districts have very low proportion of livestock that is currently vaccinated. Across the districts, the proportion of vaccinated cattle is lowest in Awaran (1%), for goats it is lowest in Kharan (1%), for sheep it is lowest in Kharan & Chaghi (1%), for camels it is lowest in Kharan (2%), for poultry it is lowest in Jhal Magsi (1%) and buffaloes are only vaccinated in Loralai at 18% (Figure 24). With the exception of camels, the proportion of all types of livestock currently vaccinated is lower among female headed households compared to male headed households.

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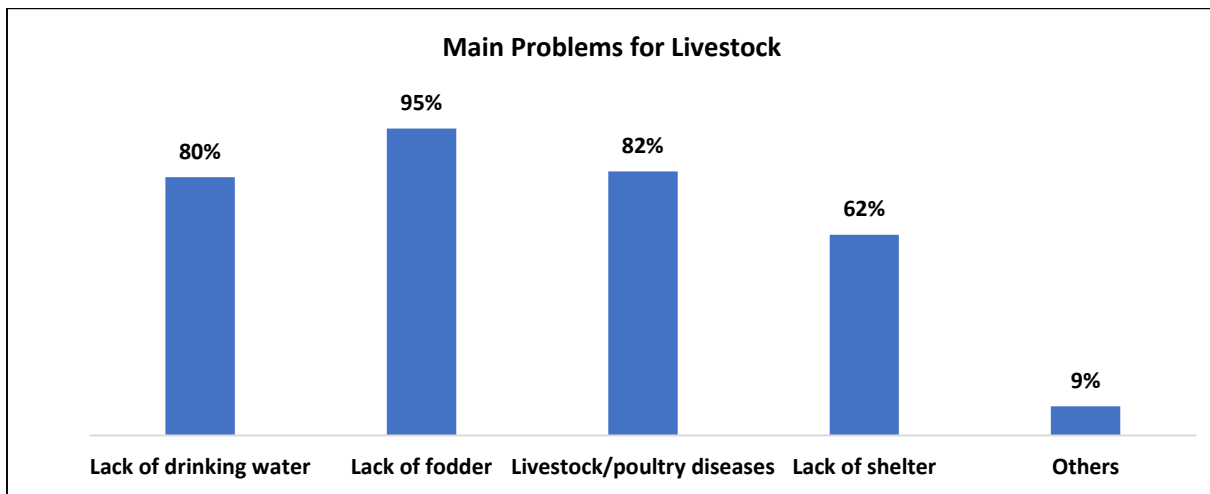
Figure 24: Percentage of Livestock / Poultry Currently Vaccinated by District



Problems Faced by Livestock Owners

The current episode of drought has had an impact on access to livestock inputs and caused problems to in terms of protection of current herds. An overwhelming majority (95%) of livestock holders reported lack of fodder for animals, 82% reported livestock/poultry diseases, 80% reported lack of drinking water for animals, and 62% reported lack of shelter for animals as significant problems (Figure 25).

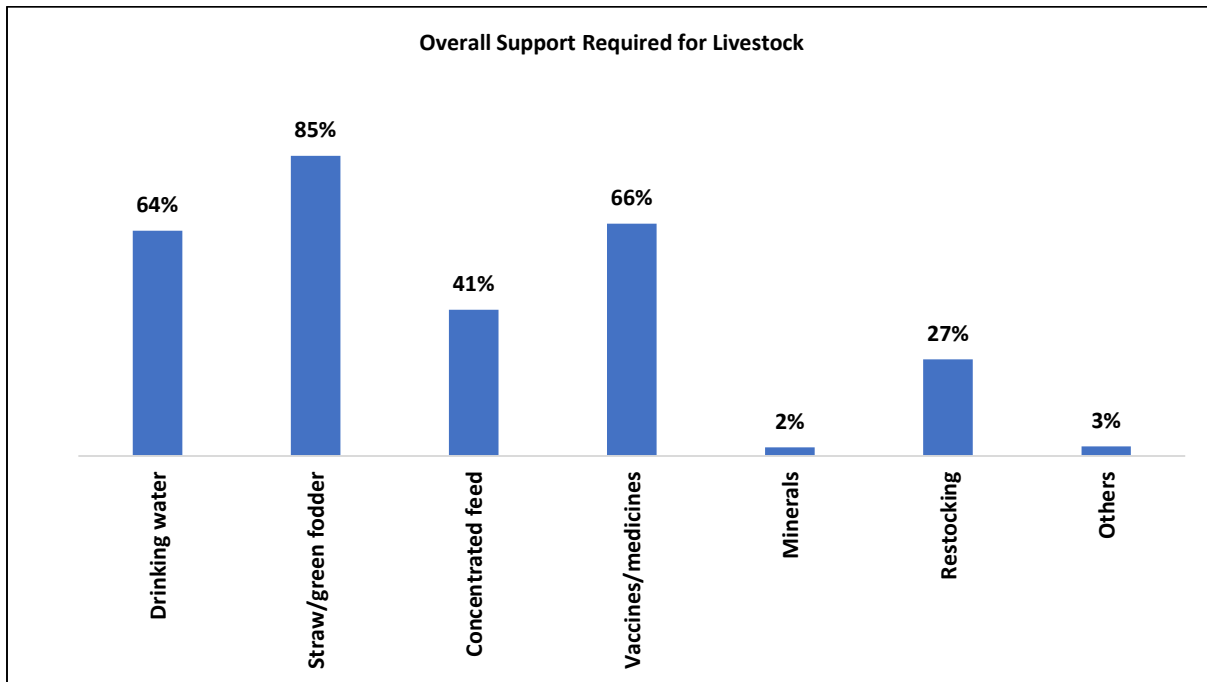
Figure 25: Main Problems for Livestock



Livestock Support Needed by Livestock Owners

The top five items/support required by livestock holders (in order of importance) are: straw/green fodder (by 85% livestock holders), vaccines/medicines (by 66%), drinking water (by 64%), concentrated feed (by 41%), and livestock re-stocking (by 27%) (Figure 26).

Figure 26: Overall Livestock Support Required



Household Assets Ownership, Livelihood/Income Sources and Food Expenditure

Assets Ownership

Assets owned by a household can reflect general living conditions and can help assess their coping capacity, purchasing power, allowing for comparisons in poverty levels. The aim of calculating asset ownership as part of this drought assessment was to evaluate the situation within households in drought affected districts.

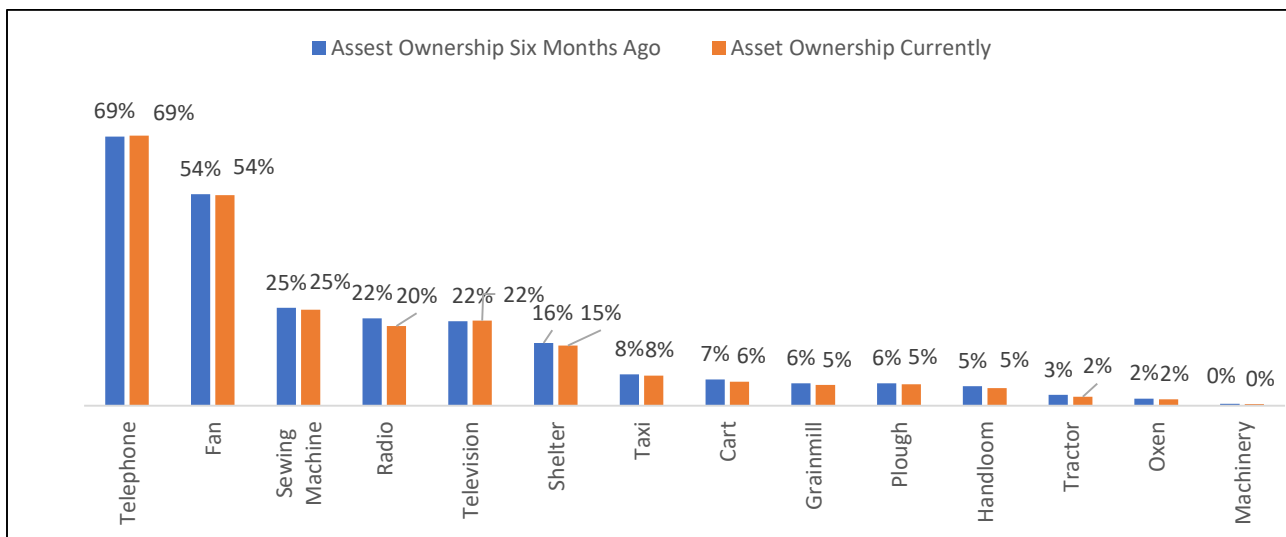
Current Asset Ownership Comparison with Past Six Months- Overall

Current asset ownership status of the surveyed households was compared with their situation 6 months ago to observe any changes in asset ownership. In particular, the data was collected to check adoption of negative coping strategies, specifically sale of household assets to meet household expenditure needs. As per data collected, the situation at the time of assessment almost remains the same as it was 6 months ago and, neither trends of asset sale to fulfil household needs nor buying new assets was observed. Only marginal (1 -2%) changes were reported, particularly for non-productive assets including radio, cart, and some productive assets such as grain mill, plough, and tractor.

The graph below represents the overall asset ownership status in the communities surveyed. While comparing the productive assets with non-productive, fewer households (2 - 8%) reported to have productive assets like taxi, cart, grain mill, plough, handloom, tractor, oxen etc., while 25% reported having sewing machines.

When asked about non-productive assets, maximum ownership was reported for mobile phones (69%), while 54% confirmed owning electric fans, and 22% confirmed ownership of televisions and radios in their houses. Non-ownership of fans with 46% of the households could be due to lack of electricity or non-affordability of an essential item for household comfort (Figure 27).

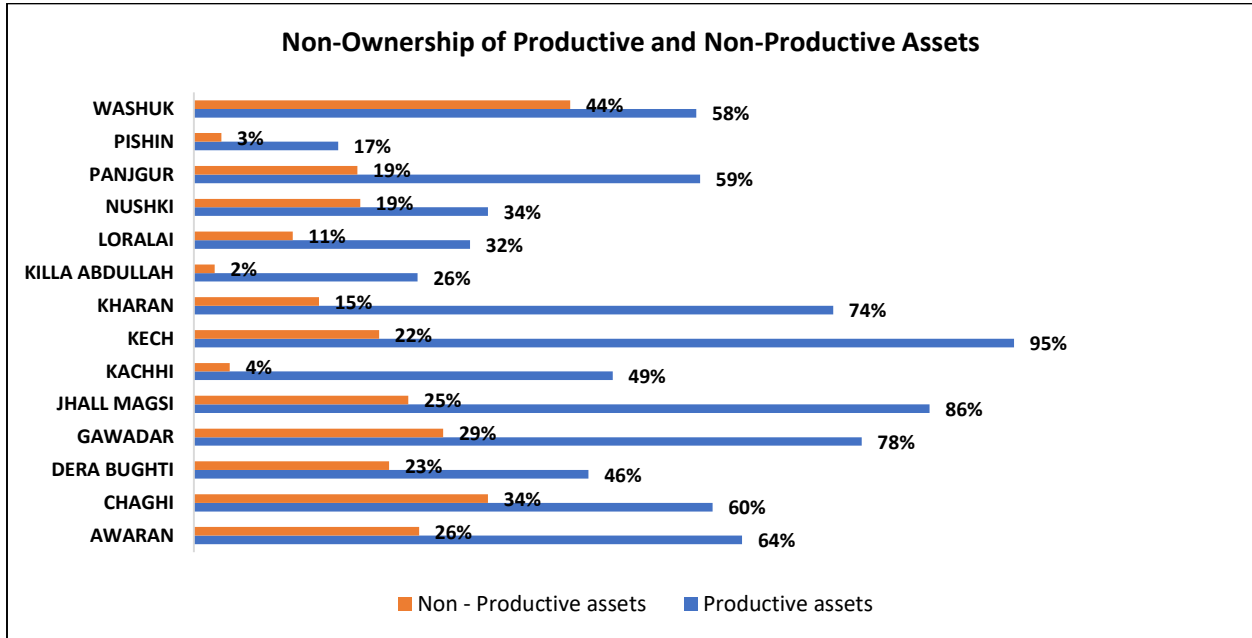
Figure 27: Asset Ownership- Current and Six Months Ago



Current asset ownership – District wise

Asset ownership has not changed for the last six months in any of the assessed districts. The graph below shows the percentage of households that reported non-ownership of assets. While comparing productive assets versus non-productive assets, the majority of the households among all districts don't own productive assets. The graph below represents a district-wise analysis of household ownership of productive and non-productive assets (Figure 28).

Figure 28: Non-Ownership of Productive and Non-productive Assets by District



Livelihood sources

Surveyed households were also asked questions related to their primary source of income. Overall, agriculture and livestock related activities were reported by most of the responding households (32%). Almost same number of households (31%) were relying on more unsustainable income sources through day labor activities. Whereas 27% of the households reported steady income sources (regular job, professional work like doctor, lawyer etc. or some business/trade activities). Overall, 10% of the households reported relying on some other income sources including remittances, reliance on charity/assistance including BISP support, or home-based work like handicraft (Figure 29).

Among the districts, in Dera Bugti 99% of the households depend on agriculture and livestock, whereas in Loralai 52% depend on the same, and in Awaran the figure is at 50%. In Chaghi 56% of the households depend on non-agricultural wage labor/unskilled daily casual labor, at Kech this is at 53%, in Washuk at 53%, Gwadar 44%, and Jhal Magsi 42%. In Killa Abdullah 63% of the households depend on jobs and business as their primary source of income, whereas in Pishin the figure is at 44%, and in Panjgur at 43%.

Figure 29: Primary Source of Livelihood

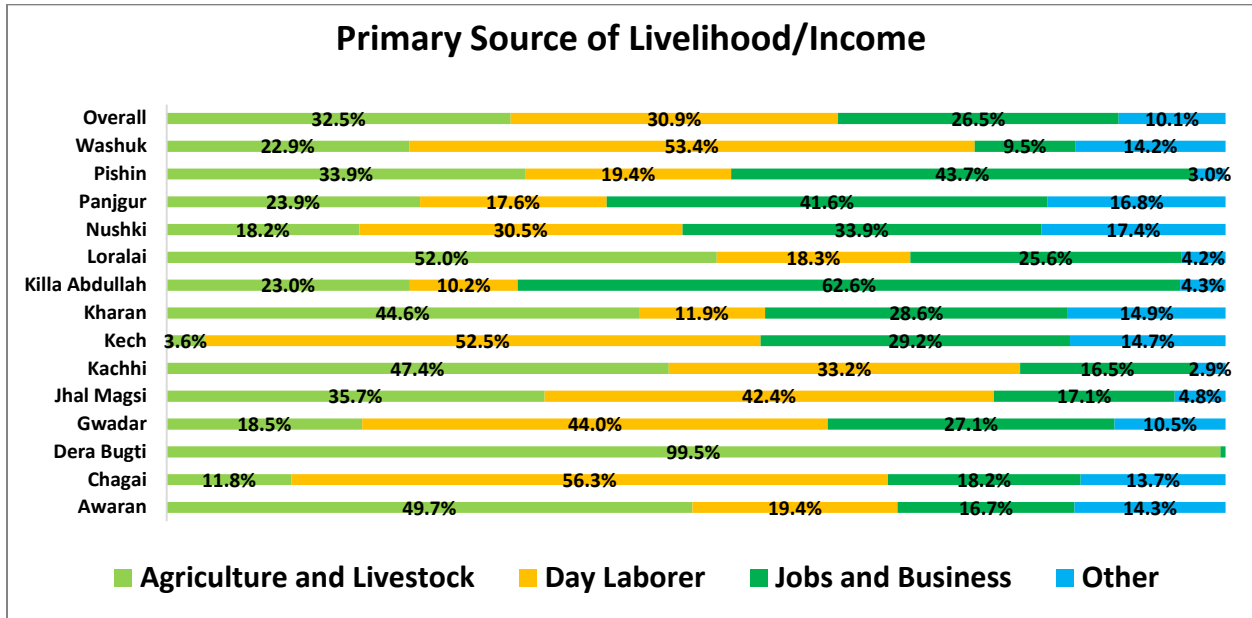
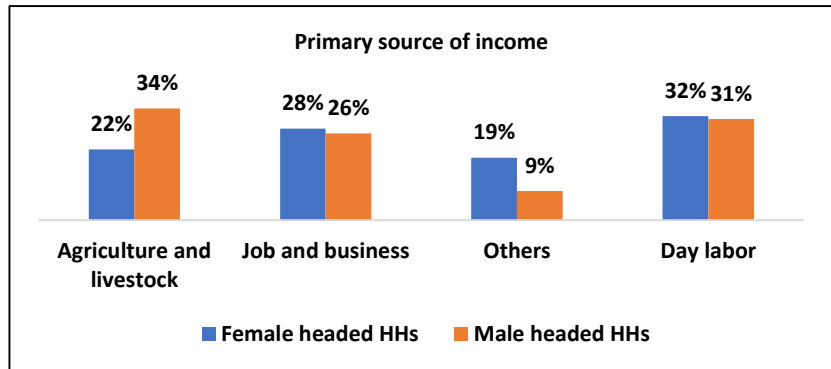


Figure 30: Primary Source of Income by Household Head Gender

When comparing results by the gender of the household head, a higher proportion of male headed households were earning livelihood from agriculture/livestock related activities whereas a higher proportion of female headed households were relying on non-agricultural sources of income (jobs and business, non-agriculture day labor and others).



Around two thirds of the households reported that they have at least one additional income source to support their basic needs. For example, 21% of the households reported some additional subsistence agriculture or livestock as an additional income source. Similar to this, 16% of the households also mentioned non-agriculture day labor as a secondary income source. Furthermore, 15% households have some trade or job-related secondary income source, whereas 36% of the surveyed households reported that they don't have any additional income source and hence, have to rely on one source only.

Overall, in one household 1.5 household members were involved in income earning. This proportion was slightly higher in the districts of Washuk, Awaran, Kech and Pishin, as well as among those households who mentioned day labor as a primary source of income. One in every ten households relied on income of female household members. Such households reported handicraft work, patty trade, and agriculture/livestock as the women's sources of income.

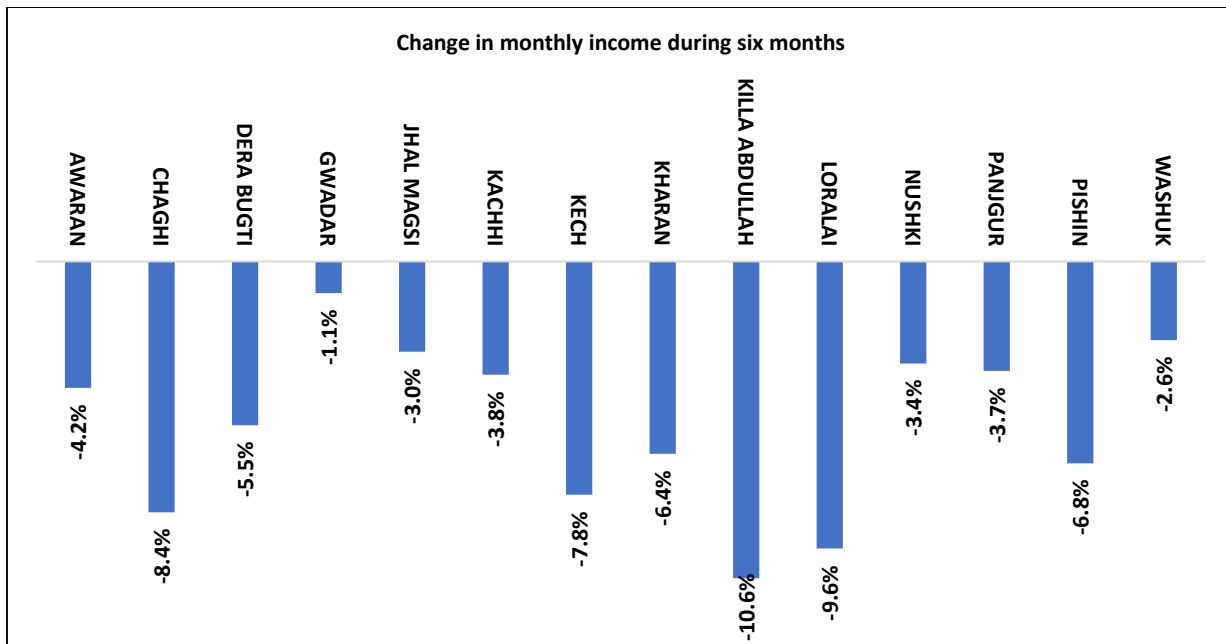
Out of the above-mentioned income sources, agriculture and livestock sector can be directly affected from drought like situation due to reduced water for agriculture, abandoned grazing land, lack of fodder/water for livestock, and increased livestock morbidity. Reduced agriculture productivity also limits the productivity of the business sector, as many of the businesses in such rural areas rely on the agriculture sector.

Household income level

The surveyed households were asked about their monthly income, a month prior to the assessment as well as six months prior to the assessment. As per the findings, average monthly income of a household was **PKR 20,300**. However, there were high variations in income level. For example, 10% of the households reported income levels less than PKR 5,000 and 35% have income levels less than PKR 10,000. Income levels were slightly higher in Kech, Kacchi, Jhal Magsi and Pishin, whereas they were slightly lower in Loralai, Panjgur, Awaran and Kharan. Female headed households had slightly less income levels compared to male headed households. Similarly, people relying on external support or home-based activities have relatively lower income levels.

When comparing income levels currently vs six months prior, **overall a 5.5%** reduction in income level was reported. High reduction in income level was reported from the districts of Killa Abdullah (10.6%), Loralai (9.6%), Chaghi (8.4%), and Kech (7.8%).

Figure 31: Change in Monthly Income During Past Six Months

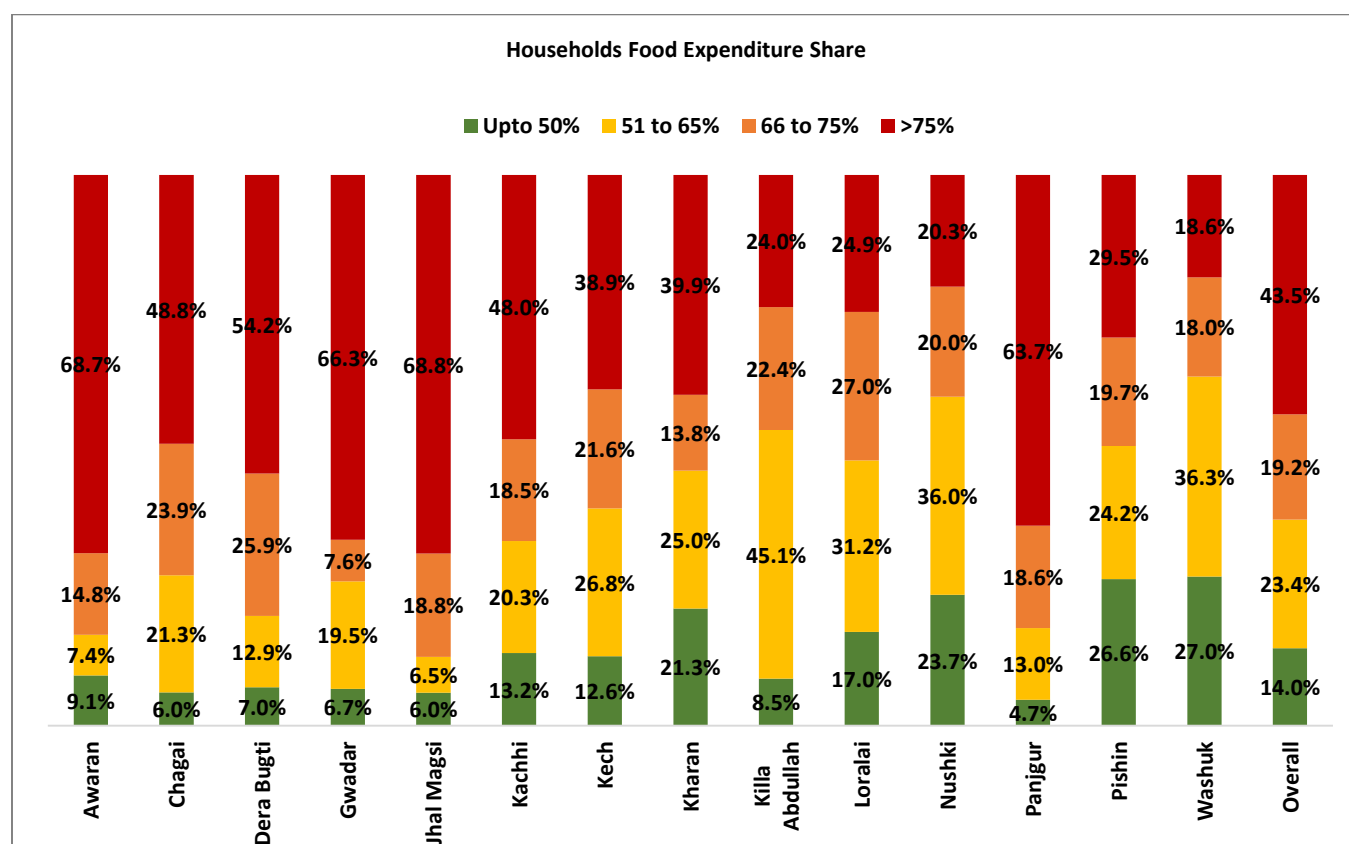


Food expenditure share¹⁷

The share of food expenditure out of total expenditure is a proxy indicator of household food access. The households were asked about their food and non-food expenditures in the last month prior to the survey. Overall, 44% of the households spend a very high share (more than 75 percent of the total household expenditure) on acquiring food. Whereas 19% households spend a high share (65-75 percent of the total expenditure) on food. Among districts 69% of households in both Jhal Magsi and Awaran, Gwadar 66%, Panjgur 64%, and Dera Bugti 54% are spending very high (>75%) or high (66% to 75%) share of total expenditure on food.

The survey findings indicate that the households are spending major proportion of their income on food purchases and hence compromising on other basic needs (health care, education, others) to meet their immediate food needs, resulting in the apparently improved current food consumption. However, from a longer-term perspective, they remain economically vulnerable, have lower resilience to cope and recover from major shocks (Figure 32)

Figure 32: Households Food Expenditure Share by Districts



17 "The share of food expenditure of total household expenditure is a proxy indicator of household food access. The commonly used thresholds for the share of food expenditure are used to classify households into 4 food expenditure groups in line with CARL is: Low equivalent to food secure (<50%); Medium, equivalent to marginally food secure (50 to 64.9%); High equivalent to moderately food insecure (65 to 74.9%); Very high equivalent to severely food insecure (>=75%).

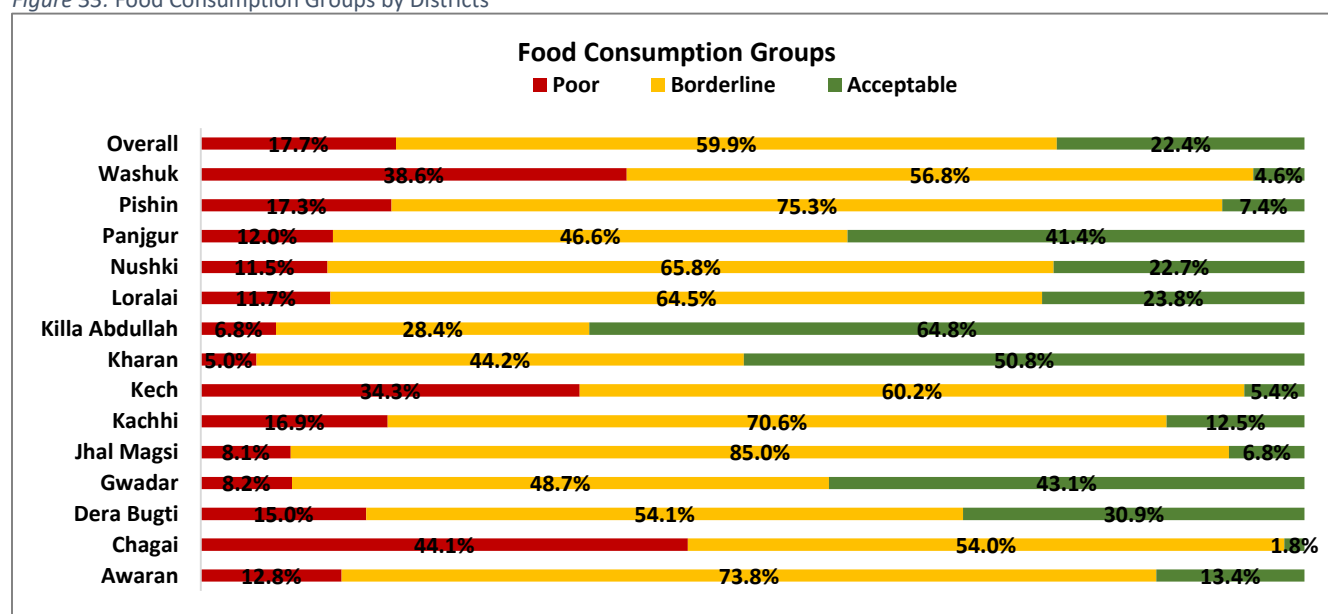
Food Security

Food consumption Score

The Food Consumption Score (FCS¹⁸) a proxy indicator of current food security is a composite score based on dietary diversity, food frequency and relative nutritional importance of various food groups consumed at the household's level. The higher the FCS, the higher is the dietary diversity and frequency. High food consumption increases the possibility that a household achieves nutrient adequacy. The FCS is used for monitoring economic access to food and classifying households who are food insecure.

The assessment revealed that overall, around **22%** of households have 'acceptable food consumption', **18%** have 'poor consumption' and another **60%** have 'borderline consumption'. It should be noted that FCS is based on the frequency of different food groups consumed in a seven-day recall period, and does not capture the quantity and number of calories consumed. Analysis by district shows that Chaghi has the worst food consumption situation, where 44% of the surveyed households have poor and 54% have borderline consumption. The situation in other districts has also deteriorated; Washuk (39% poor, 57% borderline), Kech (34% poor, 60% borderline), Jhal Magsi (8% poor, 85% borderline), Pishin (17% poor, 75% borderline), and Kachhi (17% poor, 71% borderline). While in Awaran (34% poor, 60% borderline), Nushki (11% poor, 66% borderline), Loralai (12% poor, 64% borderline), Panjgur (12% poor, 47% borderline), and Dera Bugti (15% poor, 54% borderline) the situation is comparatively better for poor consumption but still not good for borderline groups. In the remaining districts the corresponding figures are Killa Abdullah (7% poor, 28% borderline), Kharan (5% poor, 44% borderline), and Gwadar (8% poor, 49% borderline) (Figure 33).

Figure 33: Food Consumption Groups by Districts



¹⁸ FCS Consumption Score (FCS) is an acceptable proxy indicator giving an indication of food security status of the household if combined with other household access indicators. Based on a seven-day recall of the food groups consumed within a household, the FCS measures food diversity (types of foods consumed), food frequency (the number of days each food group is consumed), and the relative nutritional importance of different food groups. The score for each food group is calculated by multiplying the number of days the commodity was consumed and its relative weight. The FCS is a weighted sum of food groups. Based on FCS standard thresholds, households are categorized into three groups: "poor" food consumption (FCS=1-28), "borderline" food consumption (FCS = 28.1-42), and "acceptable" food consumption (FCS>42).

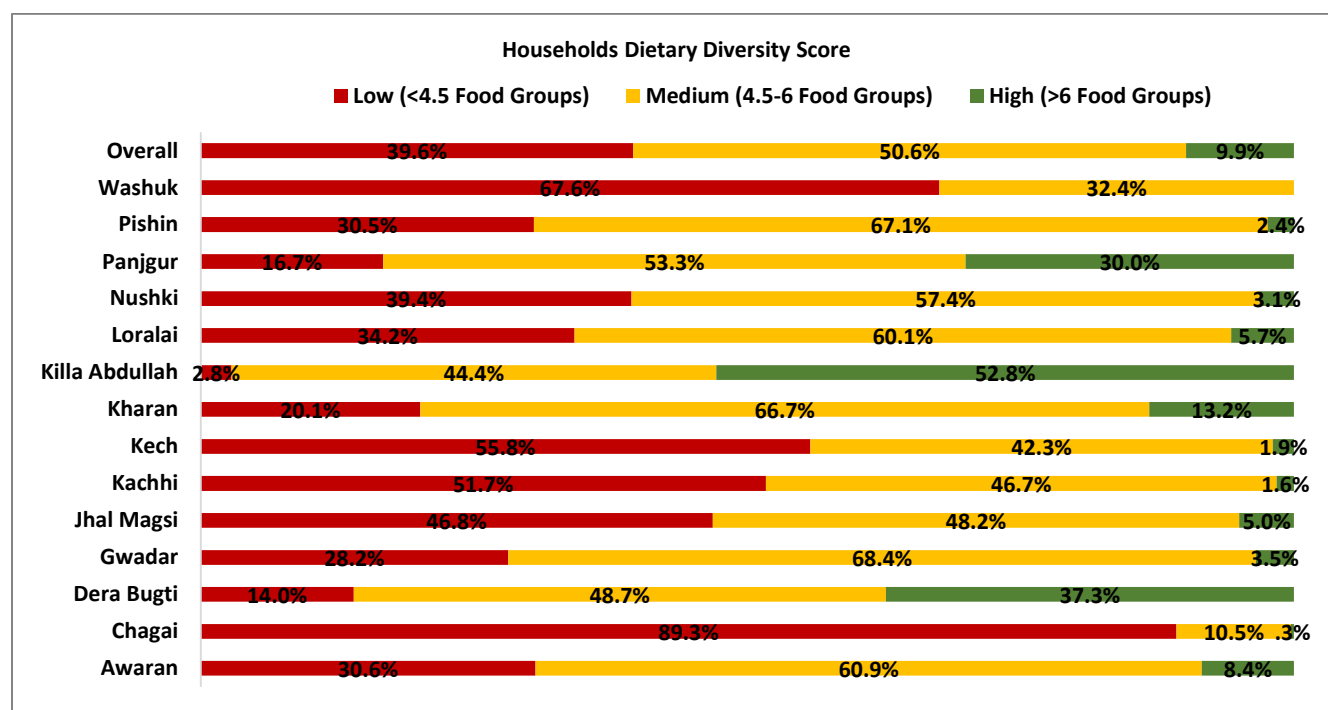
Household Dietary Diversity Score¹⁹

The share of different food items for an individual's energy intake has important implications for overall health and wellbeing. A high proportion of energy derived from staple cereals is an indication of poor dietary diversity, while those with better dietary diversity likely have a lower proportion of their total energy from staple cereals and consume foods that are more nutritious.

The diet of the surveyed households is not only quantitatively inadequate, but also qualitatively poor and heavily cereal-based. The Households Dietary Diversity has been computed using two different methodologies. The Diet Diversity Score (DDS) of the households based on 7 food groups (i.e., excluding sugar/sweet from 8 groups used in FCS module) consumed at the household level during the past 7 days recall period as well as HDDS based on one-day (24 hours) recall and 12 food groups.

Overall, the proportion of all surveyed households with low dietary diversity was 39.6%, while that of medium diet diversity was 50.6%. Among districts, 89% households in Chaghi, 68% in Washuk, 56% in Kech, and 52% in Kacchi district have 'low dietary diversity'(Figure 33).

Figure 33: Households Dietary Diversity Score

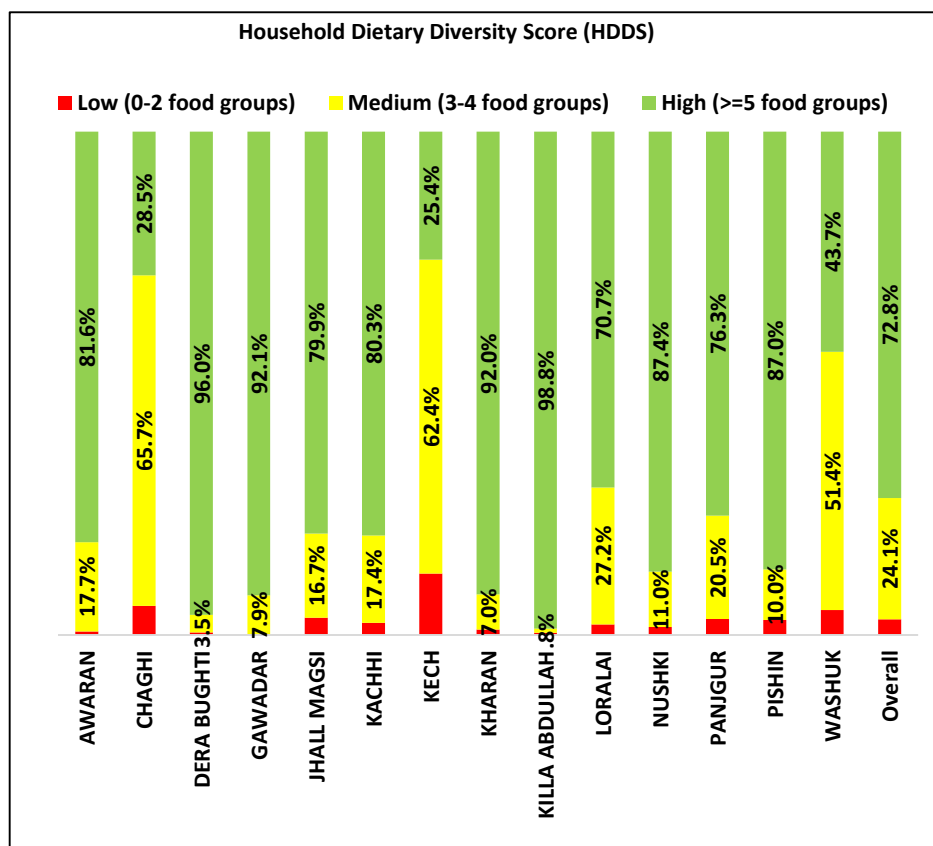


According to the Households Dietary Diversity Score (HDDS) 24 hours recall and 12 food groups, about **73%** of the surveyed households have High (consuming more than 5 good groups), **24%** have Medium (consuming 3-4 good groups) whereas only about **3%** households have Low (consuming 0-2 food groups) Dietary Diversity Score (Figure 34).

19 The Diet Diversity Score(DDS) measures how many food groups out of 7 groups (i.e., excluding sugar/sweet from 8 groups used in FCS module) are consumed on average over a 7-dayperiod. DDS is not an average for one day. The indicator results in the sum of the number of consumed food groups (from 0 to 7). Based on DDS, dietary diversity is ranked in 3 groups: Low diet diversity (DDS is less than 4.5), Medium (DDS= 4.5 - 6), and High (DDS is above 6).

Figure 34: Household Dietary Diversity (based on 12 food groups consumed by the household during past 24 hours recall period)

District wise findings reveal Kech, Chaghi and Washuk are the districts where more than half of the surveyed households have Medium (consuming 3-4 food groups) dietary diversity score.



Prevalence of Moderate and Severe Food Insecurity

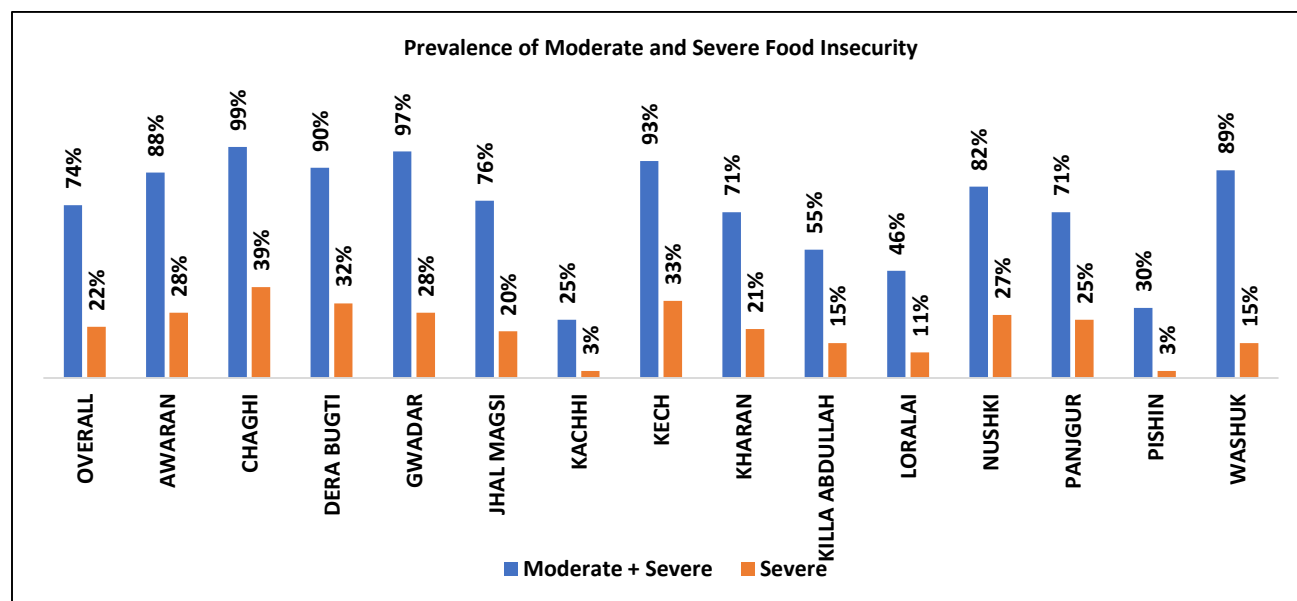
The Food Insecurity Experience Scale (FIES)²⁰ is a food security measurement scale composed of eight questions to evaluate the level of food insecurity experienced by households. The responses report on the occurrence of experiences and conditions that are typically associated with food insecurity. The experiences and conditions are that household members: were worried about not having enough food to eat, did not eat healthy and nutritious food, ate few kinds of food, skipped a meal, ate less food, households ran out of food, household members were hungry but did not eat food and did not eat food the whole day. Respondents were asked to report if each of the conditions has been experienced over the past 12 months, because of a lack of money or other resources to obtain food.

The analysis shows that overall **74%** of the surveyed households are moderately or severely food insecure, whereas **22%** are severely food-insecure (Figure 35). The analysis by districts shows that prevalence of moderate or severe food insecurity is highest among surveyed households in Chaghi (99%) where almost every surveyed households is food insecure, followed by Gwadar (97%), Kech (93%), Dera Bugti (90%), Washuk (89%) and Awaran (88%), whereas prevalence is the lowest (25%) in Kacchi. The prevalence of severe food insecurity is also highest in Chaghi (39%), followed by Kech (33%), Dera Bugti (32%), Awaran

²⁰ The Food Insecurity Experience Scale (FIES) developed by FAO is used to compute Sustainable Development Goal (SDG) indicator 2.1.2: the prevalence of moderate or severe food insecurity in the population.

and Gwadar (28%) and Nushki (27%), whereas prevalence is the lowest (3%) in both Kacchi and Pishin districts.

Figure 35: Prevalence of Moderate and Severe Food Insecurity based on FIES by District



Household Hunger Scale

The Household Hunger Scale (HHS)²¹ assesses whether households have experienced problems in accessing food during the preceding 30 days based on three questions and measures the severity of hunger in the past 30 days, as reported by the households²².

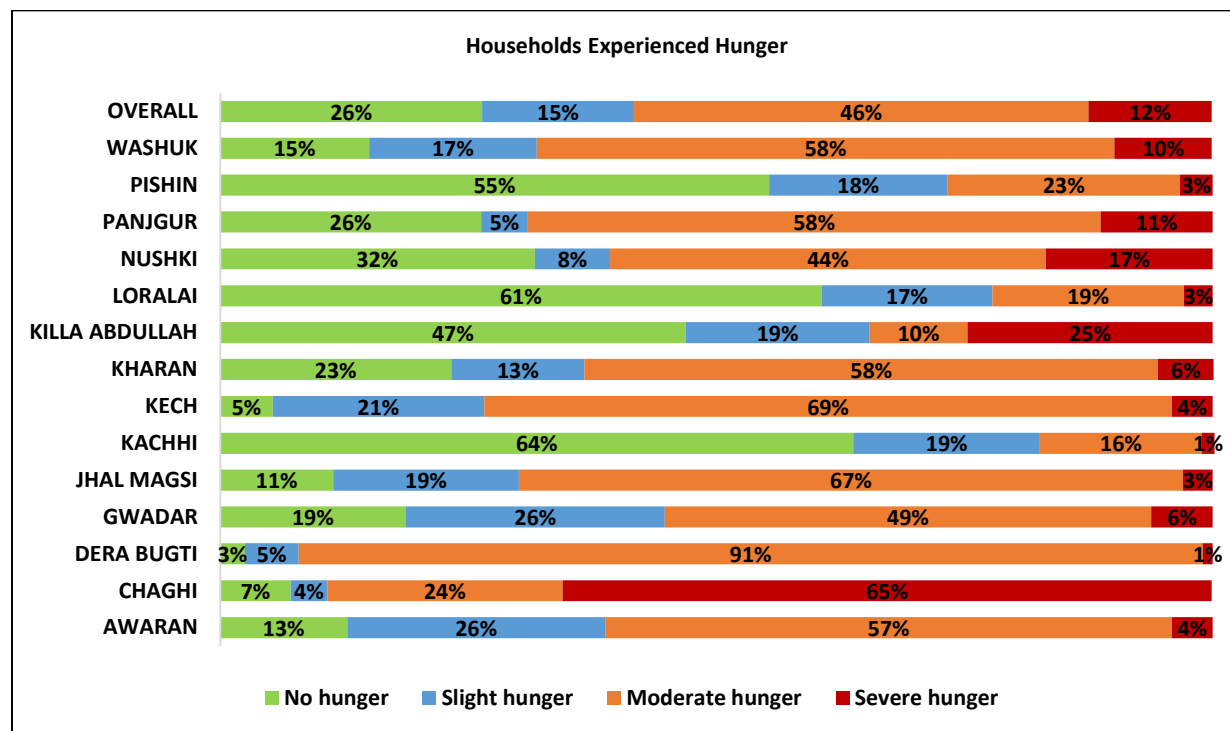
Based on the HHS, **26%** of the surveyed households did not experience hunger during the past 30 days preceding the survey (highest 64% in Kacchi), **15%** experienced slight hunger (highest 26% in Awaran and Gwadar), **46%** experienced moderate hunger (highest 91% in Dera Bugti), whereas **12%** experienced severe hunger (highest 65% in Chaghi) (Figure 36).

²¹ The Household Hunger Scale has been developed by Food and Nutrition Technical Assistance (FANTA) based on perceptions of food insecurity at household levels.

²² As per methodology of HHS, four categories are commuted: no hunger (HHS=0), slight hunger (HHS=1-2), moderate hunger (HHS=2-3) and severe hunger (HHS= 4-6).

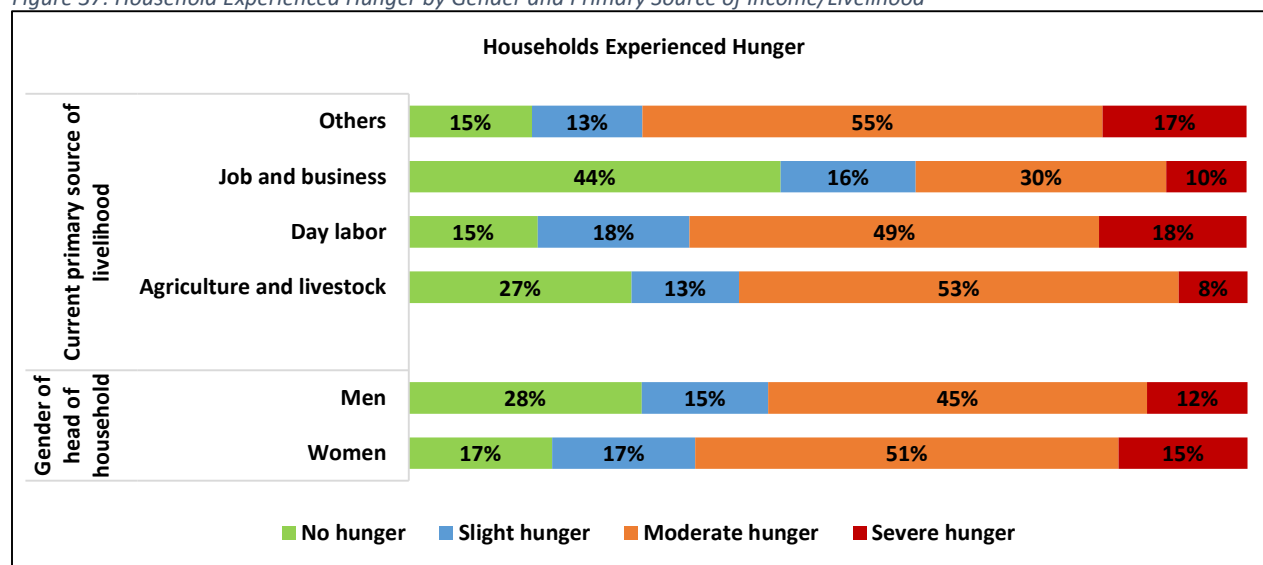
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Figure 36: Households Experiencing Hunger Measured by Household Hunger Scale by Districts



Prevalence of moderate/severe hunger is higher among households headed by females (66%) than among male headed households (57%). The analysis by households' primary livelihood/income sources indicates that households earning livelihood/income from other sources have the highest prevalence of moderate/severe hunger (72%) followed by non-agriculture daily wage labor (67%); agriculture/livestock-based livelihoods (61%), whereas the lowest prevalence of moderate/severe hunger was reported by those engaged in jobs/businesses/professional services (40%) (Figure 37).

Figure 37: Household Experienced Hunger by Gender and Primary Source of Income/Livelihood



Food Security Rate based on CARI

The food security prevalence rate is also analyzed by applying the Consolidated Approach to Reporting Indicators of Food Security (CARI)²³, which composites two important dimensions of household food security, namely food consumption and coping capacity. The former is an indicator of current food security, and the latter is a combined result of the food expenditure share (an indicator of economic vulnerability) and livelihood coping. According to the findings of the survey, overall **15%** households are found to be **‘severely food insecure**, whereas **56%** are **‘moderately food insecure’**.

Figure 38: Overall Food Insecurity Rate

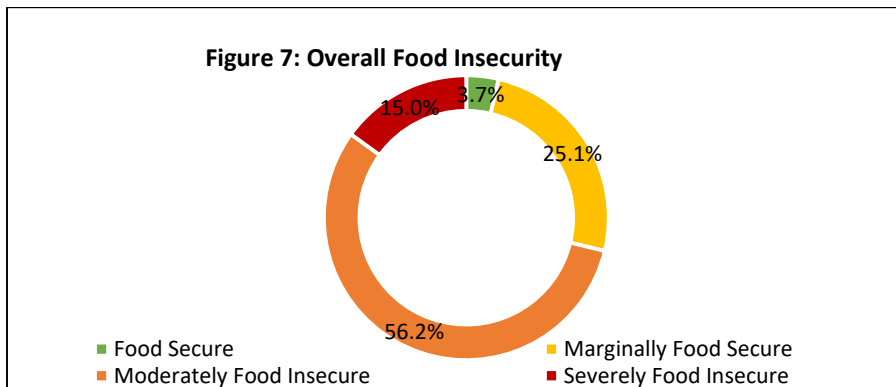
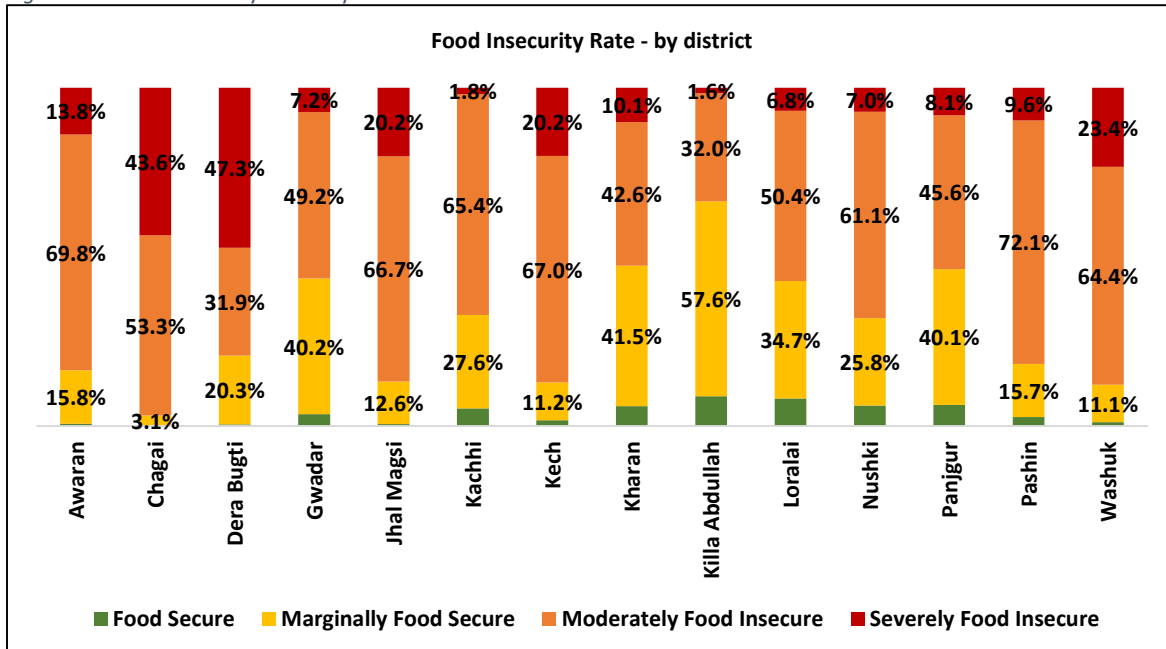


Figure 39: Food Insecurity Rate - by District



²³ The CARI culminates in a food security console which supports the reporting and combining of food security indicators in a systematic and transparent way. The food security console is the final output of the CARI. It combines a suite of food security indicators into a summary indicator –called the Food Security Index (FSI) - which represents the population’s overall food security status. Central to the approach is an explicit classification of households into four descriptive groups based on the composite Food Security Index: food secure, marginally food secure, moderately food

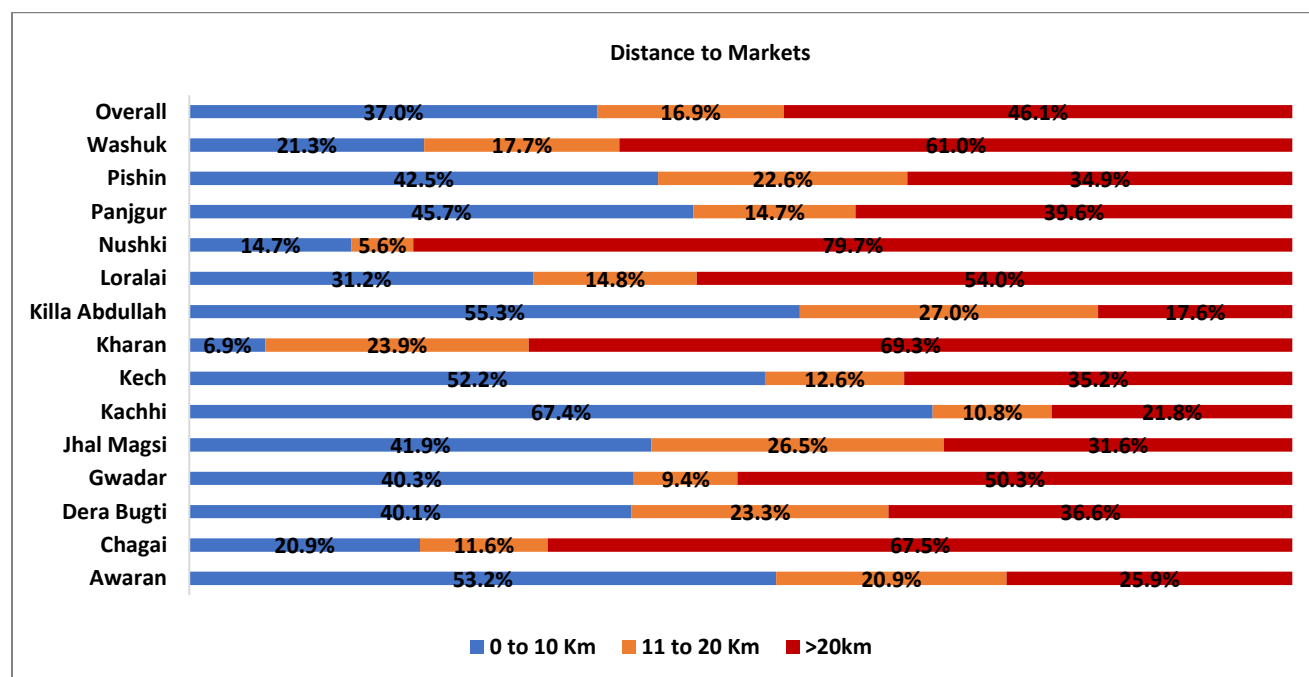
Access to Markets

Markets play an important role in the households' food security, given their high dependence on markets for selling and/or sourcing food, agro-livestock commodities and related inputs, labor alongside other essential non-food items.

Overall, about **46%** of the surveyed households have to travel more than 20 km to buy food and non-food items from the nearest markets, whereas **17%** of the households have to travel 11 to 20 km to the nearest markets, while **37%** have to travel less than 10 km to reach to the nearest markets.

Among the districts, the percentage of households who have to travel greater than 20 km to reach the nearest market include Nushki (80%), Kharan (69%), Chagai (68%), and Wasuk (61%) (Figure 40).

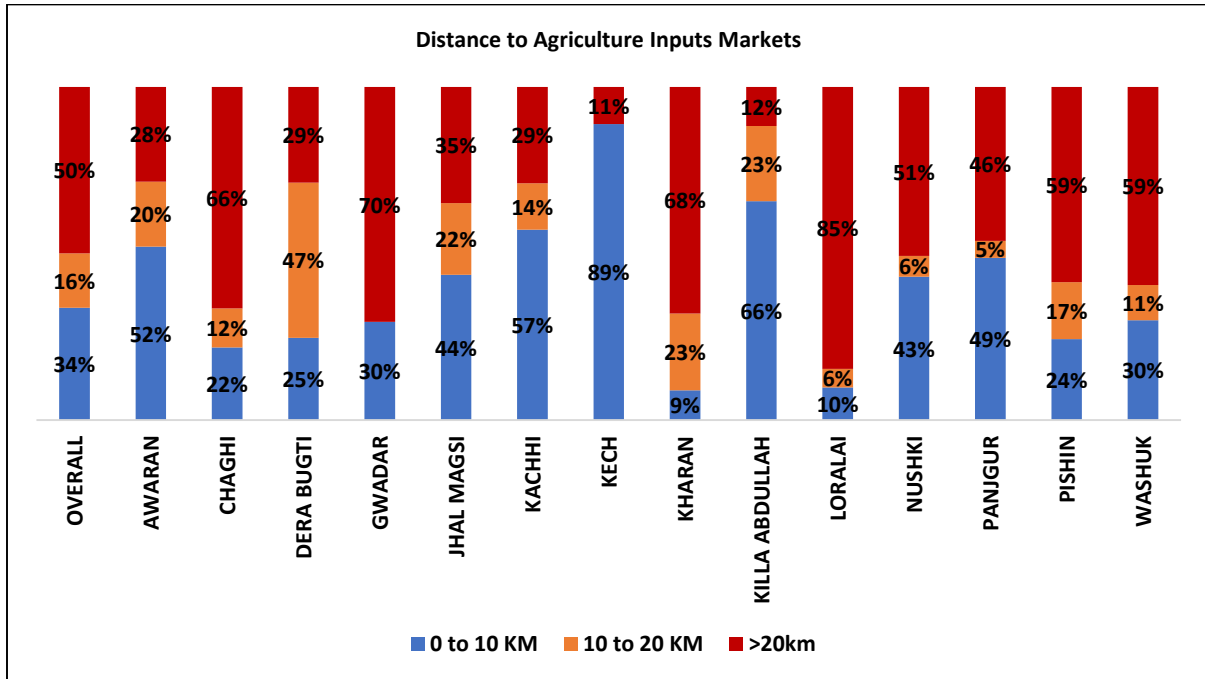
Figure 40: Distance to Markets



According to the findings, half of the surveyed households involved in agriculture activities and those keeping livestock travel for more than 20 kilometers to meet agriculture and livestock related needs. These needs include seed, fertilizer, pesticides, and herbicides for crop production and in case of livestock for purchasing inputs i.e. fodder/feed, medicines etc. Households physical access to agricultural inputs markets is a significant problem in districts Loralai, Gawadar, Kharan and Chaghi, where about 85%, 70%, 68% and 66% households respectively reported travelling more than 20 KMs to access agricultural inputs (Figure 41)

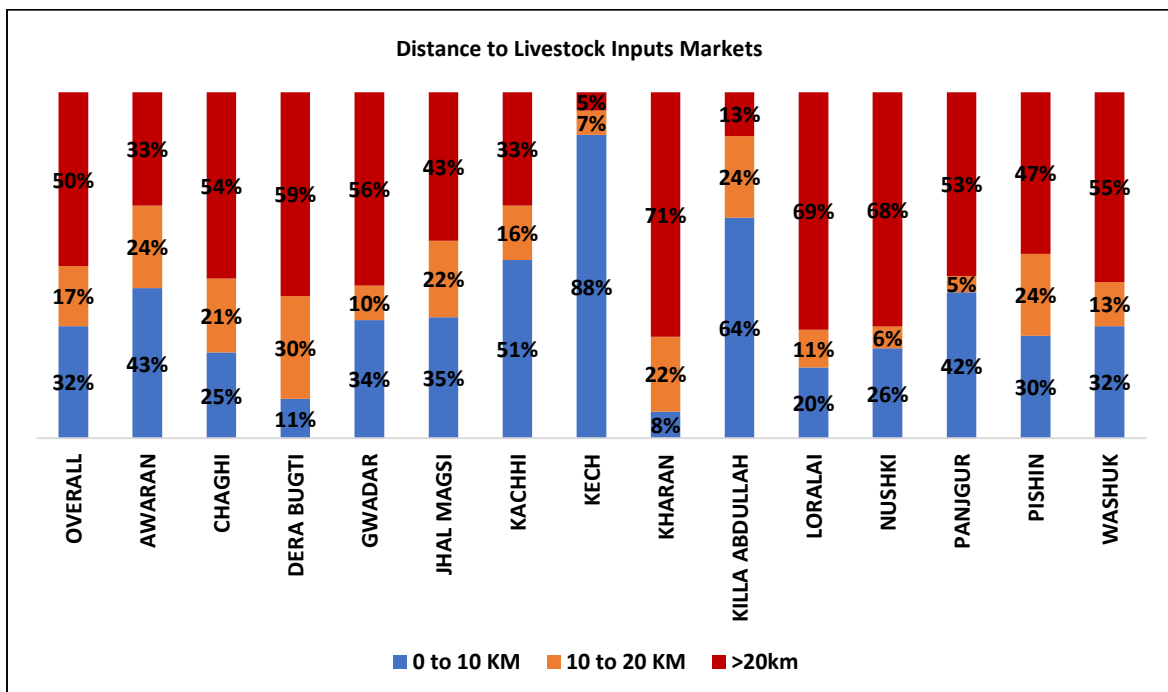
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Figure 41: Distance to Agriculture Inputs Markets by District



Households physical access to livestock inputs markets is also a significant problem in districts Kharan, Loralai, Nushki and Dera Bugti where 71%, 69%, 68% and 59% travel more than 20 KMs to access livestock inputs (Figure 42)

Figure 42: Distance to Livestock Inputs Markets by Districts



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The availability of commodities in the markets is a significant problem for families keeping livestock as about 57% of the livestock holders reported 'inadequate availability' of livestock inputs, while 62% of the farming households reported inadequate (available but not enough) availability of agricultural inputs. District wise, Chaghi, Dera Bugti, Killa Abdullah and Kharan were found to be the district where availability of agriculture related inputs in the markets is a significant problem. While in case of livestock, availability of inputs is generally a significant problem except in districts Kachhi and Gawadar.

Table 6: Availability of Agriculture and Livestock Inputs in the Markets

District	Agriculture		Livestock	
	Plenty (no problem)	Inadequate (available but not enough)	Plenty (no problem)	Inadequate (available but not enough)
AWARAN	28%	72%	27%	73%
CHAGHI	2%	98%	2%	98%
DERA BUGTI	2%	98%	1%	99%
GAWADAR	56%	44%	69%	31%
JHAL MAGSI	41%	59%	34%	66%
KACHHI	96%	4%	94%	6%
KECH	100%	0%	28%	72%
KHARAN	27%	73%	27%	73%
KILLA ABDULLAH	6%	94%	12%	88%
LORALAI	96%	4%	96%	4%
NUSHKI	70%	30%	77%	23%
PANJGUR	37%	63%	53%	48%
PISHIN	52%	48%	51%	49%
WASHUK	21%	79%	28%	72%
OVERALL	38%	62%	43%	57%

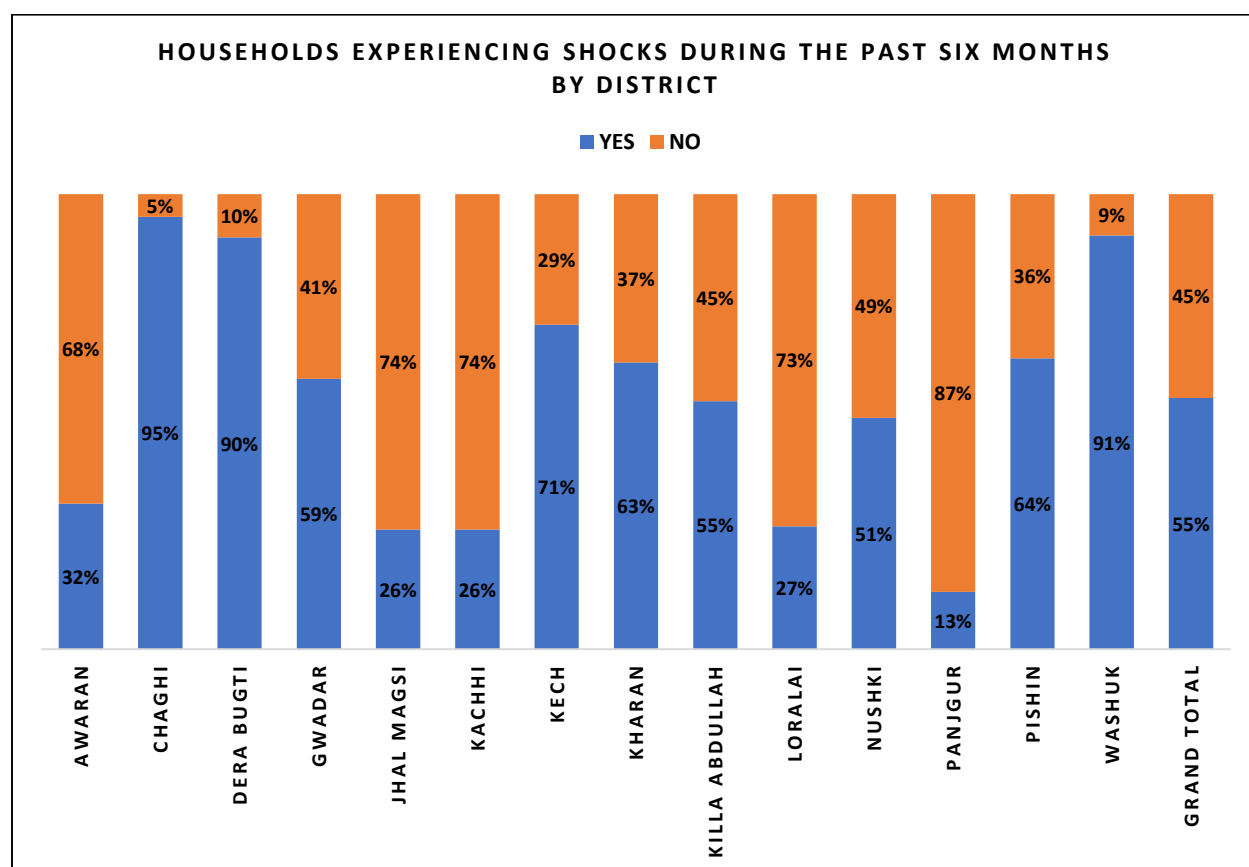
Shocks and Coping Strategies

Shocks

Shocks are, “external short-term deviations from long term trends that have substantial negative effects on people’s current state of well-being, level of assets, livelihoods, safety or their ability to withstand future shocks”.

By nature these shocks can be slow-onset like drought, or relatively rapid onset like floods, disease outbreak, or market fluctuations. In recent past, the weather in Balochistan has remained quite dry and devoid of rains. The continued long term absence of rain as well as lack of potable underground water in the region has brought about prevalence of drought in Balochistan as a whole. Consequently, agricultural and livestock economies of the province has been greatly affected. Subsequently as a result, large number of households has been affected by the drought. In this assessment, the households were asked: whether they experienced shocks during the last 6 months. The response pattern that emerged is presented in figure below.

Figure 43: District Wise Percentage Distribution of Households that Experienced Shocks during the Last Six Month



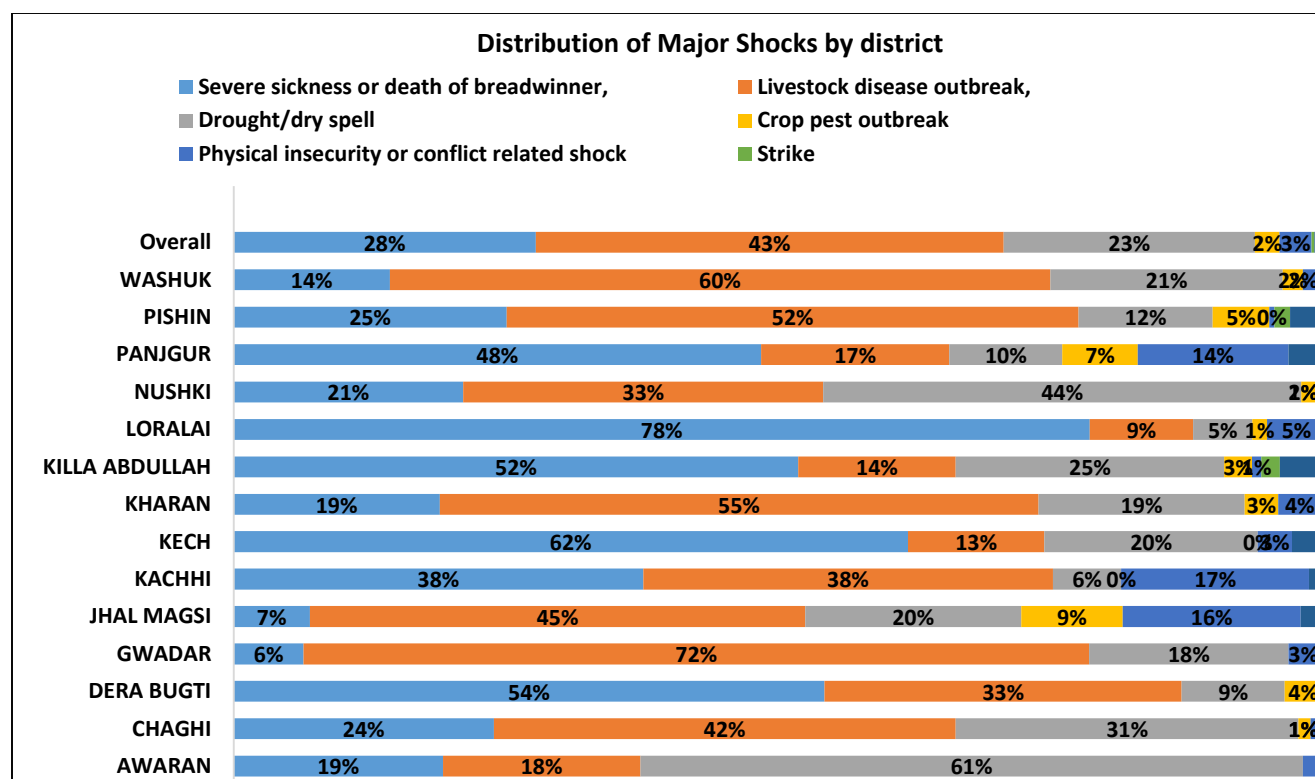
The highest number of households that experienced shocks were in Chaghi district (95%); followed closely by Washuk (91%) and Dera Bugti (90%) respectively. Conversely, the least number of households that experienced shocks was in district Panjgur (13%). Nonetheless, there were many households in other districts which comparatively experienced less shocks.

Distribution of Major Shocks

The households were asked to report major shocks they experienced. Overall, most of the (43%) households reported livestock disease outbreak as their major shock, followed by severe sickness or death of bread winner (28% households), 23% households reported drought/dry spell as the major shock. Other shocks were crop pest outbreak reported by 2% households, physical insecurity or conflict related shock reported by 3% households.

The distribution of these shocks by district indicates that 72% households in Gwadar, 60% in Washuk, 55% in Kharan and 52% in Pishin experienced shocks due to livestock disease outbreaks. This was followed by districts where shocks were reported by relatively lesser number of households: Kharan 55%, Pishin 52%, Jhal Magsi 45%, Chaghi 42%, Kacchi 38%, Nushki and Dera Bugti 33% each.

Figure 44: Distribution of Major Shocks



Distribution of Losses Caused by Shocks

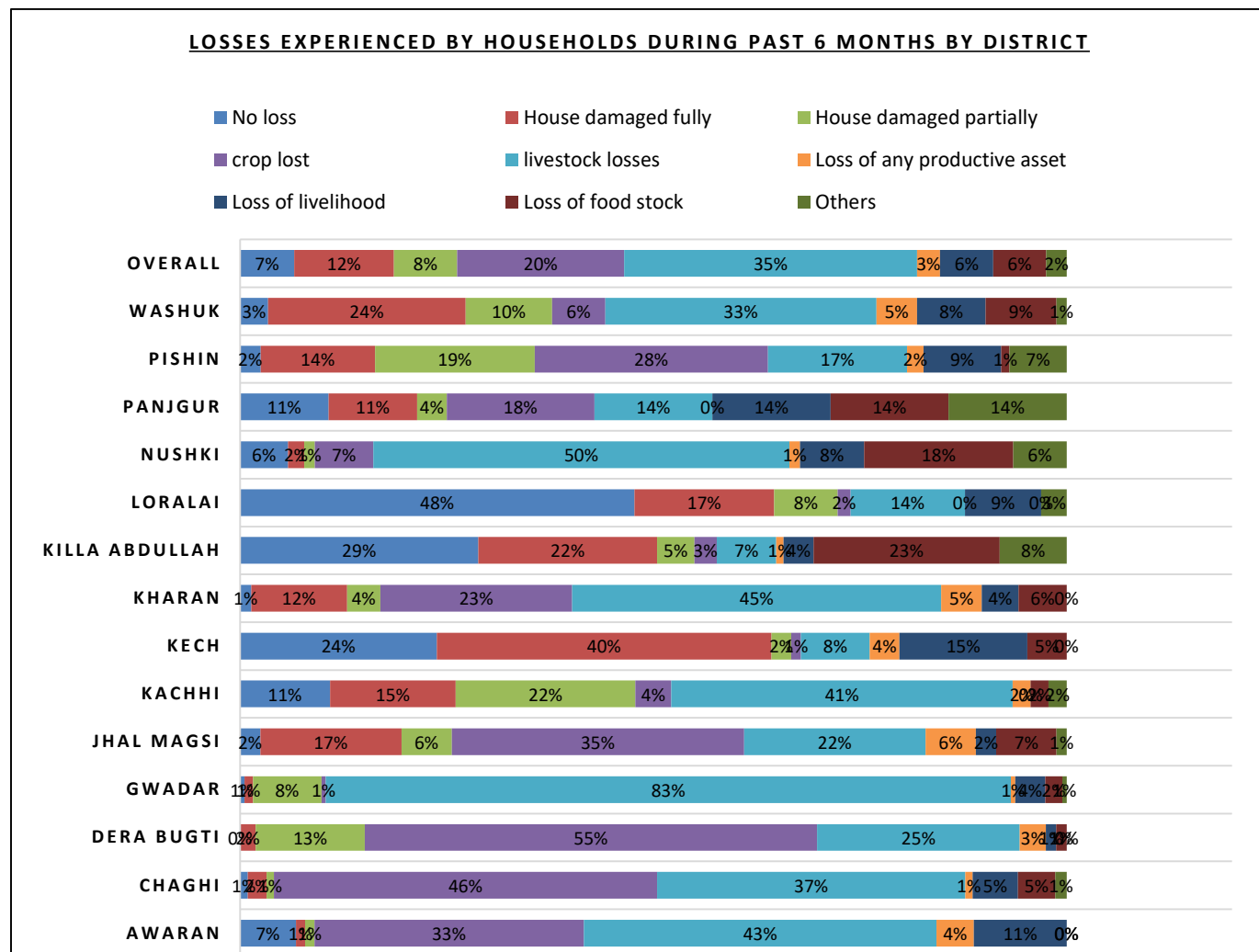
Analysis data on overall basis, indicates that livestock loss was the foremost and number one shock reported by 35% households, followed by crop losses reported by 20% households. Other reported shocks referred to loss of livelihood (6%), loss of food stocks (6%), and less productive & other assets: (3%) and (2%) respectively. There were 7% households which did not experienced any loss.

Further, the distribution of shocks indicate that in Gwadar district 83% households were deeply shocked from loss of livestock. Similarly, due to loss of livestock, large spread shock patterns were recorded for

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Nushki, Kharan, Kacchi, Awaran, Nushki. Shocks from loss of crops was reported by 55% households from Dera Bugti followed by Chaghi (46%), Jhal Magsi (35%), Awaran (33%), Pishin (28%) and others.

Figure 44: Households Losses Experienced During Past Six Months



Livelihood-based coping strategy²⁴

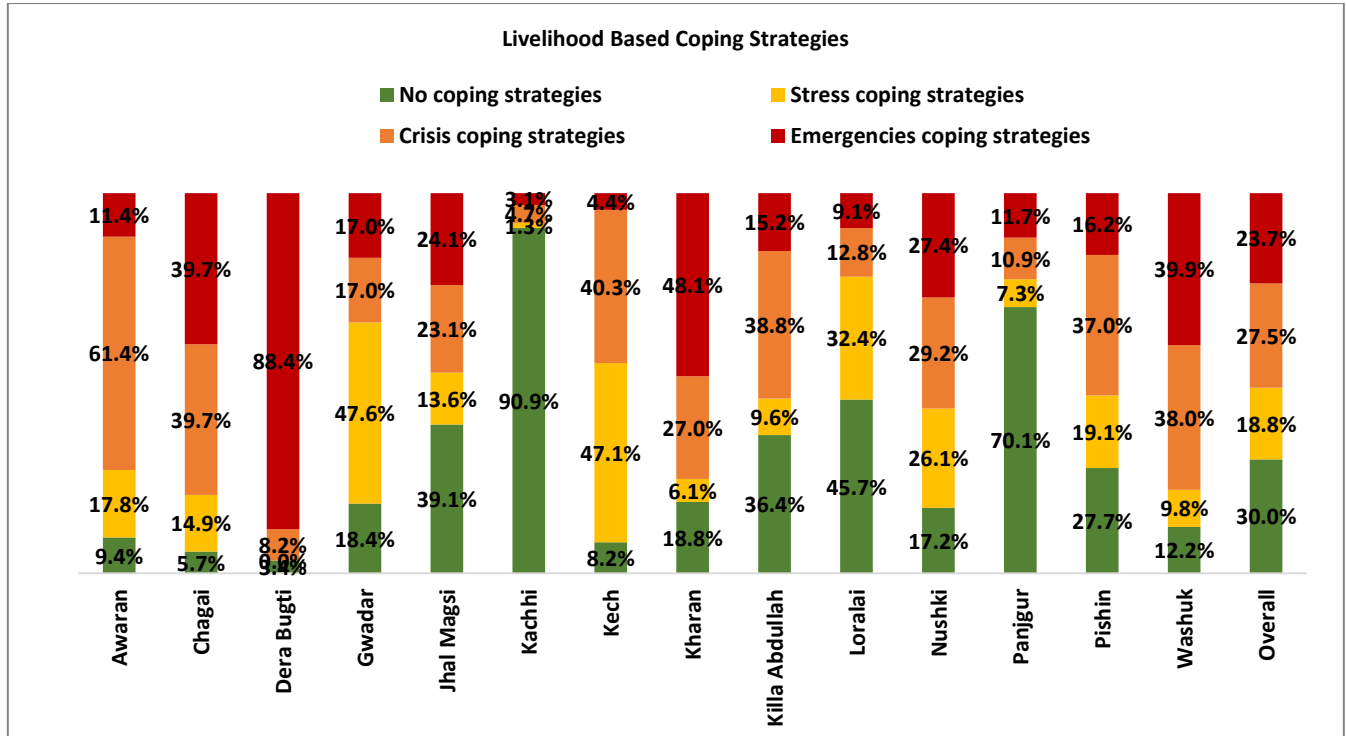
Households use a variety of coping strategies when they have problems meeting their food needs. These include selling household goods or assets to buy food, selling productive assets or means of transport (such as a sewing machine or tractor), or consuming seed stock held for the next planting season. The livelihood-based strategies are analyzed based on their occurrence in the past 30 days prior to the survey.

Overall, **70%** of the households reportedly used at least one livelihood-based coping strategy to meet their food needs. The proportion of households adopting “stress”, “crisis” and “emergency” coping strategies

²⁴ The livelihood-related coping strategies are analyzed into three sub-categories, i.e., stress strategies (such as borrowing money, purchase food on credit, spent savings), crisis strategies (selling household or productive assets, or withdrawing children from school), and emergency strategies (such as consuming seed stock held for the next season, selling house or land or last female animal, or begging).

are **19%**, **27%** and almost **24%**, respectively. District wise findings show that in Dera Bugti 84%, Kharan 48%, and both Washuk and Chaghi 40%, resorted “emergency” coping strategies (Figure 45).

Figure 45: Livelihood Based Coping Strategies

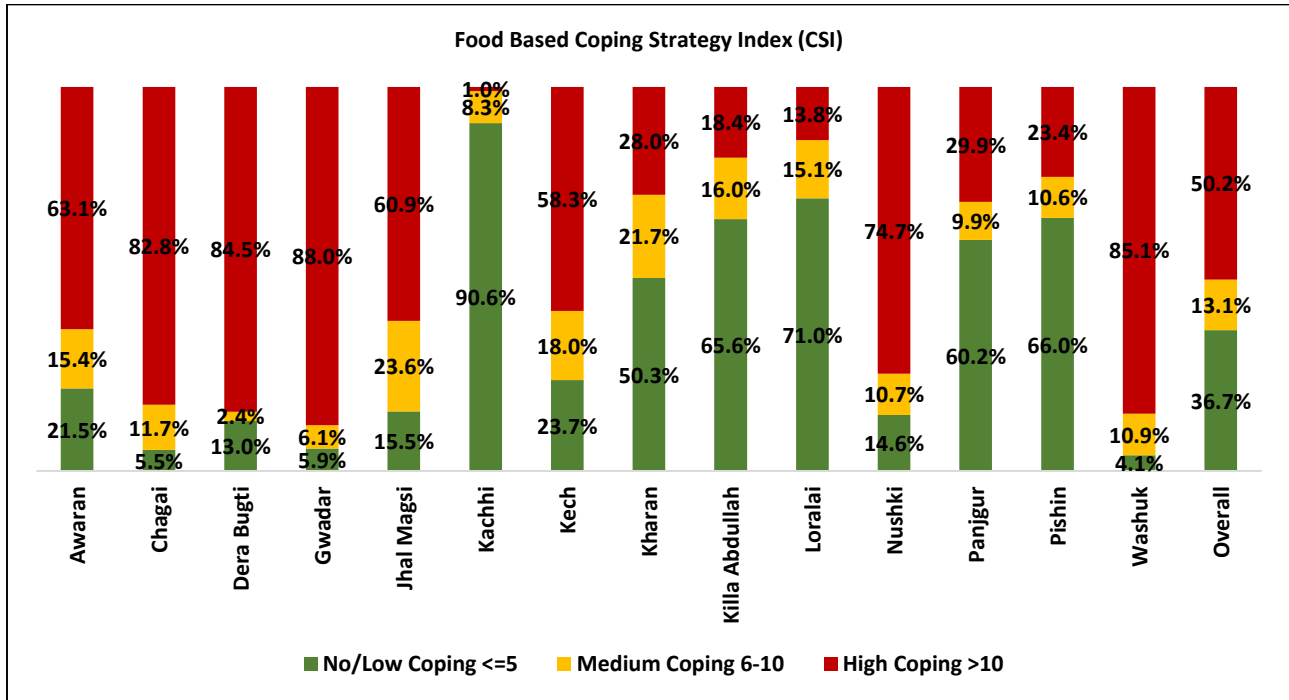


Food-based coping strategies

The food-based coping strategy measured by the reduced coping strategy index (rCSI) is also a proxy indicator of food security. Change in food consumption of the household such as eating less preferred or less expensive food, borrowing food from others, reducing the number of meals or portions, adults eating less to provide sufficient food for the children are considered as food-based coping strategies. Overall, it was found that **50%** of the surveyed households adopted “high” level food based coping strategies, another **13%** adopted “medium” level coping strategies, while **37%** adopted “No/low” level coping strategies.

Among districts, the households adopting “high” food-based coping strategies include Gwadar (88%), Washuk (85%), Dera Bugti (85%) Chaghi (83%), Nushki (75%), Awaran (63%), Jhal Magsi (61%) and Kech (58%). While in remaining six districts, less than 30 percent households are adopting high food based coping strategies. The higher coping strategy index indicate a more serious food security situation. It suggests that the food gaps are existing in the area and vulnerable households are adopting these short-term coping strategies to meet their food needs (Figure 46).

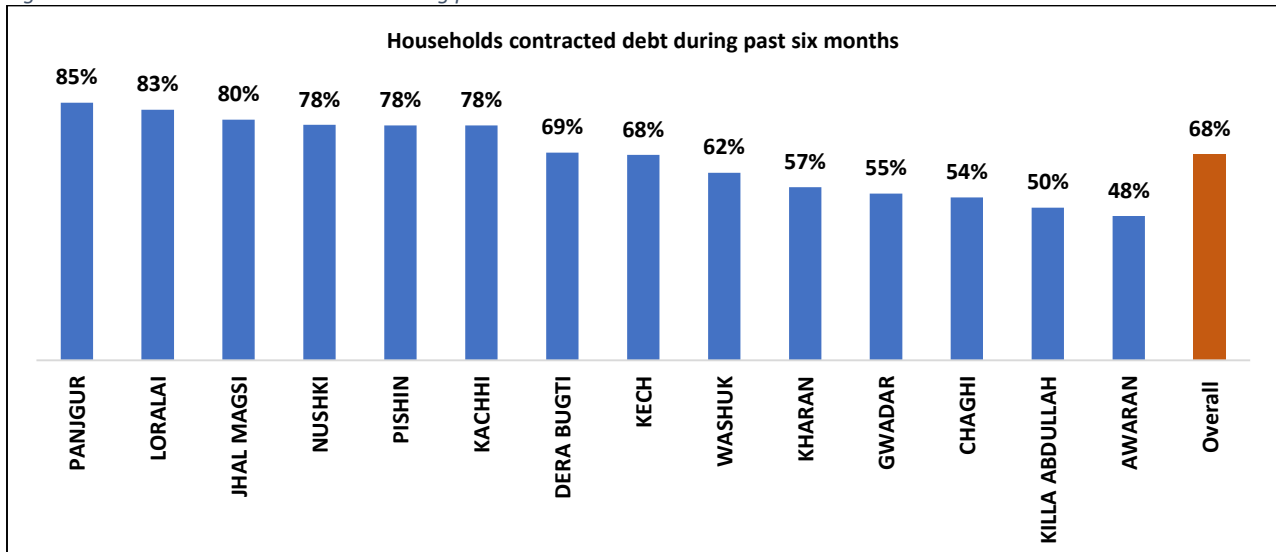
Figure 46: Food Based Coping Strategy Index (CSI)



Household Indebtedness

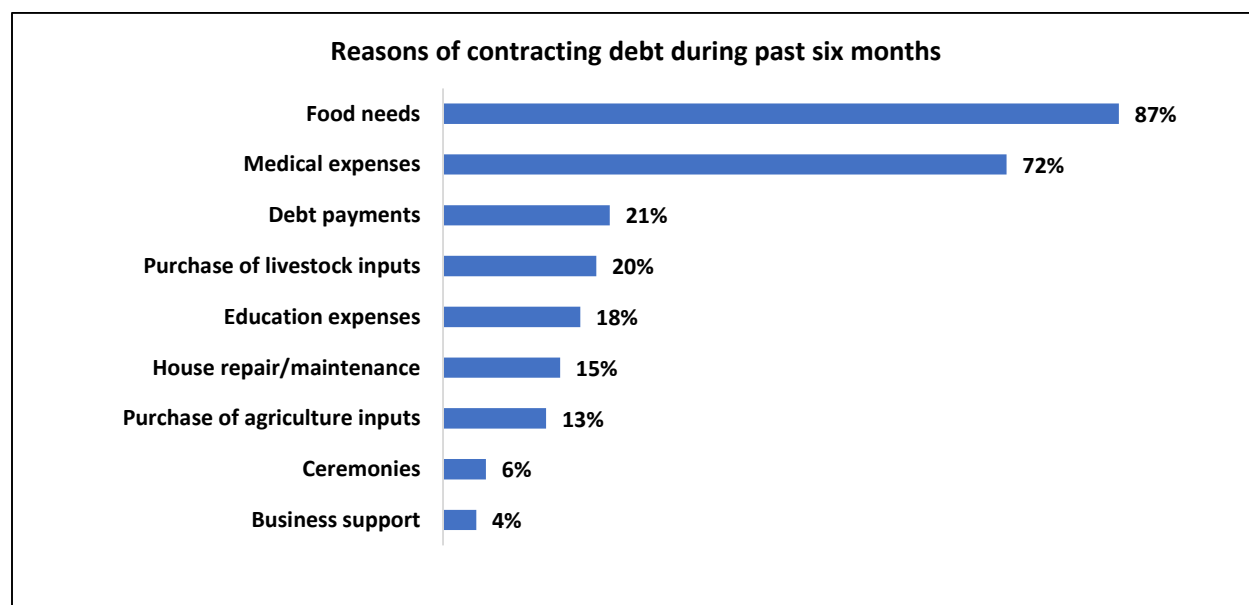
Due to reduced income level and abridged livelihood opportunities, one of the common coping strategies was to contract debt for the household’s immediate needs. Out of the surveyed households, 68% households reported that they contracted debt during the past six months. Proportion of debt borrowing was highest in district Panjgur where 85% of the households contracted debt during the six months period (Figure 47). Following this, debt borrowing was higher in district Loralai, Jhal Magsi, Nushki, Pishin and Kacchi. Slightly more female headed households acquired debt compared to male headed households (70% vs. 67%).

Figure 47: Households contracted debt during past six months



When asked about primary reasons of debt, majority replied that either they borrowed money for food needs (87%) or for some medical expenses (72%). Other reasons include livelihood related debt or debt repayments reported by 22% households, purchase of livestock inputs (20%), education expenses (18%), house repair/maintenance (15%), and purchase of agricultural inputs (13%) etc. (Figure 48). This highlights that borrowed money was spent on most of the immediate needs highlighting that their current income level was not sufficient even to fulfil immediate food and health needs. The figure below combines all three reasons for contracting debt.

Figure 48: Reasons of contracting debt during past six months



Average amount of contracted debt was PKR 100,000 for the surveyed households. This amount is 4.6 times higher than the average monthly income of these households. Amount of debt was highest in district Pishin (PKR 212,000), followed by Washuk (PKR 155,000) and Dera Bugti (PKR 153,000).

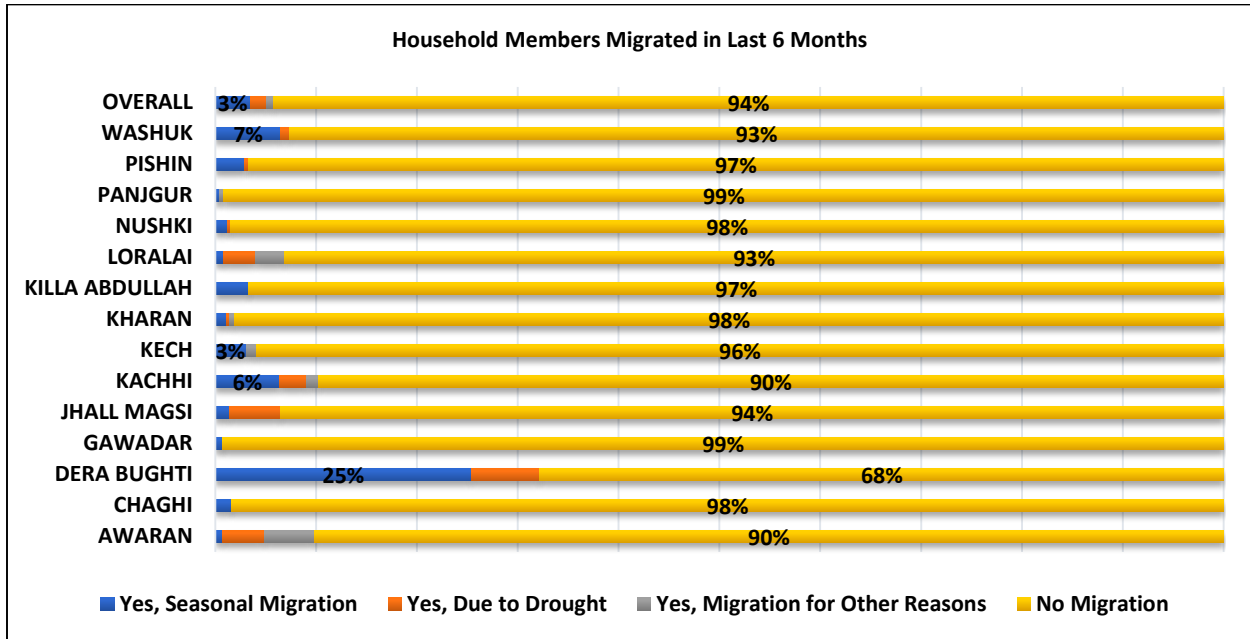
Migration

Overall 6% of the surveyed households reported migration of their members or entire household at some point during the last 6 months (Figure 49). However, disaggregating the data by reason for migration shows that 3% of the households performed routine seasonal migration whereas only 2% were displaced due to the prevailing drought in Balochistan. In particular there were higher levels of migration in Dera Bugti and Awaran districts. This suggests that while the drought in Balochistan is affecting the surveyed households, it is not yet causing a mass displacement / movement of individuals from the region. We expect this situation to change in the future depending upon the impact of the drought on the households.

However, one important point to note is that on 5 occasions the field teams reported that the village that was randomly selected in Balochistan had to be replaced because the entire village migrated due to drought and there was nobody left to conduct an interview. Specifically this was the case in Kech and Awaran district.

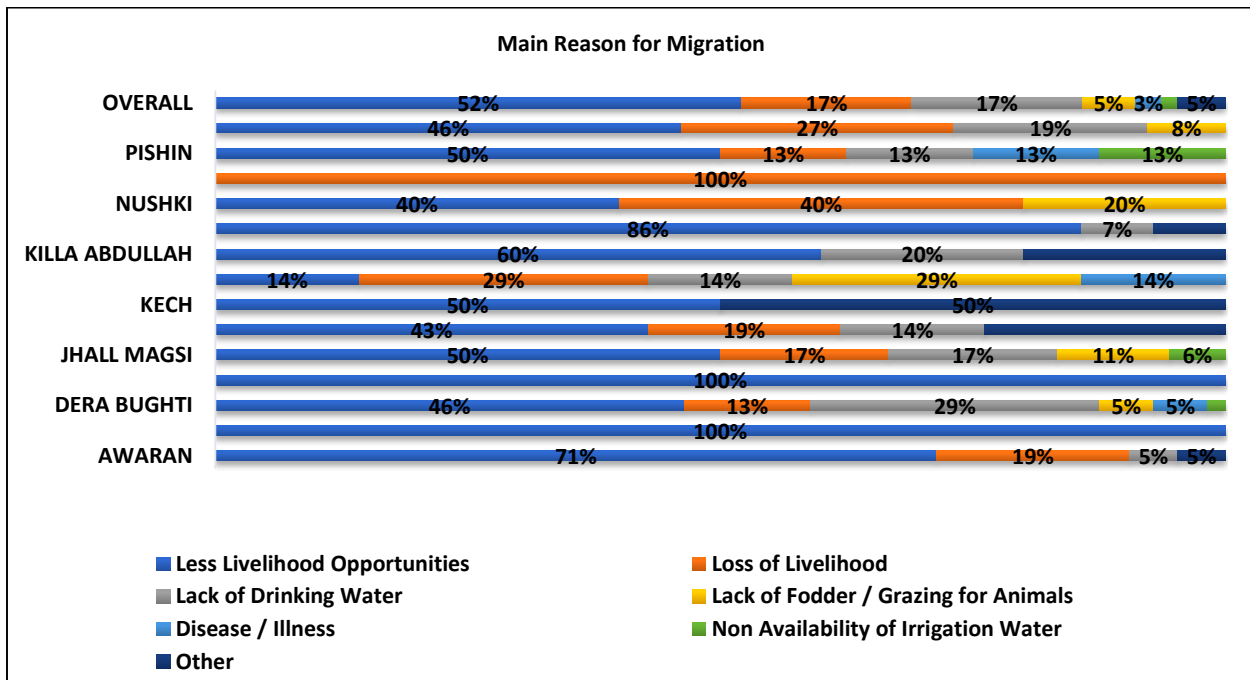
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Figure 49: Migration by Household Members during the Past 6 Months



Out of the households that did migrate, the majority (52%) revealed that the primary reason for migration was fewer livelihood opportunities in their previous location, whereas 17% of the households revealed that the primary reason for migration was a lack of drinking water (Figure 50). These findings support the earlier results which suggest that households are more likely to perform seasonal migration for livelihood reasons rather than migrate specifically due to the drought in Balochistan.

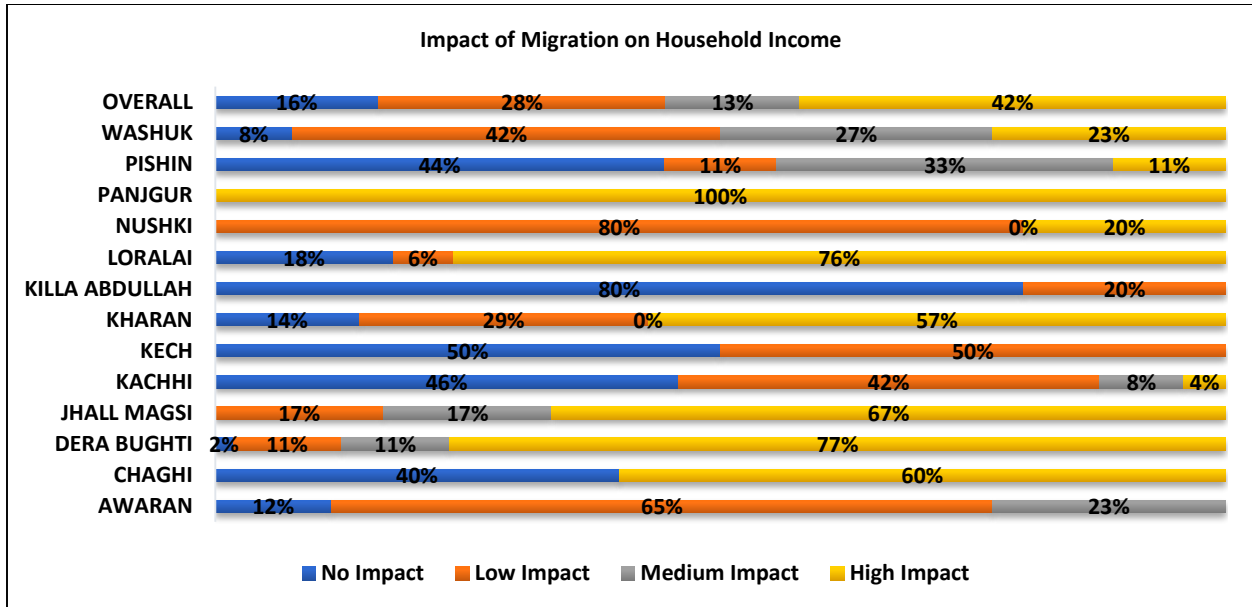
Figure 50: Main Reason for Migration of Family Members



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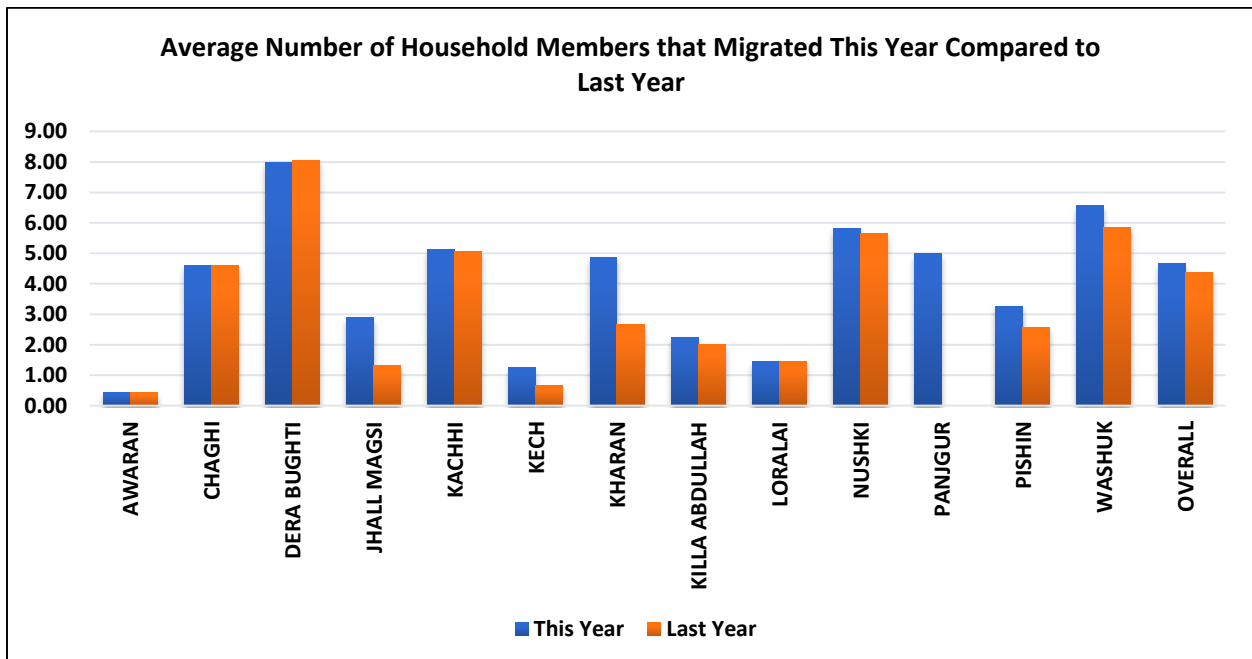
Households that did migrate were more likely to report that the migration had a high impact on household income. For example, 42% of the migrated households overall reported that the migration had a high impact on their household's income (Figure 51).

Figure 51: Impact of Migration on Household Income



Out of the households that did migrate, on average 4.7 household members migrated this year compared to 4.4 household members last year (Figure 52). This is consistent across most of the districts where the same levels of migration occurred this year compared to last year.

Figure 52: Average Number of Household Members that Migrated This Year Compared to Last Year



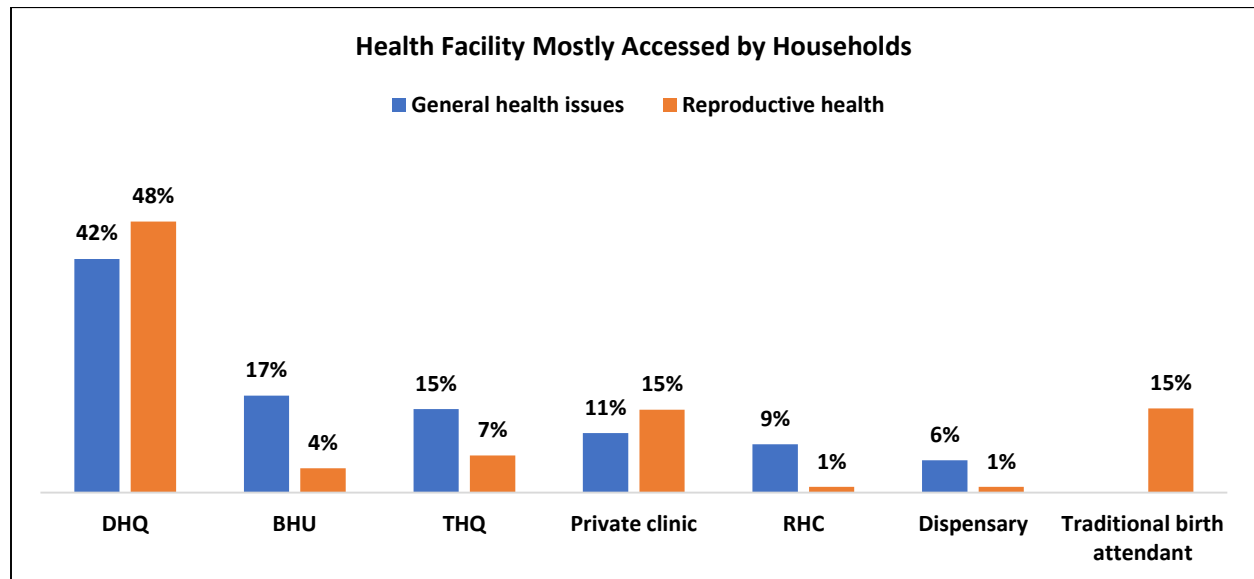
Health and Nutrition

Access to health services

In Pakistan’s health care system, Basic Health Units (BHU) are considered as a first level of health care to maintain adequate health and protection from diseases at the community level. Typically, each Union Council should have one functional BHU. However, in rural areas, where first level health care systems are not fully functional, people have to travel to secondary or tertiary level health care units, which not only increase the burden to such institutions but also increase logistic and financial burden on patients.

In surveyed households of Balochistan, 42% of the households’ access District Head Quarter’s (DHQ) hospital for general health issues. Followed by this, BHU and Tehsil Head Quarter (THQ) were reported as the most accessed health care institute at 17% and 15% respectively. Furthermore, 11% of the households reported that they preferred to access private hospital or private doctor for general checkup.

Figure 53: Health Facility Mostly Accessed by the Households

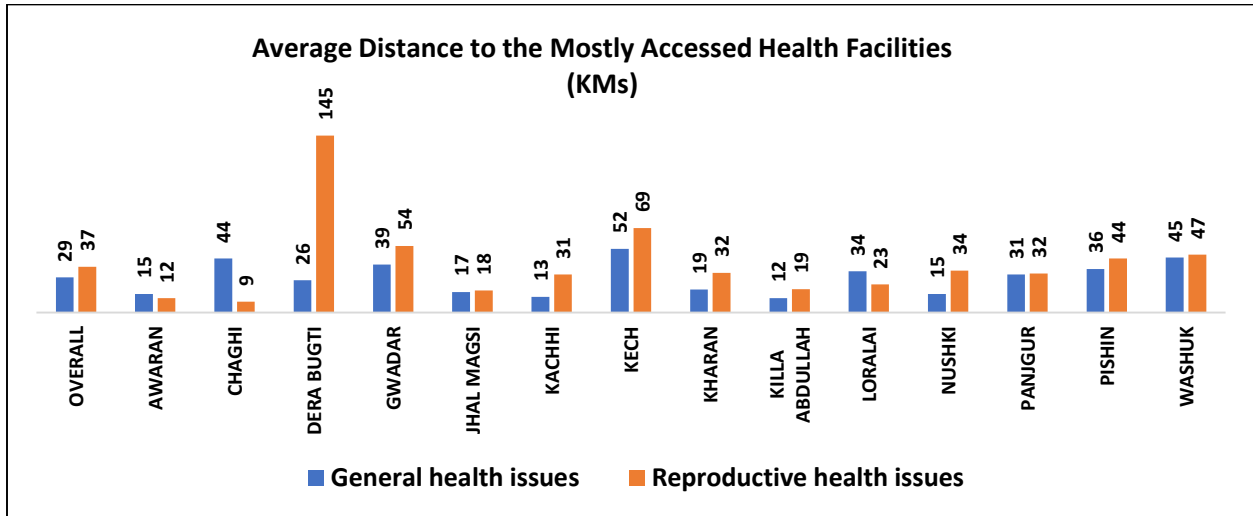


For reproductive health issues, the surveyed households reported reliance on DHQ as well as private clinics. For example, 48% of the households preferred to access DHQ for reproductive health issues, whereas 15% preferred to access private clinics. Access to THQ, RHC, and BHU for reproductive health was limited and was reported by only 7%, 1%, and 4% of the households respectively. Notably, 15% of the households reported that they preferred to utilize traditional birth attendants for reproductive health issues.

Due to higher amount of reliance on secondary and tertiary health care institutions, households had to travel long distances to access the health service. On average, one household had to travel 29 KMs to access the health facility for general health care. However variations were observed across the districts in this regard with highest average distance being reported in district Kech (50 KMs), followed by Washuk (45 KMs), Chaghi (44 KMs) and Gwadar (39 KMs). Average distance for reproductive health services was even higher and was reported at 37 KMs on average overall. Highest distance for reproductive health care was reported from Dera Bugti (above 100 KMs), followed by Kech (69 Kms), Gwadar (54 KMs) and Washuk (47 Kms).

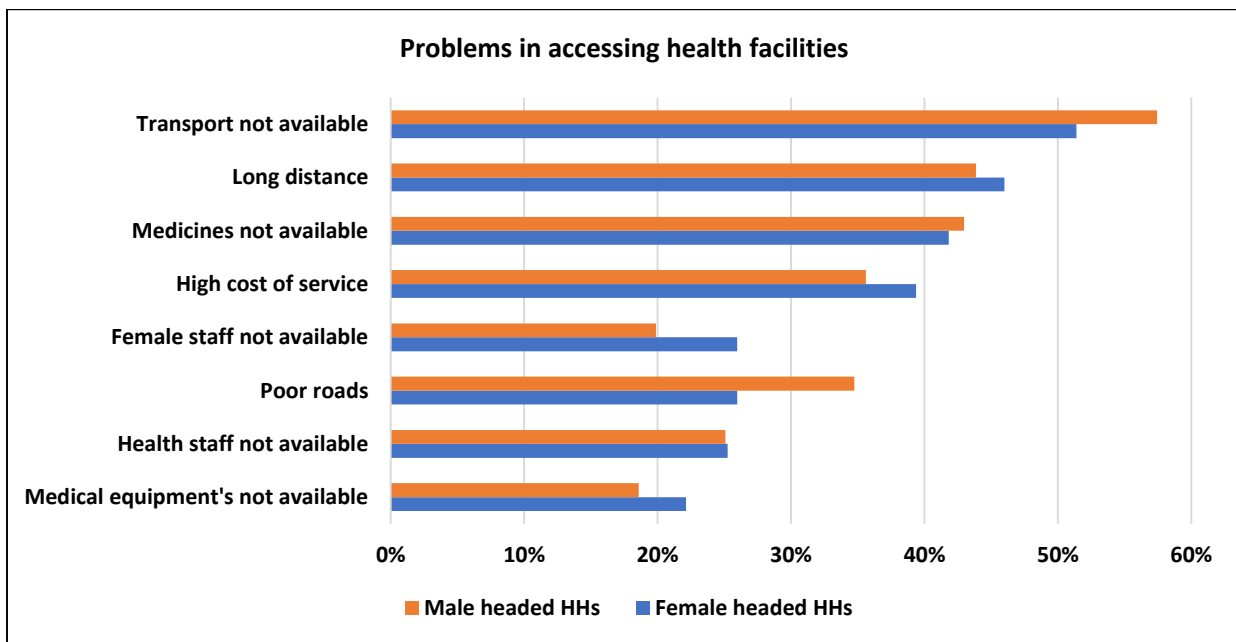
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Figure 54: Average Distance to the Health Facility (KMs) Accessed by the Households



When households were asked about the problems and constraints in accessing health facilities, most of the people considered unavailability of transport as a major issue. Around 57% of the households mentioned this issue being among the top three issues. Subsequently, long distances (44% of the households), unavailability of medicines (43% of the households), and high cost of medical services (36% of the households) were reported by the households. While comparing the responses of male headed households vs. female headed households, more women headed households complained against long distances, financial constraints and unavailability of female staff at health facility, as highlighted in Figure 55.

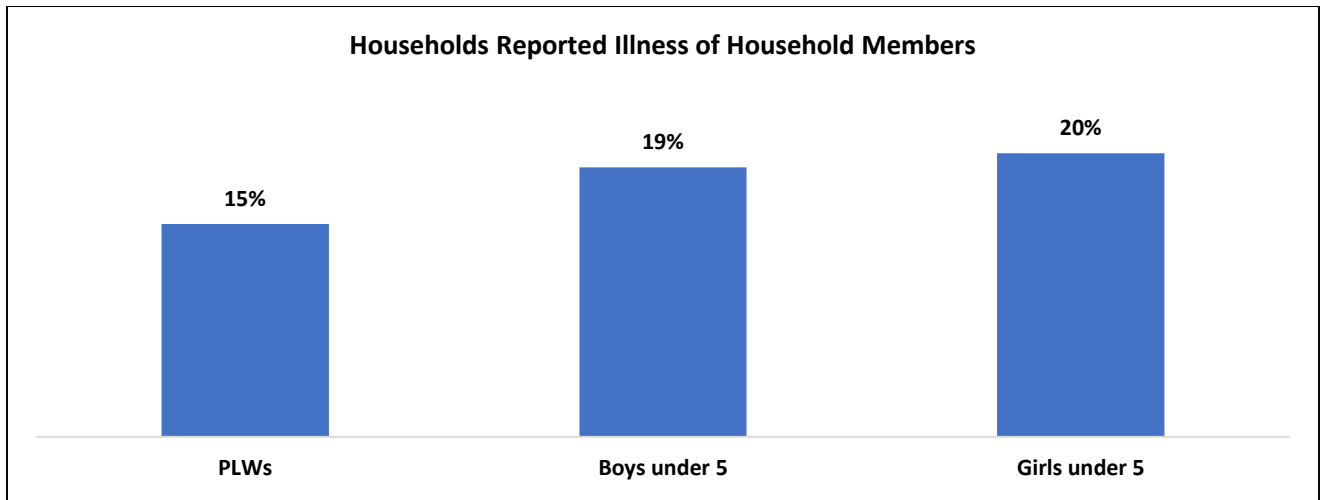
Figure 55: Health Facility Mostly Accessed by the Households



Mortality and morbidity

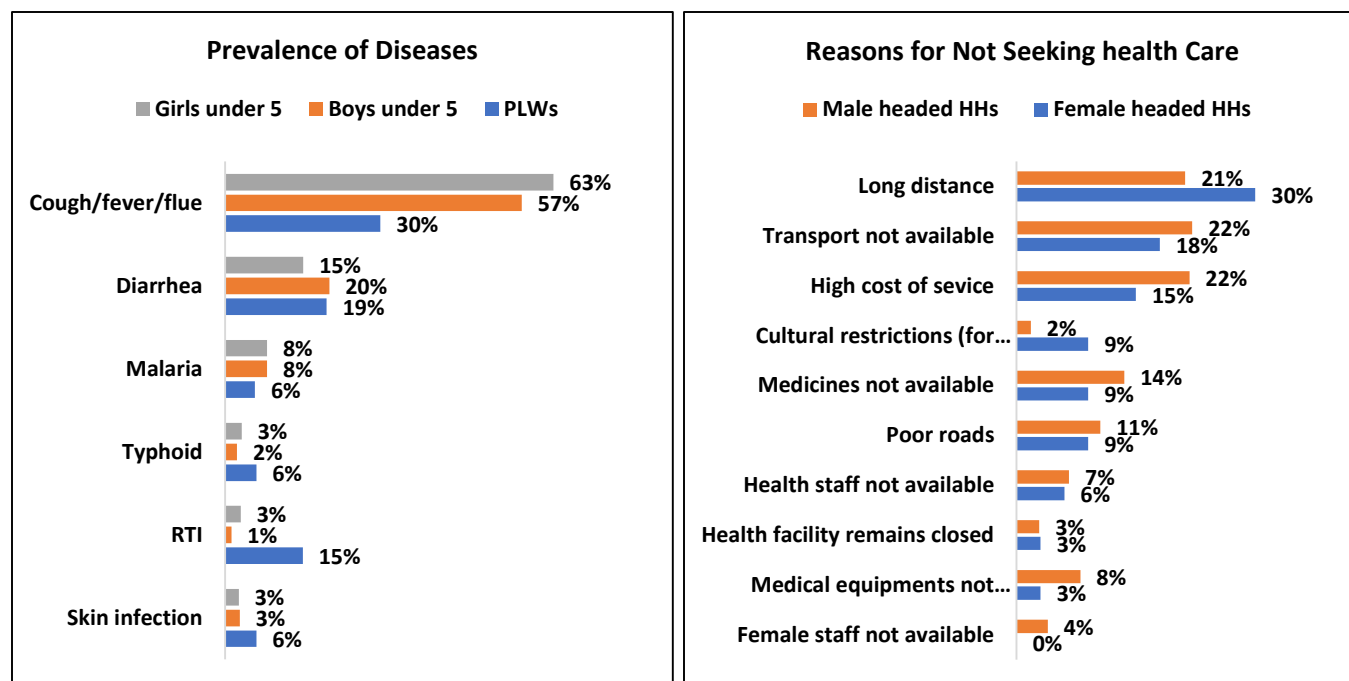
A moderate level of morbidity was reported in surveyed households during the past six months. Overall, 15% of the households reported that at least one pregnant or lactating woman was sick during the past six months. Similarly, 19% of the households reported illness of boys under the age of five years and 20% households reported illness of girls under the age of five (Figure 56). For PLWs, higher morbidity was reported from district Gwadar (39% of households), Kech (37%), and Panjgur (33%). For children under five, higher morbidity was reported from Kech (38% HH reported illness of boys and 48% for girls), Panjgur (29% for boys and 40% for girls) and Loralai (35% for boys and 33% for girls).

Figure 56: Households reported illness of household members



When asked about the most common type of illness, most of the households reported cough/fever, diarrhea, and malaria, as highlighted in the graph below. Over 70% of the sick people reported that they received some health care during this period. Those who didn't receive health care mentioned long distances, transportation issues, and high cost of health services among the top three reasons for not getting health care. While comparing male vs. female headed households, more female headed households mentioned long distances and cultural restrictions among key constraints.

Figure 57: Prevalence of Diseases and Reasons for Not Getting Health Services

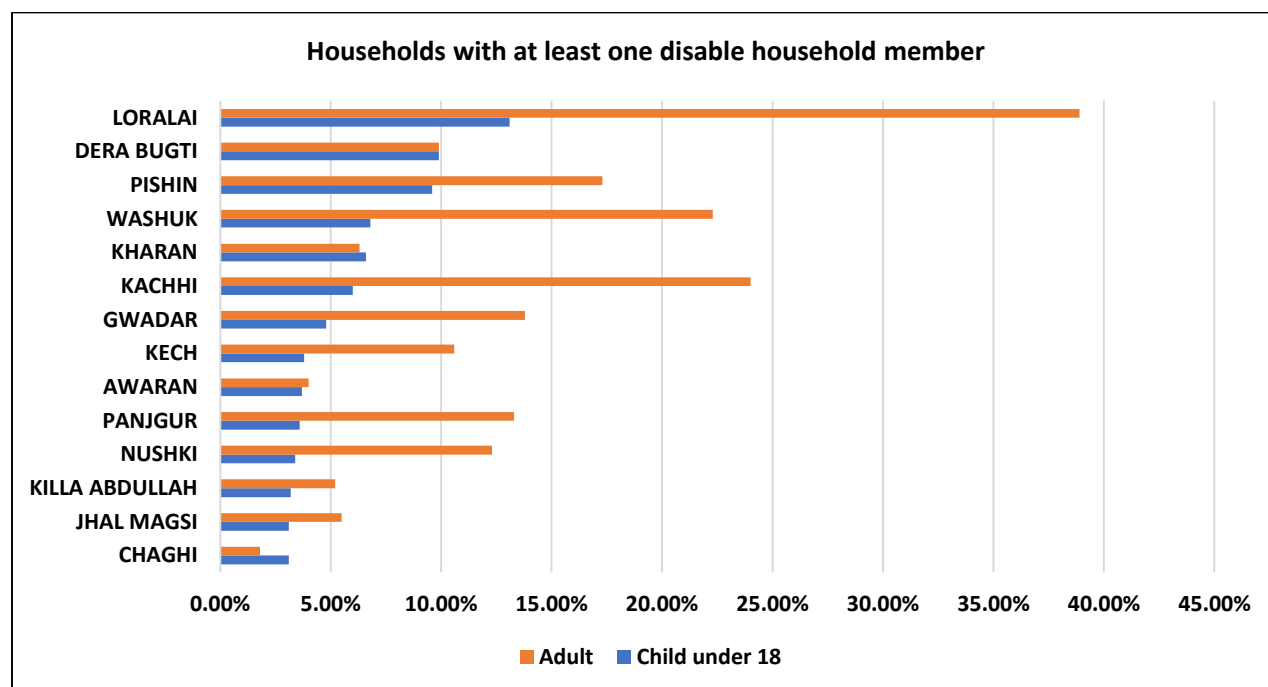


Around 6% of the households reported that at least one boy under the age of five died during past 12 months and 5% households reported death of girl under the age of five. Ratio of children died out of total number of children under five was 4.1% for boys and 3.4% for girls. Mortality ratio was reportedly higher in Dera Bugti (9.2% for boys and 8.5% for girls), Pishin (8.5% for boys and 5.6% for girls), Gwadar (7.2% for boys and 5.2% for girls), and Kharan (6% for boys and 3.6% for girls). Causes of deaths include low birth weight (25% of the cases), diarrhea (16%), malaria (14%) and premature birth (10%).

Disability

Overall, 13.7% of the households reported that at least one of the adult household members is disabled, whereas 5.7% households reported presence of a child who is disabled (under the age of 18). Presence of disabled persons was higher in the districts of Loralai (39%), Kacchi (24%) and Washuk (22.3%), whereas disability among children was higher in Loralai (13.1%), Dera Bugti (9.9%) and Pishin (9.6%).

Figure 58: Households with At Least Once Disabled Household Member



Nutritional Status of Children Under 5 Years Age

Note: The following section does not use data from the Balochistan Drought Assessment of 2018, and instead utilizes data from the recently completed National Nutrition Survey (NNS) of 2018. The reason for this is that while the assessment was able to collect multi-sector data, the methodology and timing constraints were not sufficient for nutrition data. Therefore, UNICEF and WFP received approval from the Government to utilize preliminary results from the recent NNS 2018 to provide a picture of the nutrition status of the drought affected districts.

Consecutive issues with dietary intake, lack of affordability for nutritious diet, food security, livelihoods, and social protection, coupled with natural calamities i.e. flood and drought have led to high number of children being wasted across Pakistan (15.1%; NNS 2011). Which is further aggravated by limited treatment and prevention options specifically in the disaster-prone areas.

All the underlying causes of malnutrition, food security, hygiene, health access and sanitation are pointing toward a poor nutrition situation in all 14 districts. This is also corroborated by very preliminary data of the National Nutrition Survey (NNS 2018).

Findings of NNS 2018 (Preliminary/Un- Published Data):

UNICEF and WFP jointly recommended to use NNS 2018 preliminary data (unpublished data) for GAM calculation, as a way forward:

UNICEF coordinated with Agha Khan University to share raw/preliminary data on GAM for 14 drought notified districts. Later, UNICEF did obtain concurrence from Ministry of National Health, Services, Regulation and Coordination (MoNHSR&C) to use preliminary/unpublished findings in the drought

assessment report due to the challenges faced in drawing conclusion from the drought rapid assessment data.

Methodology:

The weight and height of children under 59 months are used as proxy measures for the general health/nutrition of the entire population. Weight-for-height (wasting) provides the clearest picture of acute malnutrition in a population at a specific point in time.

Moderate Acute Malnutrition (MAM) is identified by moderate wasting;

WFH < -2 z-score and > -3 z-score for children 0-59 months (or for children 6-59 months, MUAC <125 mm and > 115 mm).

Severe Acute Malnutrition (SAM) is identified by severe wasting;

WFH < -3 z-score for children 0-59 months (or for children 6-59 months, MUAC <115 mm) or the presence of bilateral pitting edema.

Global Acute Malnutrition (GAM) is the presence of both MAM and SAM in a population.

A GAM value of more than 10 percent indicates an emergency. High prevalence rates outside of the *seasonal* norm is cause for concern.

Commonly used thresholds for GAM are:

Prevalence of wasting Severity of malnutrition²⁵

<5% acceptable (Low)

5% to 9.9% poor (medium)

10% to 14.9% serious

>15% critical

Prevalence %	High		Medium	Low
GAM	≥15% Critical	10-14% Serious	5-9%	<5%

Sample Size:

Total 4,111 children 0 to 59 months in 14 drought notified districts were assessed through WFH anthropometric measurement instrument during NNS 2018 data collection process.

Analysis of NNS 2018 Preliminary Findings on Acute Malnutrition.

NNS 2018 preliminary database on WFH for children 0 to 59 months, significantly identifying the prevalence rate at **critical level (according to WHO standards)** for acute malnutrition in almost all drought affected districts of Balochistan .

Malnutrition rate among children was highest in district Panjgur (33.4%) followed by Jhal Magsi (27.6%), Kachhi (26.3%) and Dera Bugti (23.3%), while lowest malnutrition rate was observed in district Awaran (10.5%) however provided the aggravating conditions it still will be considered critical (Figure 59 and 60).

²⁵ Source: WHO. 2000. *The Management of Nutrition in Major Emergencies*

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Figure 59: NNS 2018 – Preliminary Findings (Raw / Un-Published Data) on GAM Rates

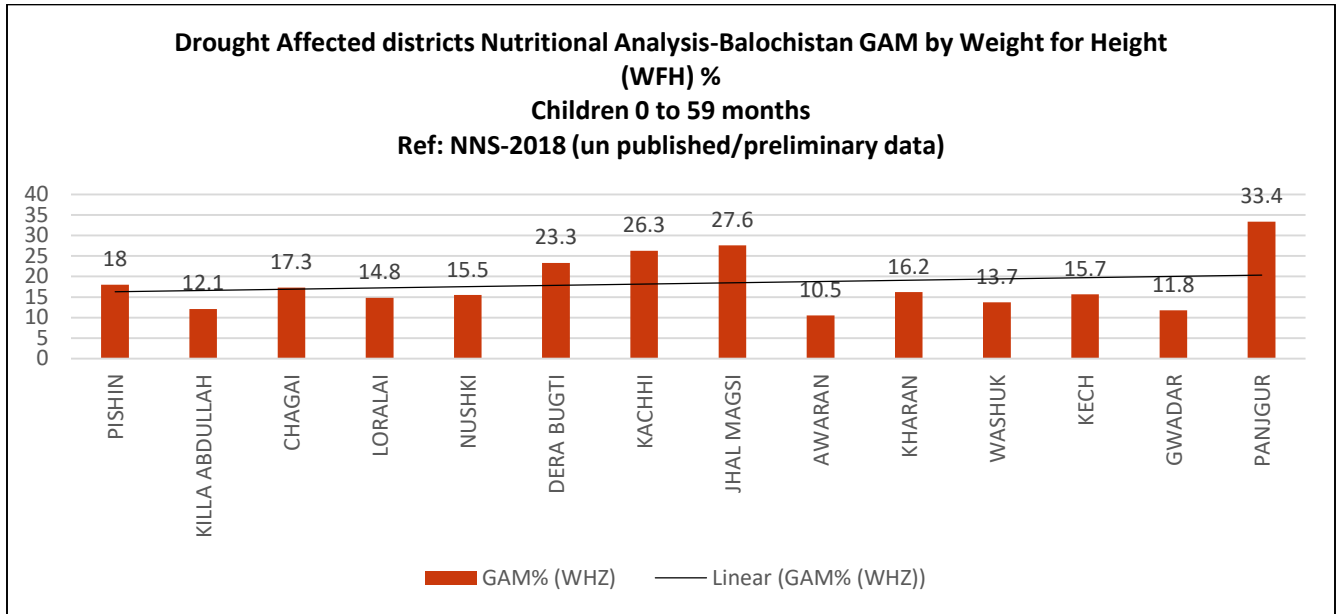
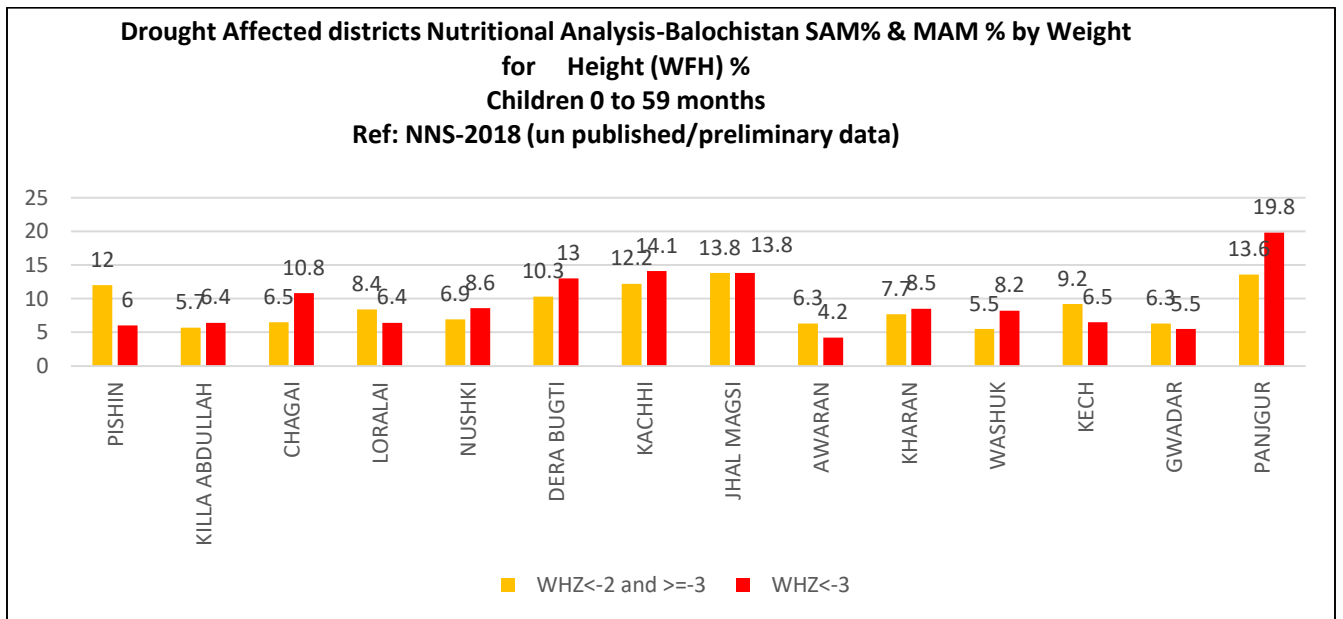


Figure 60: Drought Affected Districts Nutritional Analysis – Balochistan Severe and Moderate Acute Malnutrition by WFH



It is significant to mention that these preliminary findings are extracted based on selected sample (under five children) and the final NNS 2018 published results may vary after assigning weights. Additionally, sampling for the NNS 2018 was done at the district level.

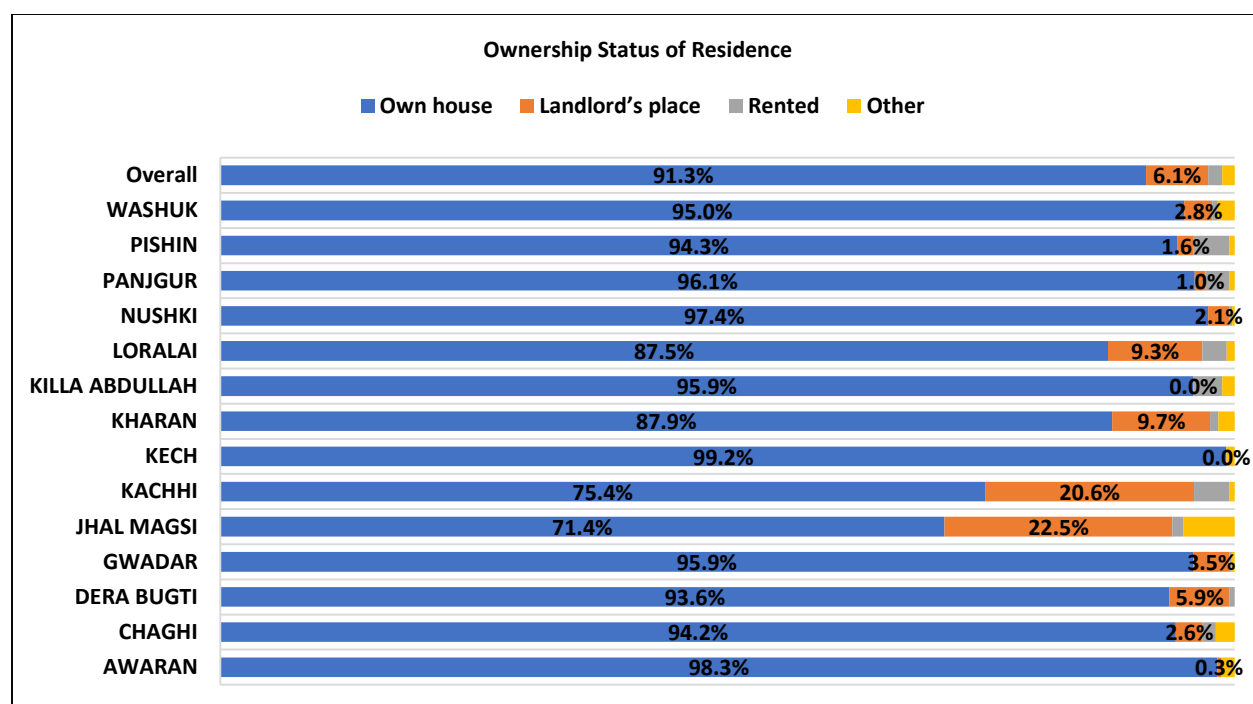
Housing, Water, and Sanitation

Housing

On an overall basis 91% households identified their place of residence as their own house. This was followed by 6% households which were living in landlord's place, and 1% living in a rented house.

District wise data shows that the largest number (99%) of households living in their own house were from Kech, followed by Awaran 98%, Nushki 97% and, Panjgur 96%. The least number (71%) of households who lived in their own house was from district Jhal Magsi. The largest numbers of households who reported living in a landlord's place were in district Jhal Magsi (23%) and Kacchi (21%) respectively.

Figure 61: Ownership Status of Residence



Type of House

The households were asked to report type of house they live in. Just over 4% households live in Pakka (cemented) houses, whereas 6% households live in Semi-Pakka (mixed) houses. On the contrary, nearly 83% households live in Kacha (non-cemented) houses. Other type of house where the households reside are wooden (4%) and Chora (3%).

District wise, the largest number of households living in Pakka houses was in Panjgur District (19%), followed by Killa Abdullah (9%) and Gwadar (8%). Conversely, the least number of households living in Pakka houses were in Kharan (0.5%) followed by 0.8% each in Jhal Magsi and Loralai Districts respectively. There was no Respondent in Dera Bugti who reported Pakka house as a place of residence.

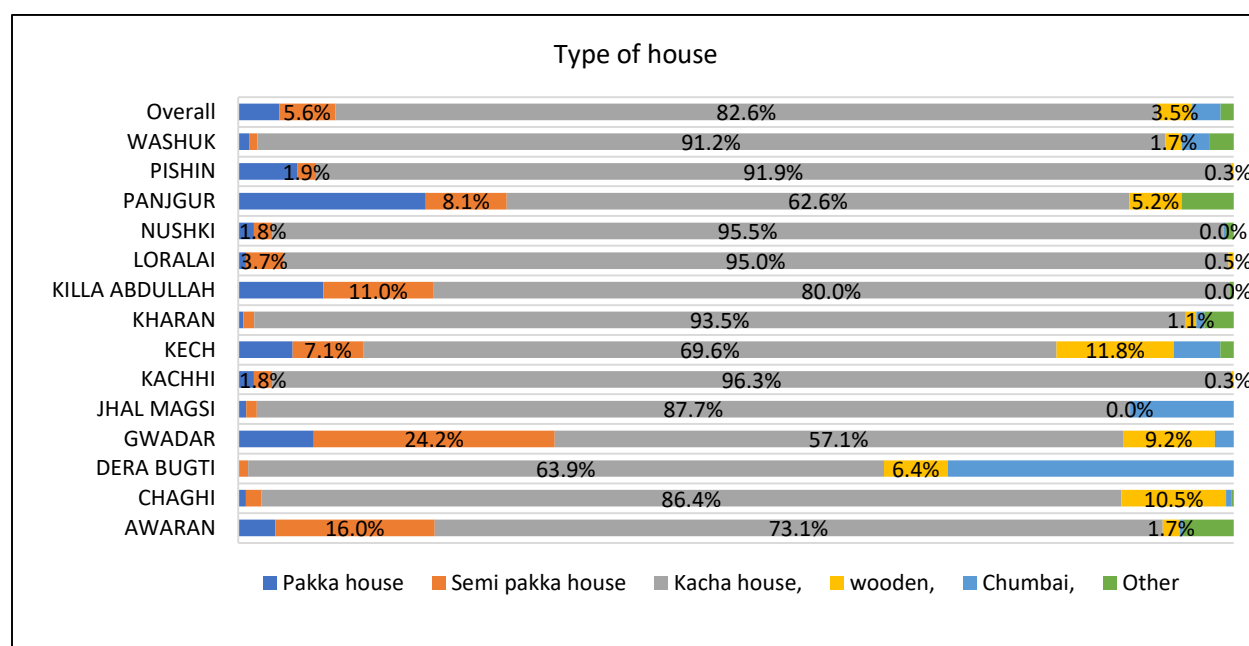
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Similarly, more than 24% of the households of Gwadar district said that their place of residence was Semi-Pakka., followed by Awaran (16%), Killa Abdullah (11%) and Panjgur (9%) respectively.

Furthermore, a high percentage of households ranging from 64% in district Dera Bugti to 96% in Kachhi district live in Kacha houses. Across the districts, in Washuk 91%, in Pishin 92%, in Kharan 94%, in Nushki 96%, and in Kacchi 96% of surveyed households live in Kacha houses.

Likewise, there are many households that live in wooden houses. The largest number of households living in wooden houses is in Kech (12%), followed by Chaghi (11%), Gwadar (9%), Panjgur (5%), and Dera Bugti (6%). Similarly, 29% households from Dera Bugti, 10% from Jhal Magsi, 5% from Kech live in chumbai/chora. The district wise distribution of other residents residing in chumbai as depicted in the table below was reported for Awaran at 0.3%, Chaghi 0.5%, Kharan 0.8%, and Nushki 0.3%.

Figure 62: Type of House

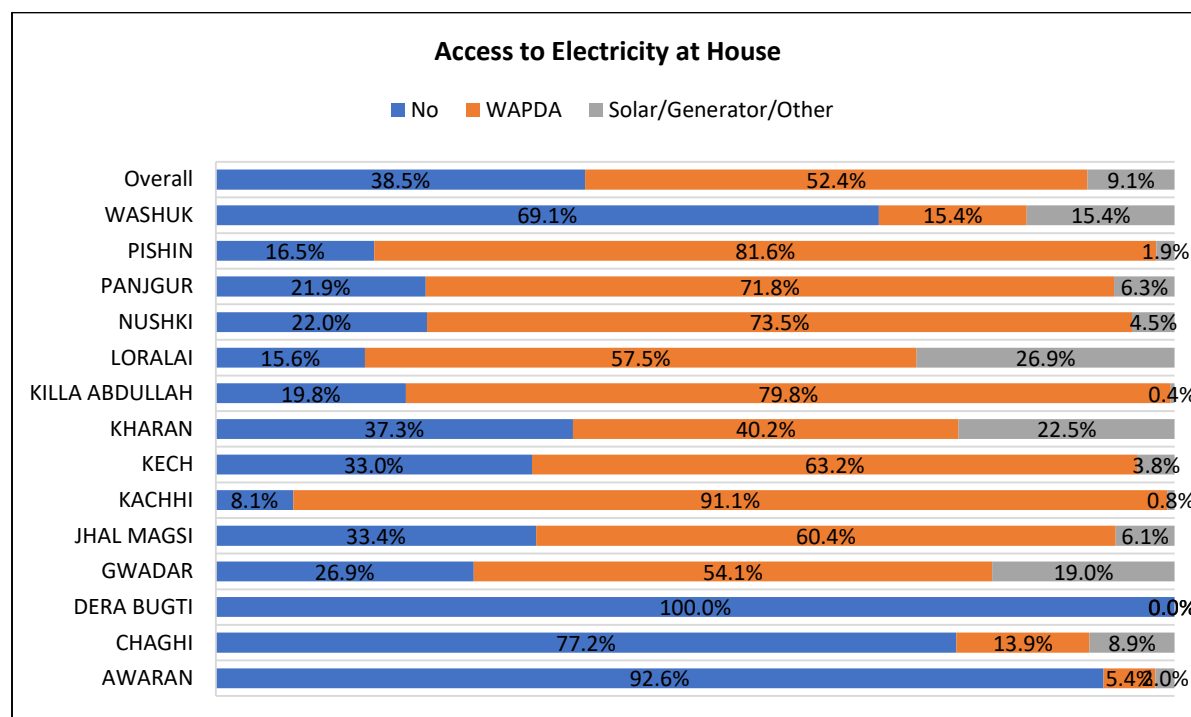


Access to Electricity

A very large number of households do not have access to electricity. Overall, 61% of surveyed households have access to energy/electricity. The largest source for electricity was WAPDA reported by 52% households, followed by solar/generator/others reported by 9% households. District wise analysis shows that not a single surveyed household in Dera Bugti has access to electricity, followed by Awaran (93%), Chaghi (77%), Washuk (69%), Kharan (37%), Jhal Magsi (33%), Kech (33%), and Gwadar (27%).

WAPDA as source of electricity was reported by more than 91% households in Kacchi district, followed by Pishin (82%), Killa Abdullah (80%), Nushki (74%), Panjgur (72%), and Kech (63%). With reference to use of solar/generator/other sources; the largest number of users were in district Loralai (27%) followed by 23% in Kharan (22.5%) and 19% in Gwadar.

Figure 63: Access to Electricity at House



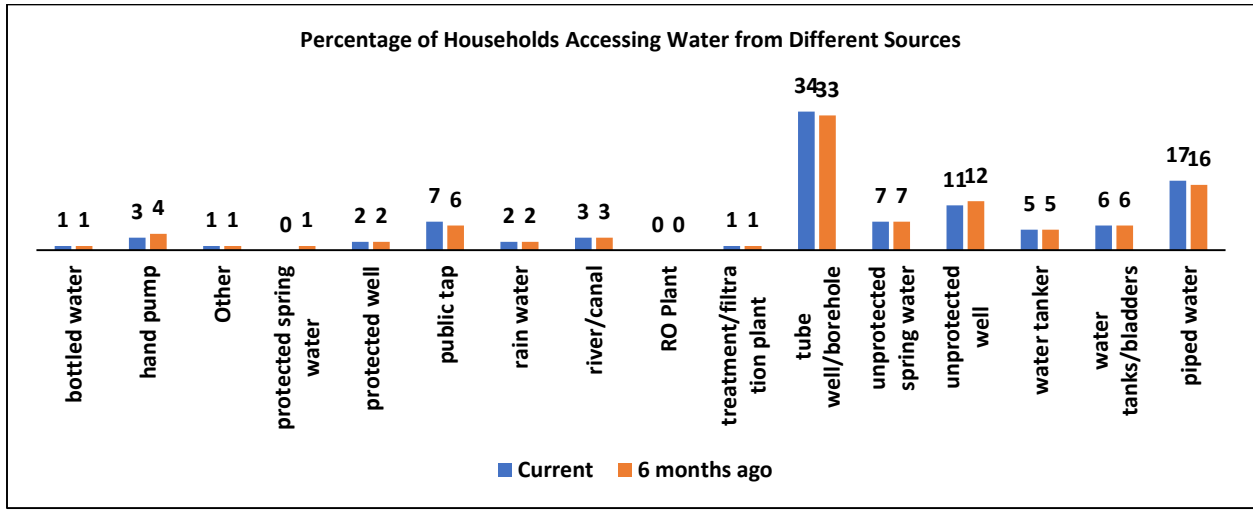
Access to Water

Overall 76% of the surveyed population currently have access to improved²⁶ water sources, with 24% forced to rely on unimproved sources of drinking water (Figure 64). While access to an improved water source is not a measure of water safety, improved sources are more protected, offering an increased likelihood that water is safe for consumption. The majority of respondents rely on water from borehole/tube wells, piped water or unprotected wells or springs.

²⁶ Improved water sources include: piped water, public tap, tube well or borehole, treatment plant, protected well, protected spring, hand pump, bottled water, water tanks or bladders. Unimproved sources include: unprotected well, river/canal, unprotected spring, rainwater.

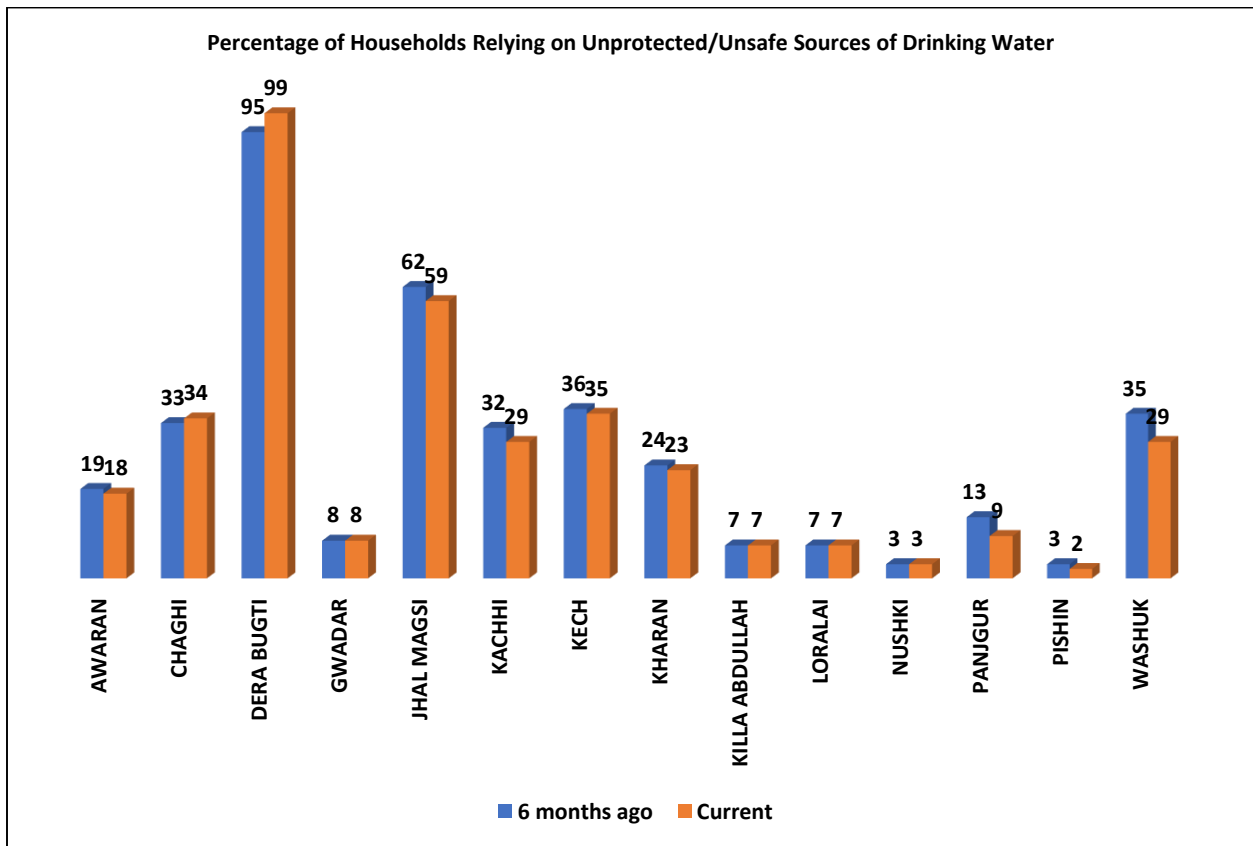
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Figure 64: Types of Water Systems Accessed by Households



However, access to improved sources varies significantly by district, as shown in Figure 65, where, for example, 99% of those surveyed in Dera Bugti and 59% in Jhal Magsi rely on unimproved sources of water. However, respondents reported no change in access over the last six months.

Figure 65: District Wise Percentage of Respondents Relying on Unprotected / Unsafe Sources of Drinking Water Currently and Six Months Ago

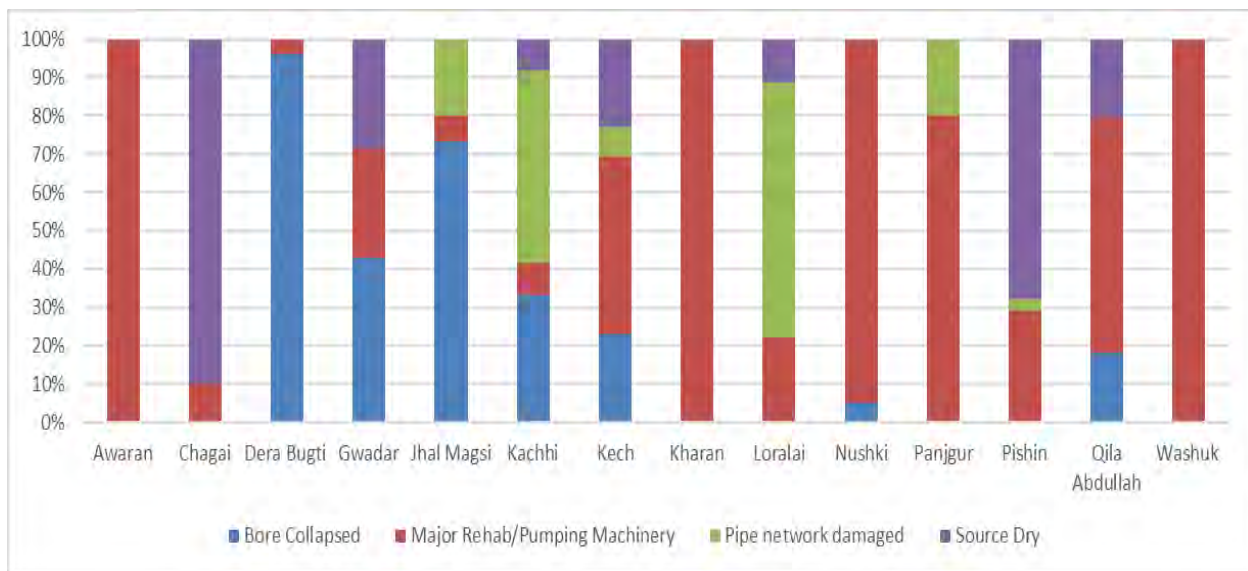


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A comparison of access to unimproved drinking water sources indicated that 21% of women-headed households compared with 25% of men-headed households rely on unimproved sources for drinking, indicating no major discrepancy based on gender. However, 30% of respondents who indicated their source of livelihood was agriculture/livestock based relied upon unimproved sources of water, followed by non-agricultural day laborers (28%), and others (18%). Whereas only 14% of households with jobs/business as main source of livelihood relied on unimproved water sources.

Secondary data, collected from the Public Health Engineering Department (PHED) in Balochistan provides some insight into the status of water supply schemes across fourteen affected districts. Though further analysis is required to localize this data against other vulnerabilities, this data is given below.

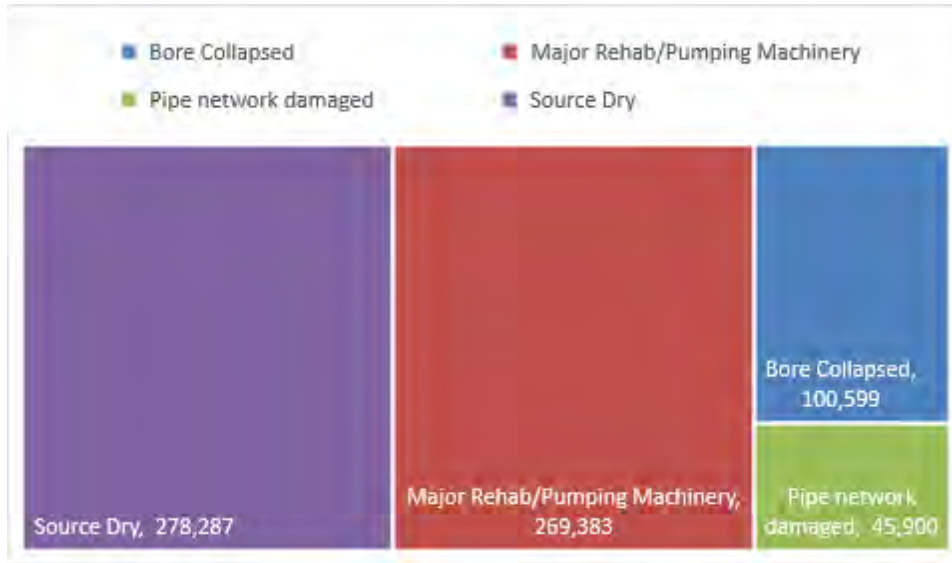
Figure 66: Reasons for Non Functionality of Water Supply Schemes in Fourteen Districts (Source: PHED Balochistan)



These damaged water supply schemes account for drinking water serving approximately 700,000 drought affected individuals. This data is preliminary and work is ongoing to validate this information.

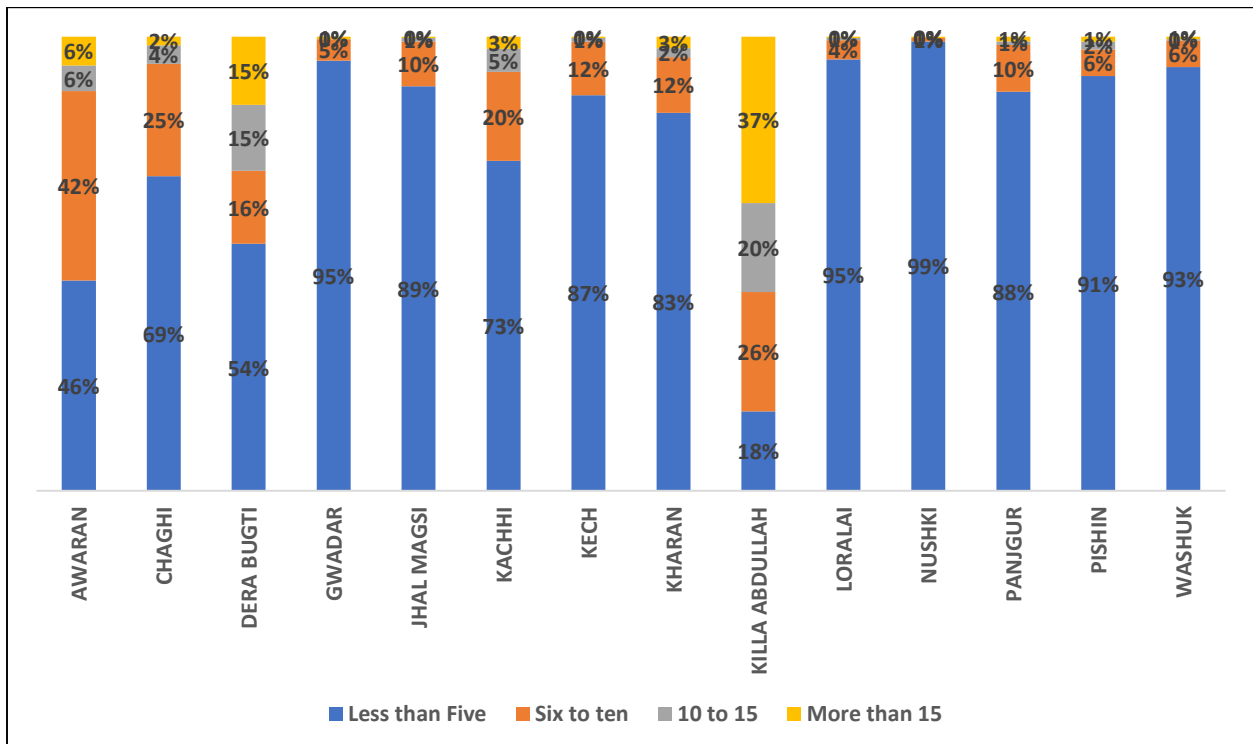
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Figure 67: Reasons for Water Scheme Non Functionality and Population Unserved as a Result (Source: PHED Balochistan)



Further to the sources of water available to the population, the amount of water available, the distance travelled to collect this water and whether the respondents feel this water is sufficient to meet their needs is important to understanding their level of access. Figure 68 illustrates the liters of drinking water available per person per day, regardless of whether that water is considered safe or unsafe for drinking purposes. Alarminglly a majority of respondents across all districts reported access to 5 liters or less per person per day.

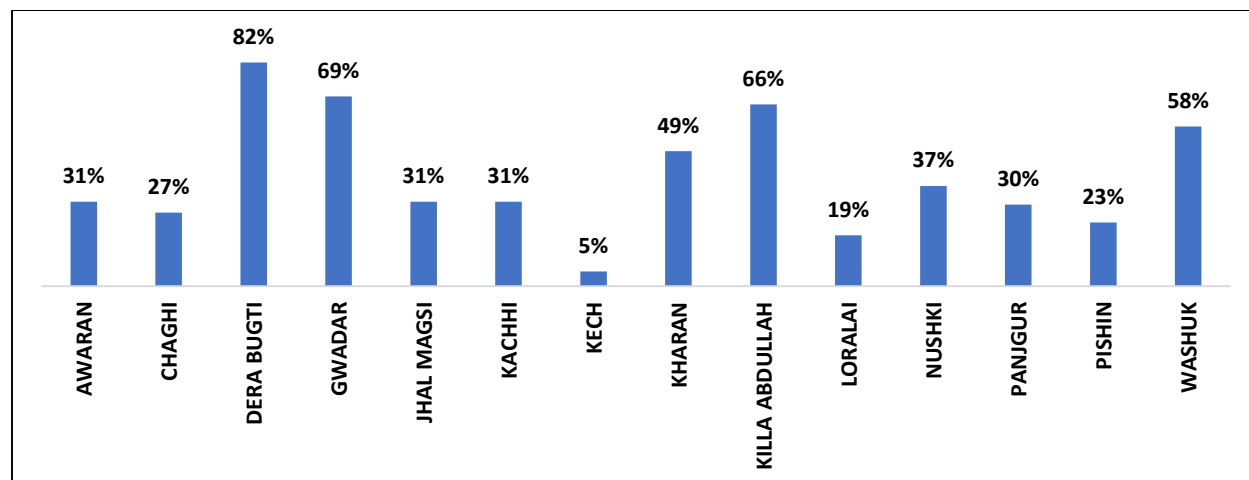
Figure 68: District Wise Litres of Water Available Per Person Per Day



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Overall, 38% of respondents indicated that they feel that the drinking water available is insufficient for their household, with 82%, 69%, 66% and 58% of households from Dera Bugti, Gwadar, Killa Abdullah and Washuk respectively reporting as such. The district-wise breakdown is shown in Figure 69 below.

Figure 69: Percentage of Respondents Indicating That Drinking Water is Insufficient for Their Daily Needs



Furthermore, 21% of women headed versus 40% of men headed households reported drinking water was insufficient for their needs. There was no major difference in respondents to this question based on their livelihood. Lack of drinking water for agriculture and livestock has also been reported as a critical issue (Table 7).

Table 7: Cross Sectional Analysis on Perceptions of Sufficiency of Water for Drinking (Percentage who Reported Insufficient Access)

Category		Percentage
Gender of Head of Household	Male	40%
	Female	29%
Source of livelihood	Agriculture and livestock	41%
	Day labor	38%
	Job and business	35%
	Others	37%

The distance travelled to collect drinking water is another important measure of access. Figure 70 highlights the amount of time respondents reported that they walk, one-way, to collect drinking water, with Figure 71 further breaking this down for those respondents who rely on unimproved sources of water. Alarmingly, of those with access to unimproved sources, over 50% of respondents in Dera Bugti, Gwadar, Nushki, Pishin and Washuk reported walking for more than 30 minutes to access what is unsafe drinking water. However as indicated earlier, there was no significant change in access reported over the last six months, indicating longer term development issues related to drinking water access for these populations.

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Figure 70: District Wise Time Travelled to Water Source, One Way

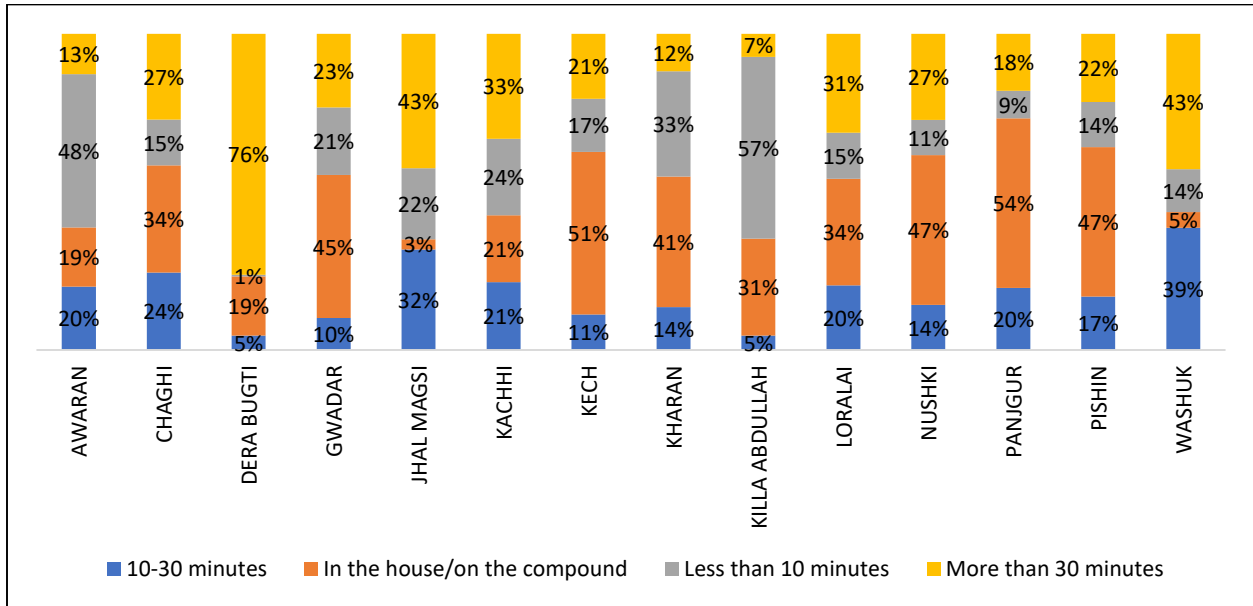
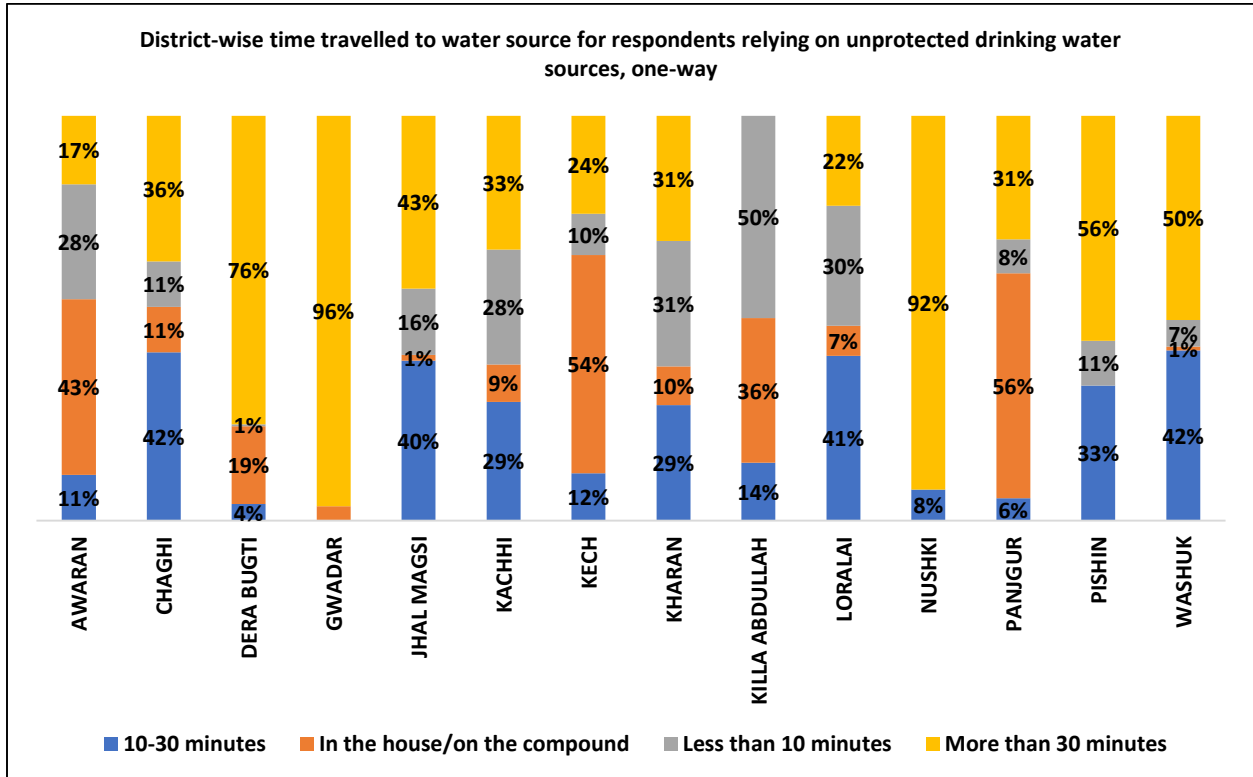


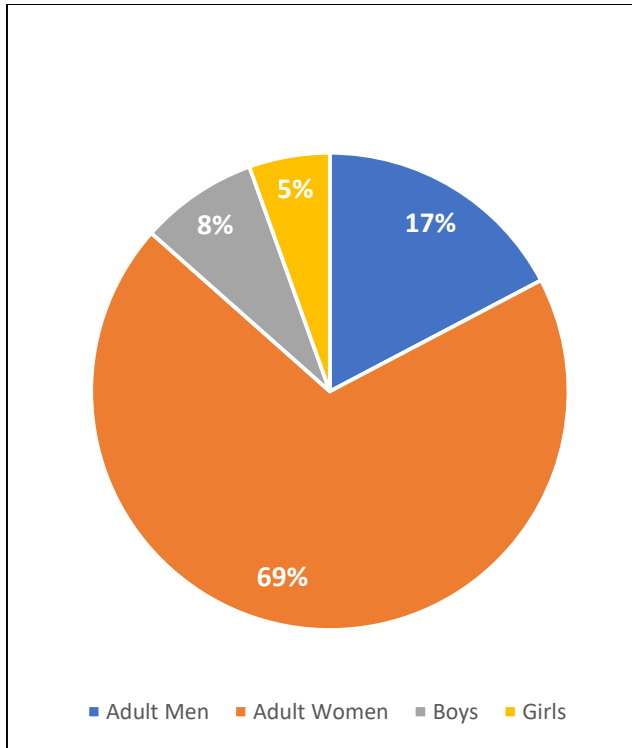
Figure 71: District Wise Time Travelled to Water Source for Respondents Relying on Unprotected Drinking Water Sources, One Way



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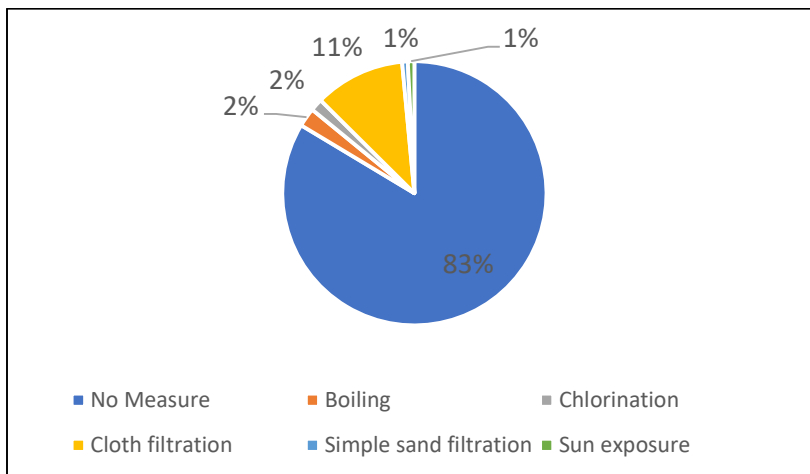
As expected, women carry the largest share of the burden of collecting water (Figure 72), with the exception of Killa Abdullah, where 62% of men are reported to fetch water versus 23% of women, 8% of boys, and 7% of girls.

Figure 72: Household Water Collection Responsibilities Overall



Additionally, a majority of respondents reported no household water treatment prior to drinking. Eleven per cent of respondents reported using cloth filtration. Figure 73 shows the overall breakdown for household water treatment measures.

Figure 73: Households Reporting Water Treatment at the Household Level



Access to Sanitation

Approximately half of the surveyed population has no access to a household toilet and therefore practice open defecation (48%). Figure 74 details the type of latrine in use by survey respondents. A comparison of current access versus six months ago shows no significant change (Figure 75). There is no data thus far to indicate that open defecation has increased due to drought.

Figure 74: District Wise Access to Type of Toilet

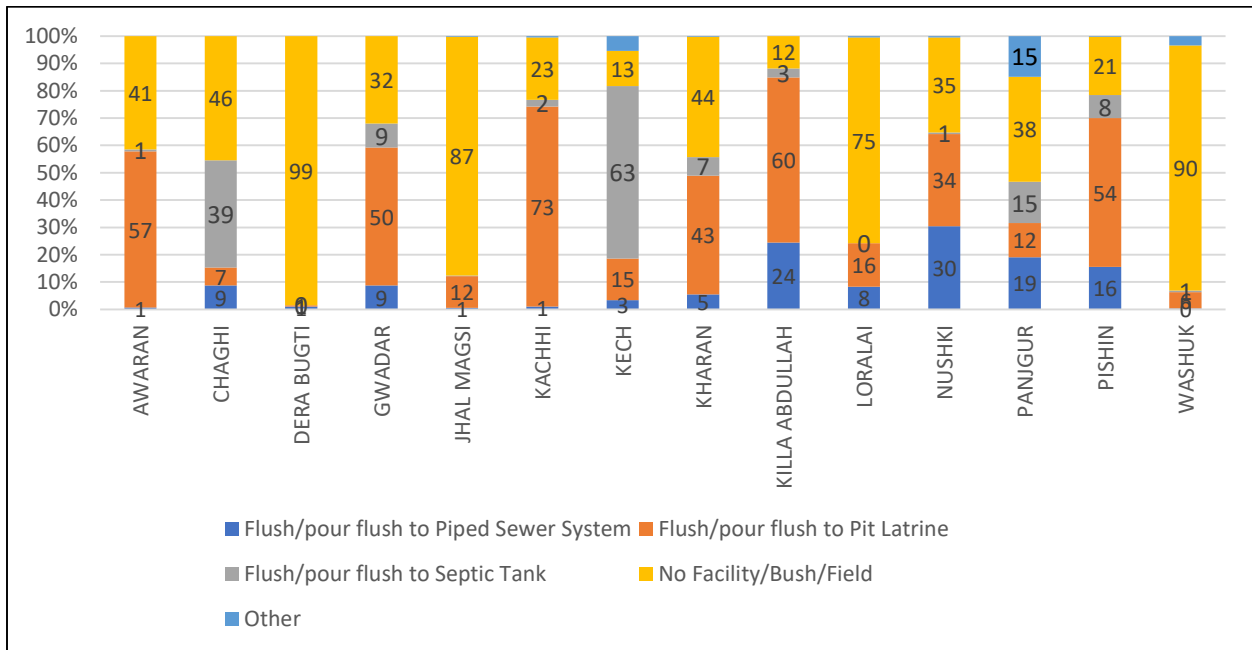
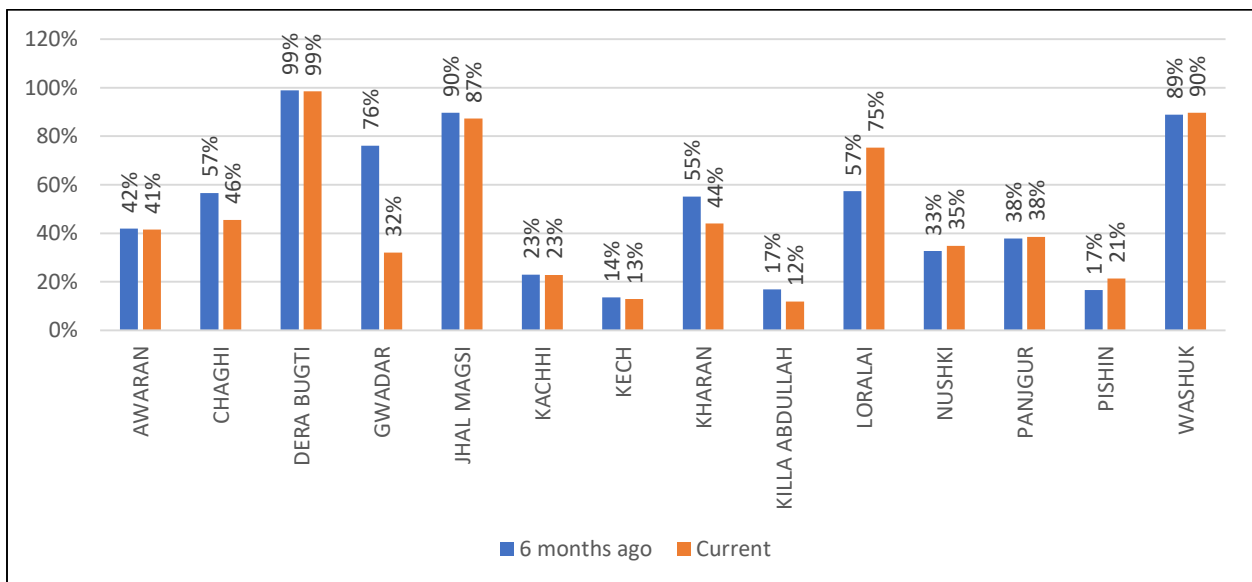
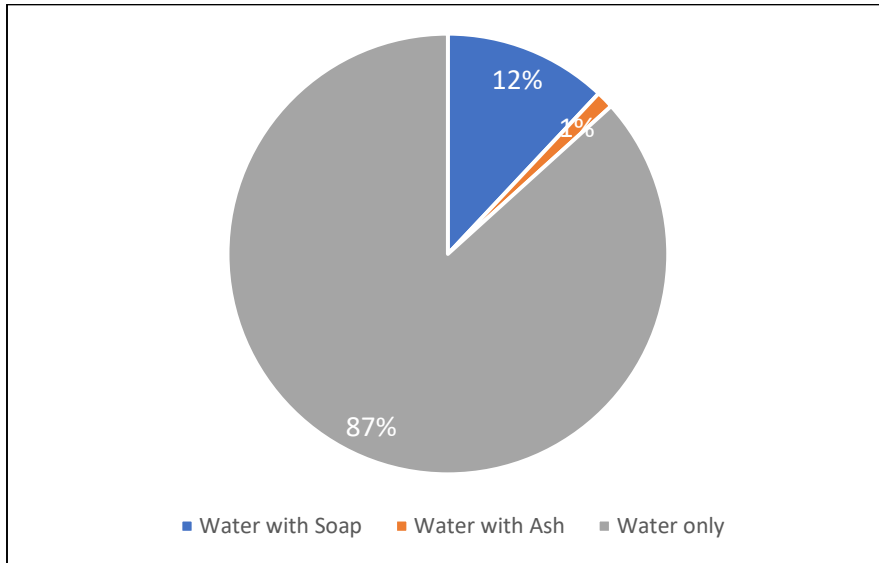


Figure 75: Open Defecation Practices of Surveyed Population Currently and Six Months Ago



A majority of respondents indicated that they wash their hands at critical times, including after defecation (92%), before prepared food (87%), and before eating (87%). However, a majority of respondents (87%), regardless of their source of livelihood, wash their hands with water only (Figure 76).

Figure 76: Hand Washing Practices

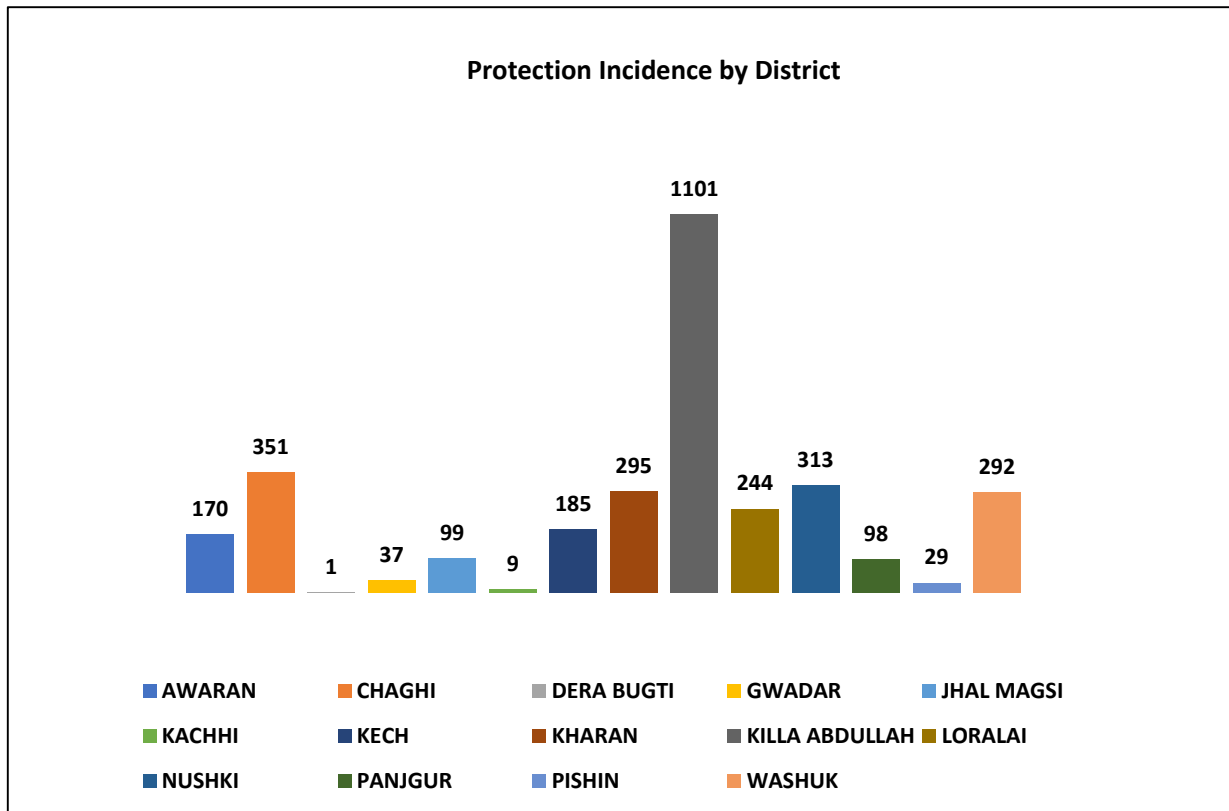


Protection

Protection Related Incidence

Overall, 48% of the households have highlighted that protection incidents are happening. These incidents were higher in Killa Abdullah, Chaghi and Nushki.

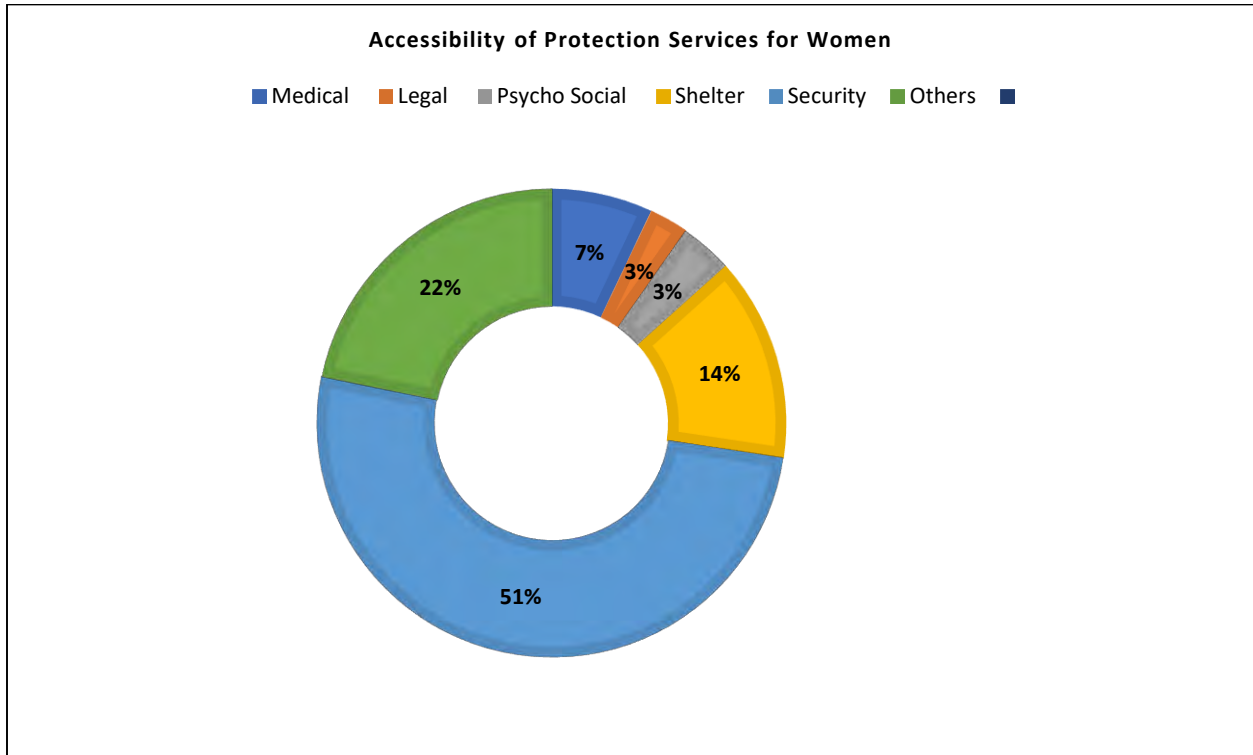
Figure 77: Protection Incidents by District



Availability of Multi-Sectoral Protection Services for Women

Overall, 51% of the households ranked security (police) as the most accessible protection related service for women followed by 22% of households also claiming that Levies are also accessible. Similarly, 14% households considered that shelters are accessible for women. Households from Chaghi district noted that shelter is an available option for women in the district. Only 7% of households said that medical services are accessible. District Panjgur received the highest response in terms of accessibility of medical services. Only a few households identified legal and psychosocial support services as accessible services for women.

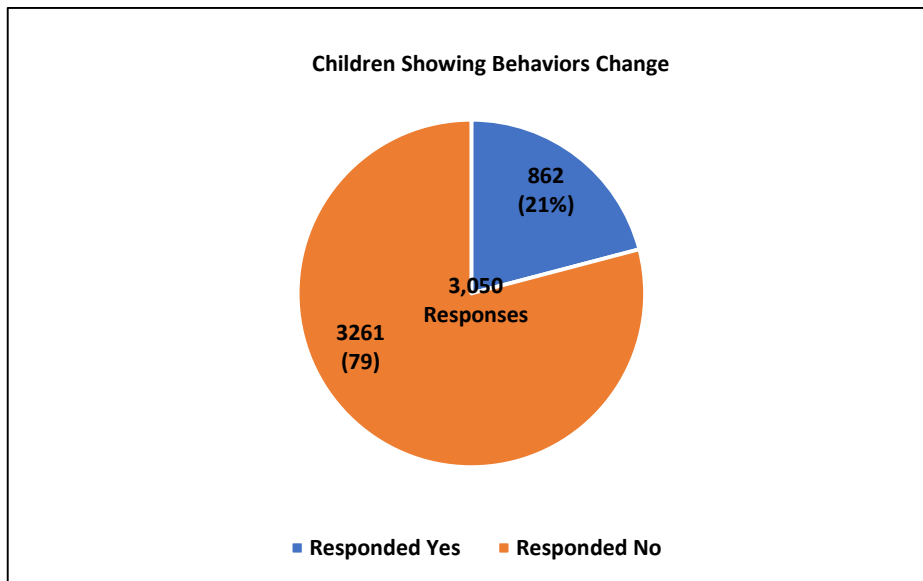
Figure 78: Accessibility of Protection Services for Women



Children Showing Behaviors Change

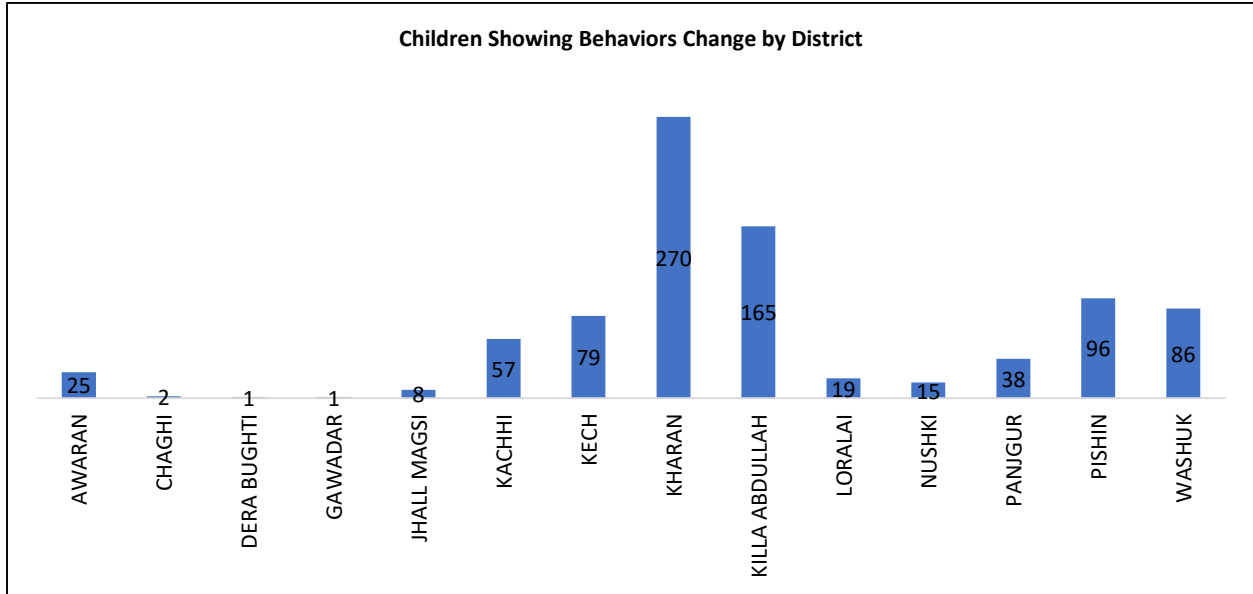
Overall 79% of households observed no behavior change among children while 21% of households indicated that they have noticed some behavior change .

Figure 79: Children Showing Behaviour Changes



Three districts namely Kharan, Killa Abdullah and Pishin have reported significant behavior change among children.

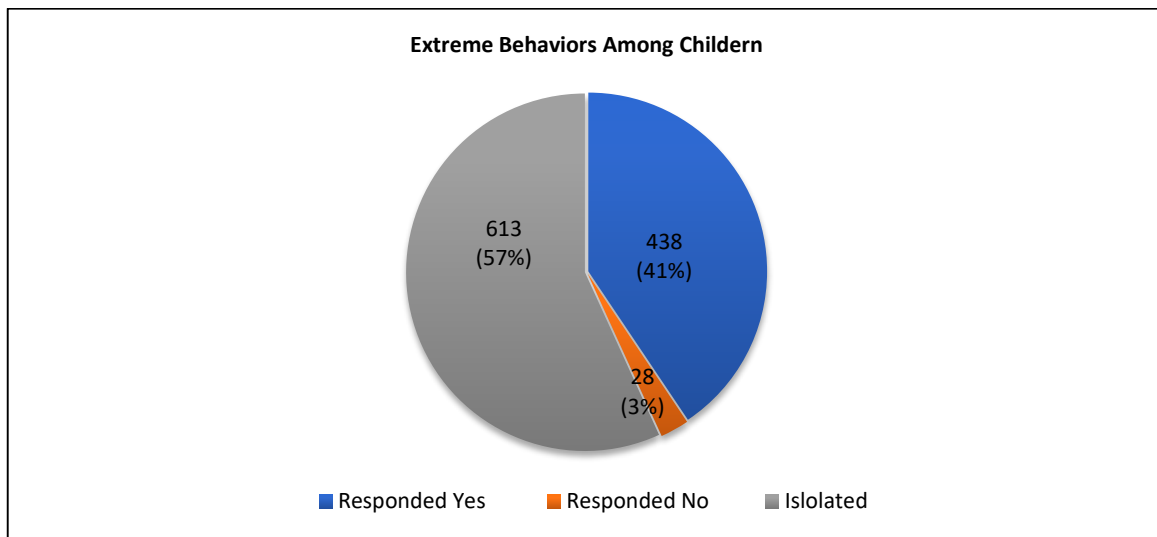
Figure 80: Children Showing Behaviour Change by District



Extreme Behaviors of Children

41% of those who responded confirmed that they have observed extreme behaviors from children in their household. 57% of these behaviors are considered mostly as isolated cases.

Figure 81: Extreme Behaviour among Children

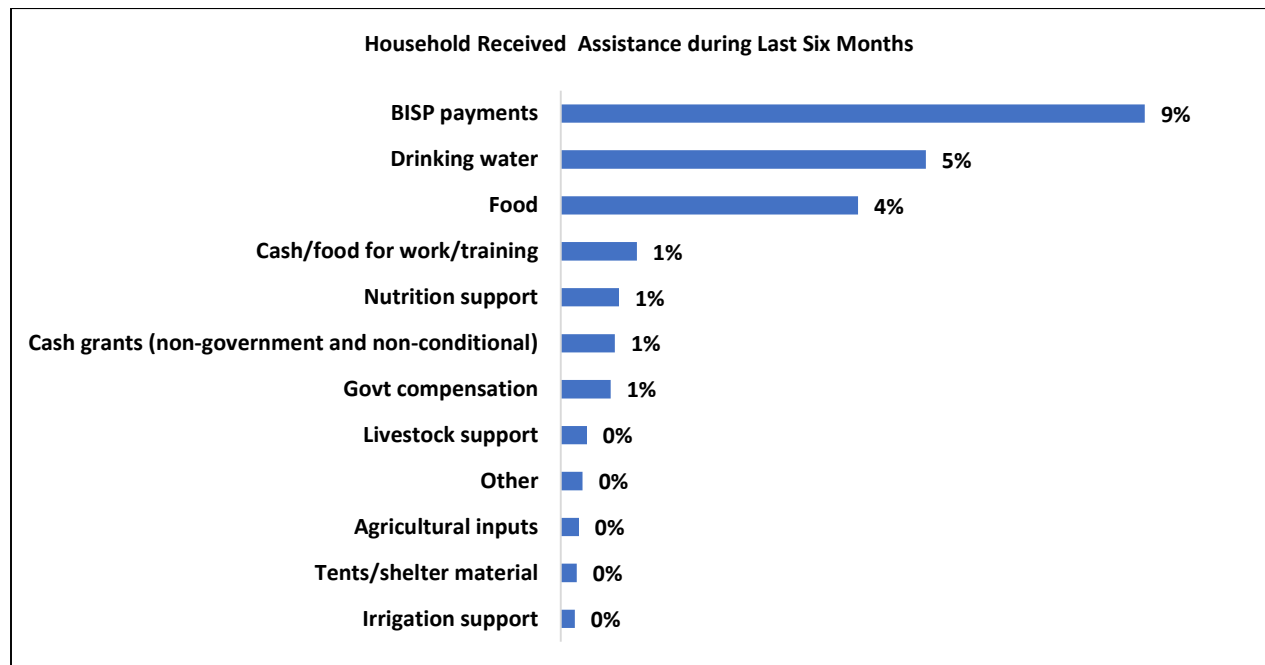


Receipt of Assistance

Data on assistance received by the households in the sample highlighted that other than payments from the Benazir Income Support Program (BISP) and some food and water related assistance, households did not receive much assistance from any source including support from the Government of Pakistan, Non-Governmental Organizations, United Nations, Religious Organizations, Relative/Friend/Community member, or any other type of humanitarian organization. Overall, 9% of the households received payments from BISP, 5% of the households received some assistance in term of drinking water and 4% received food. This highlights the need of comprehensive response plan for the affected communities. Households who received some type of assistance were asked to mention the source of assistance as well.

Those who received food assistance reported relatives/friends (68%) and government agencies (27%) as the sources of assistance. Whereas, water related assistance was provided by government (65%) and NGOs (20%).

Figure 82: Assistance Received by the Household during the Past Six Months



Conclusion and Recommendations

Overall, the main findings of this assessment report show that food insecurity is very high and poses a major challenge in drought affected districts of Balochistan. Overall, 74% of the surveyed households are moderately or severely food insecure, whereas 22% are severely food insecure. This is measured using the Food Insecurity Experience Scale (FIES) developed by the FAO, which is used to compute Sustainable Development Goal (SDG) indicator 2.1.2: the prevalence of moderate or severe food insecurity in the population.

The drought has adversely impacted the agriculture sector. The surveyed farming households reported a reduction in cultivation area of several crops. In comparison to 2016-17 agricultural seasons, overall cultivation area (measured in acres) for wheat reduced by 14% in 2017-18, rice by 10%, cotton by 33%, sorghum by 27%, onions by 17%, pulses and potatoes by 20% each, tomatoes by 9%, vegetables by 5%, fodder crops by 16%, dates by 5%, and grapes and melons by 12% each.

The farming households are also experiencing reduction in the availability of water for agricultural activities. Overall, 25% of farming households reported that water for irrigation was not available at all compared to the amount available in the previous year, 49% reported a severe shortage, 18% reported a moderate shortage, and 8% reported a slight or no shortage of water. Reduction in crop cultivation is mainly attributed to less water being available. The reduced availability of water reported by farming households is attributed to no or very little precipitation and persistent dry conditions which have been prevailing in drought affected areas. Reduction in both water availability and crop cultivation led to limited cereal production (wheat, rice, maize etc.) as overall, cereal production was only sufficient for household consumption for about 3 months.

The surveyed farming households reported limited availability of water for irrigation, less rain-fall unavailability of agricultural inputs, lack of manpower, financial constraints and unavailability of seeds, loss/lack of draught animals etc. as major reasons for the change in crop cultivation.

Livestock including poultry is the mainstay of the affected areas of Balochistan. As small and marginal farmer's livestock often is a valuable asset to help supplement incomes from their small landholdings. Livestock ownership diversifies production and resource management options, increases total farm production and income. The current episode of drought has also adversely affected the livestock population. Of the surveyed households who own livestock, 55% reported deaths of cattle during the past six months, 76% reported deaths of goats, 78% reported deaths of sheep, 45% reported deaths of buffaloes, 69% reported deaths of camels, 43% reported deaths of donkeys, and 68% reported deaths of poultry. Surveyed households reported losing 28% of the cattle that they owned six months ago, 30% of buffaloes, 37% of their goats, 38% of sheep, 41% of camels, 24% of donkeys and 35% of their poultry. The deaths/losses of animals are reported for surveyed households only. These deaths/losses occurred during the six months preceding the survey.

In terms of food consumption, the assessment revealed that overall 22% of the households have 'acceptable food consumption', 18% have 'poor consumption' and 60% have 'borderline consumption'. Overall, 50% of the surveyed households adopted "high", 13% adopted "medium", while 37% adopted "No/low" level food-based coping strategies. The higher-level coping strategy index indicates a more serious food security situation. It suggests that food gap exists in the area and vulnerable households are adopting short-term coping strategies. Furthermore, overall, 70% of the surveyed households were using

Balochistan Drought Needs Assessment (BDNA) Report

at least one livelihood-based coping strategy to meet their food needs. 19% of the households were adopting 'stress strategies', 27% were adopting 'crisis strategies' and another 24% adopted 'emergency' irreversible strategies. These irreversible coping strategies negatively impacts food security and livelihood in the future.

Analysis indicted that the surveyed households reported a 5 percent reduction in family income compared to six months ago i.e. PKR 21,553 to PKR 20,371. Household expenditure trends indicated that overall, 44% of the households spent a very high share (more than 75% of the total household expenditure) on acquiring food; while 19% of the households spent a high share (65-75% of the total expenditure) on acquiring food.

According to the analysis, 68% of respondents confirmed contracting new debt during the last six months; a major portion of the newly contracted debt was required to cover food needs (87%) and health needs (72%) followed by the need to cover general household expenses and to repay earlier debts (21%). Overall, on average, PKR 100,005 is the outstanding debt against each household.

Overall 6% of the households in the sample migrated at some point during the last 6 months. However, disaggregating the data by reason for migration shows that 3% of the households performed routine seasonal migration whereas 2% were displaced due to the prevailing drought in Balochistan.

In terms of health indicators, on average household members travel around 29 kilometers to the health facility they use the most. Overall, 14% of the households have an adult household member (above 18 years age) who is disabled and 6% have a child (below 18 years of age) who is disabled. Overall, 37% PLW fell ill during the month preceding the survey and the same was reported for 22% of boys under the age of 5 and 20% of girls under the age of 5.

Based on preliminary results from the NNS 2018, the GAM rate (by weight for height) is highest in district Panjgur (33.4%) followed by Jhal Magsi (27.6%), Kacchi (26.3%) Dera Bugti (23.3%), Pishin (18%), Chaghi (17.3%), Kharan (16.2%), Kech (15.7%), Nushki (15.5%), Loralai (14.8%), Washuk (13.7%), Killa Abdullah (12.1%), and Gwadar (11.8%). While lowest malnutrition rate was observed in district Awaran (10.5%) however provided the aggravating conditions it still will be considered serious.

Based on the analysis and results from this multi-sector drought assessment, the following key recommendations are submitted to the PDMA Balochistan to alleviate the suffering of the households and individuals due to the drought in parts of Balochistan.

Here it is important to note that the support and active role of all stakeholders; provincial government including PDMA Balochistan, line departments including agriculture, livestock, planning, food, health etc., local district administration, relevant federal ministries/organizations, UN organizations, national and international organizations including donors would be important to implement these recommendations to improve the situation of drought affected communities in Balochistan. PDMA Balochistan with the support of local administration has already started distribution of food and other essential non-food items in some drought affected areas. Likewise, line departments particularly agriculture, livestock, food and health may also initiate emergency drought response in their respective domains to address the problems faced by the drought affected communities. The line departments can consider the recommendations below and extend support in the short and medium/long term.

Recommendations

Food Security and Agriculture/Livelihood:

Short Term:

Agriculture

- Distribution of drought resistant and high yielding crops (such as sorghum (Jowar), millet (Bajra), maize), pulses (mung, mash) legumes and vegetable seeds
- Fruit plantation such as almond, apple, apricot, grapes, peach, pomegranate, dates, etc
- Livestock vaccination such as PPR, FMD campaign to protect them from prevailing diseases such
- Awareness, advocacy campaign for the timely vaccination of livestock
- Immediate level Livestock Protection and Management interventions including; supply of fodder, feed, fodder seed, water and animal health camps by engaging the services of all technical agencies and the concerned line departments
- Drought resistant fodder production and seeding of rangelands to produce quality fodder
- Capacity development of farmers on improved livestock practices and technologies
- Setting up of temporary mandies (markets) for feed, fodder and animals for de-stocking / relocation of livestock in case of market disruption and animal mortality due to prolonged emergency
- Shelters to needy and vulnerable livestock/poultry handlers
- Repair and rehabilitation of water resources for agriculture and livestock such as tube well, water courses, karez and wells

Off-Farm Livelihood

- Business start-up/ entrepreneurship and market driven skills development (basic numeracy & literacy, financial numeracy and provision of tool kits)

Food Security

- Cash plus interventions particularly focusing on women and other vulnerable households in collaboration with BISP
- Conditional cash-based interventions focusing on food security nutrition and livelihood
- Integration of cash transfer programmes and social protection to address food security and nutrition
- Restoration of asset base through the provision of conditional cash grants
- Training on kitchen gardening (including demonstration of kitchen gardening on brackish water especially in arid/desert area), diet diversity, food processing and food safety
- Regular monitoring of food security and livelihoods through seasonal surveys such as Livelihood and Food Security Assessment (LFSA) and IPC acute food insecurity analysis

Medium/Long Term:

Agriculture

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- Capacity building of farmers on improved agriculture (Climate Smart Agriculture (CSA) and Conservation Agriculture (CA) through Farmers Field Schools (FFS), Junior Farmer Field Schools (JFFS), Farmers Business School (FBS) and Women Open Schools (WoS)
- Introduction and up scaling of innovative and proven agricultural techniques including; bio-saline agriculture, climate smart agriculture, soil management through proper fertilization, zero tillage, crop rotation, strip farming and mulching
- Introduction of new technologies for drought resilient orchard management and forest plantation (especially testing cultivation models on brackish water)
- Introduction of non-traditional climate adaptive fruit and forest plants
- Establishment of nurseries of forestry plants at feasible locations is also recommended so communities can get plants
- Forest Plantation (olive, moringa etc)
- Range land development schemes
- Women specific small-scale nursery development (fruits, forest and vegetables) and communal gardens owned by group of women
- Promote kitchen Gardening and capacity building kitchen gardening, diet diversity, food processing and food safety through Farmer Field School/ Women Open School (FFS/WOS)
- Promote women managed integrated homestead gardening and cottage enterprises for agribusiness development and better nutrition through horticulture-based interventions
- Introduction of new and healthy food/fodder for livestock fodder
- Identification of production hubs, small scale agri-enterprises establishment and value chain development
- Creating agricultural knowledge through adoptive research and extension
- Repair and maintenance of existing livestock facilities with adoption of good livestock management practices
- Livestock breed improvement interventions and promotion of poultry and herd farming
- Improve and modernize the sheep breeding through artificial insemination (AI) especially in the northern part of the province
- Introduction of innovative technology and practices for meeting animal feed shortage.
- Research projects to improve the reproductive efficiency of cattle in small holders' production system in the province
- A comprehensive livestock focused drought mitigation strategy to combat drought recurrence need to be formulated
- Create awareness towards maintenance of disease-free herds, germ-plasm improvement and storage arrangements for poultry products, meat, milk and other dairy products
- Organization of community managed rotational grazing based on the continuous monitoring and assessment of carrying capacity and seeding of range lands with suitable grass species
- Pasture management through controlled grazing and range land development
- Training of female/male community livestock extension workers (CLEWs) for preventive and curative animal care and provision of starter kits Trainings on livestock and poultry rearing, Livestock Farmer Field Schools (LFFS), LEGS
- Women specific back-yard poultry farming
- Drought resilient seed multiplication and establishment of seed and fodder banks

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- Livestock specific small-scale enterprises/value chain development (meat, milk, wool and hides) and introduction of livestock insurance
- Livestock insurance and enterprise development
- Water saving through introduction of efficient irrigation system such as drip irrigation etc and new low-cost irrigation methods
- Improved water management and conservation practices (including land leveling, terraces reconstruction, check dam etc)
- Rainwater harvesting infrastructure development at larger scale (community level) for livestock and cropping
- Water harvesting techniques to conserve water in tobas/tarais, where possible and conserve water by using geo-membrane for drinking/use at household level
- Evacuation and storage of runoff and storm water drains (dhoras) in the retention basins ponds
- Establishment of water accounting systems in order to closely monitor water levels and respond promptly to dry spells and droughts
- Promotion and demonstration of hydroponic practices and technology for fodder production
- Conserve rain water by checking surface run offs through structural mitigation measures
- Construction of water trough for animals near to hand pumps according to standards
- Activation of water users associations

Off-farm Livelihood

- Revival of small-scale cottage industry (pottery, vocational trainings centers, display/crafts centers, solar & renewable energy, small trades (retail/ wholesale)
- Restoration of community livelihood assets
- Livelihood diversification, income generation and employment creation interventions
- Skill development trainings in different trades
- Entrepreneurship promotion and development (capacity building and inputs provision in electrician, automobile and mobile repair etc.)
- Promote eco-tourism that may attract lots of tourists in Balochistan and local population capacities should be built to earn their livelihood

Food Security

- Set roadmaps and investment plans for food & nutrition security with policy actions towards establishment of a food & nutrition security surveillance system
- Action Plan for reaching the extremely vulnerable (landless, very poor) in remote areas to deliver conditional food subsidy/food rations linked to productive assets creation
- Review / improve food supply chains to minimize food losses

General and Policy Level

- Early Warning Early Action (EWEA) system
- Drought mitigation policy/strategy for drought prone areas
- Climate Smart Agriculture profiling and implementation of CSA village approach
- Community Based Disaster Risk Management (CBDRM)
- Integration with nutrition support programmes

Health:

- Rapid assessment of the available services in the drought affected districts: adaption of data collection tool, training of data collectors, data collection, data analysis, report writing
- Provide more information on the availability of health services to the drought affected population
- Improving access to essential emergency healthcare services with specific emphasis on maternal and child health, treatment of communicable and non-communicable disease including provision of mental health services
- Monitoring of disease trends and response to disease outbreaks
- Implementation of Disease Surveillance system: Monitoring Health Status of the Affected Population and Respond to Outbreaks of Communicable Diseases
- Support Integrated Health Service Delivery System: Constitute 4 mobile health teams in consultation with DoH, PPHI and PWD to conduct outreach services (4 days a week) in drought affected districts
- Improvement in water supply, water quality monitoring, sanitation and hygiene conditions in selected health facilities
- Train Public Health Engineering Department (PHED) staff on water quality monitoring using WHO guidelines and tools

Nutrition:

- As per WHO guidelines, Global Acute malnutrition (GAM) rates are above emergency thresholds (> 15%) in most of the drought affected districts as per recent NNS 2018, unpublished data. Community based Management of the Acute Malnutrition- CMAM programme is recommended under which SAM children (girls and boys) having underlying medical complications will be referred and treated at nutrition stabilization centers established at THQ/DHQ Hospital.
- Children (girls and boys) and PLW in hard to access areas will be screened at community level by community outreach nutrition/health workers and will refer children having bilateral pitting Oedema and/or MUAC < 12.5 cm and PLW having MUAC < 21 cm to the nearest outpatient nutrition sites for further assessment and registration in appropriate feeding programs as per National CMAM protocols.
- Outreach activities will be carried out at field level. Geographical unit is Union Council and door to door screening through LHWs in LHWs covered areas and uncovered areas screening would be done through the NGO's partners' staff. Whereas Social Behavior Change Communication session will be done in community. Identified cases of acute malnutrition should be referred at the CMAM sites, established at the nearest health facility/ hospital etc.
- Continue and scale up the provision of life saving nutrition services to mother and children, such as screening and treatment of acute malnourished children 6 to 59 months (severe, moderate and severe with complications) treatment of malnourished PLW ensuring complete package of CMAM(OTP+TSFP and SC) services in all the affected districts with maximum scale in complementation with PC1 of Balochistan Nutrition Programme nutrition interventions to reduce the high burden of malnutrition and provision of IFA/multi-micronutrients to pregnant and lactating women, strengthen and

enhance communication around infant and young child feeding good practices and capacity development of key implementers /partners in order to timely save many precious lives of infant and young children so that they can thrive well.

- Considering the multifactorial causes of malnutrition there is a high need to plan/develop multisectoral programs in these affected areas, which can simultaneously address immediate, underlying and basic causes of malnutrition.
- An integrated programmatic approach (Nutrition, WASH, Health and Food Security) for child survival and thrive, is highly recommended to address the grave malnutrition issue in the subjected districts.
- More focus should be attained on community based nutrition services as accessibility to health facility is identified as a core issue.
- Malnutrition and associated silent hunger among pregnant and lactating women predispose mothers to maternal complications and even mortality. In circumstances like drought with high malnutrition rates among pregnant and lactating mothers, 4 in 10 pregnant women becomes anemic. Iron deficiency anemia in mothers is an important risk factor for hemorrhages, a leading cause of maternal mortality. Calcium deficiency in pregnancy causes pre-eclampsia, another cause of mortality. Globally, maternal infections before and during child birth are associated with around 10% of maternal mortality each year and malnutrition is one of the main factors.
- Women, who will be presenting with complications of pregnancy needs necessary care, for instance, timely Ante-natal checkups, management/referral of complications.
- It is an established fact that 4% of the total population will be pregnant at a given time, of whom 15% women expected to have life threatening complications, with 5% requiring C-Sections. Therefore, availability of emergency reproductive health services or minimum in initial service package (MISP) is mandatory.
- Establishment of vaccination camps in drought affected areas
- Utilize kitchen gardening as a nutrition sensitive agriculture intervention.

WASH:

- Despite the impression that access to water has not changed over 6 months, the service level is already marginal. Most of the respondents had indicated that they have less than 5 liters per capita per day, which is the bare minimum to maintain the domestic needs for drinking and cooking water demands.
- WASH results need to be triangulated with other sectors, in particular agriculture and livelihoods, to understand how the current inadequate water supply situation would further be affected by those competing needs and the impact on existing water schemes and vulnerability level in regards to water supply.
- Technically most of the water sources in Balochistan are extracting water from deep in the aquifer and the impact of reduced access to water will become more prominent over the extended drought period with a gradual drawdown of groundwater table. The proxy indicator should be the frequency of breakdown/non-functionality of water supply schemes and the time it takes to fetch water.
- Increase access to improved sources of water for the population of affected districts/tehsils through the repair/rehabilitation of non-functional water supply systems

and water points, including support for the establishment of operation and maintenance systems that are self-sustaining.

- Improved coordination with food security sector on improving access to water.
- Health and hygiene messages, including the importance of hand washing at critical times and the use of various household water treatment options, should be integrated into health and nutrition interventions in affected areas.
- Improve access to WASH facilities at health and nutrition outreach facilities and centers.
- Sanitation will be supported in areas of migration or displacement. This may include access to toilets, sludge management, improved drainage, vector control, etc. However, advocacy for investment in long-term development programmes aimed at eradicating open defecation is important.

Protection:

- Conduct follow up qualitative assessments to generate a deeper understanding of the factors affecting access of women and children to protection services and identify the most common forms protection concerns they face in drought affected areas.
- Collaborate with health and education sectors to incorporate psychosocial support activities for women and children in their interventions.
- Establish women and child spaces to provide safe platforms to report and respond to various protection concerns of affected population
- Mainstream child and women protection actions in WASH, Nutrition and Food Security sectors.

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Annex A: List of Surveyed Districts, Tehsils, Revenue Villages (Mozas) during the Balochistan Drought Needs Assessment (BDNA)

District	Tehsil	Union Council	Revenue Village (Moza)
AWARAN	AWARAN	AWARAN	CHEEDGI
AWARAN	AWARAN	AWARAN	LABACH
AWARAN	AWARAN	AWARAN	QAMBRO
AWARAN	AWARAN	MALAR	CHERI MALAR
AWARAN	AWARAN	MALAR	KANDOR
AWARAN	AWARAN	MALAR	SARI MALAR
AWARAN	AWARAN	MALAR	TEERTAJ
AWARAN	AWARAN	MARA SHAM	REKCHAI
AWARAN	AWARAN	PIRANDAR	PIRANDAR
AWARAN	AWARAN	PIRANDAR	ZOOMDAN
AWARAN	JHAL JHAO	CAMP JHAO	CAMP JHAO
AWARAN	JHAL JHAO	CAMP JHAO	LAL BAZAR
AWARAN	JHAL JHAO	GOKO	GOKO
AWARAN	JHAL JHAO	KORAK	KOOTO
AWARAN	JHAL JHAO	SHANDI	NANDARA
AWARAN	JHAL JHAO	SHANDI	SHANDI
AWARAN	JHAL JHAO	WAJAH BHAG	LANJAR
AWARAN	JHAL JHAO	WAJAH BHAG	MOSAL PIR
AWARAN	JHAL JHAO	WAJAH BHAG	PIRDAN
AWARAN	JHAL JHAO	WAJAH BHAG	SISTAGAN
AWARAN	MASHKAI	GAJJAR	SARAP
AWARAN	MASHKAI	NOKJO	GHORKAI
AWARAN	MASHKAI	PARWAR	BANSAR
AWARAN	MASHKAI	PARWAR	PARWAR
AWARAN	MASHKAI	PARWAR	RAHOOJO
CHAGHI	CHAGHI	CHAGHI	AMEEN ABAD
CHAGHI	CHAGHI	CHAGHI	PADAGL LASHLAR KHAN
CHAGHI	CHAGHI	ZIYARAT BALANOSH	DARAMIN
CHAGHI	CHAGHI	ZIYARAT BALANOSH	DOGANAN
CHAGHI	CHAGHI	ZIYARAT BALANOSH	IMAM KHAN
CHAGHI	CHAGHI	ZIYARAT BALANOSH	LIJI KAREZ
CHAGHI	CHAGHI	ZIYARAT BALANOSH	ZIYARAT BALANOSH
CHAGHI	DALBANDIN		
CHAGHI	DALBANDIN	AMURI	AMURI
CHAGHI	DALBANDIN	AMURI	GATH BAROTHO
CHAGHI	DALBANDIN	AMURI	JAWAR KAREZ
CHAGHI	DALBANDIN	AMURI	KALAG
CHAGHI	DALBANDIN	CHILGAZI	CHILGAZI
CHAGHI	DALBANDIN	CHILGAZI	MIR BORE
CHAGHI	DALBANDIN	DAJ E GOWANKO	DAJ E GOWANKO

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CHAGHI	DALBANDIN	PADAG	BAZGAZ
CHAGHI	DALBANDIN	PADAG	SIAH CHANG
CHAGHI	DALBANDIN	PAT GONEKO	PAT GONEKO
CHAGHI	DALBANDIN	SADDAR	ALANGI
CHAGHI	DALBANDIN	SADDAR	KARODAK
CHAGHI	DALBANDIN	SADDAR	LAGHAB
CHAGHI	DALBANDIN	SADDAR	SAID DARU
CHAGHI	NOKUNDI	JULLY	ESSA TAHIR
CHAGHI	NOKUNDI	JULLY	SINGJO
CHAGHI	NOKUNDI	NOKUNDI	KOH E SULTAN
CHAGHI	NOKUNDI	TAFTAN	KACHAO
CHAGHI	NOKUNDI	TAFTAN	TALAAB
DERA BUGTI	QADIR ABAD	BAIKER	GORAN THAL
DERA BUGTI	QADIR ABAD	BAIKER	JALAL MARI
DERA BUGTI	QADIR ABAD	BAIKER	LAIDA
DERA BUGTI	QADIR ABAD	BAIKER	PIR MUHAMMAD
DERA BUGTI	QADIR ABAD	BAIKER	THANG WANNI
DERA BUGTI	QADIR ABAD	PELLAWAGH	BORE GARANI
DERA BUGTI	QADIR ABAD	PELLAWAGH	DEGARO BORE
DERA BUGTI	QADIR ABAD	PELLAWAGH	GAZANI GAL
DERA BUGTI	QADIR ABAD	PELLAWAGH	KANDALY
DERA BUGTI	QADIR ABAD	PELLAWAGH	KANDH GARANI
DERA BUGTI	QADIR ABAD	PELLAWAGH	KUP THAL
DERA BUGTI	QADIR ABAD	PELLAWAGH	NIRAL JALWALA
DERA BUGTI	QADIR ABAD	PELLAWAGH	SARVAN DORE
GWADAR	GWADAR	CHEBKALMATI	CHEB REKANI
GWADAR	GWADAR	CHEBKALMATI	CHEBKALMATI
GWADAR	GWADAR	CHEBKALMATI	JOR KHAN
GWADAR	GWADAR	CHEBKALMATI	ZAYARAT MACHI
GWADAR	GWADAR	GWADAR	DHOR GHATTI
GWADAR	GWADAR	PALERI	NIGOR SHAREEF
GWADAR	GWADAR	PALERI	PALERI
GWADAR	GWADAR	PISHKAN	CHATIJANOBI
GWADAR	GWADAR	PISHKAN	PISHKAN
GWADAR	GWADAR	SURBANDAR	SHENKINDAR
GWADAR	GWADAR	SURBANDAR	SURBANDAR
GWADAR	JIWANI	GANZ	BANDARI
GWADAR	JIWANI	GANZ	PANWAN
GWADAR	ORMARA	BAL	SHAM
GWADAR	ORMARA	BASOOL	BASOOL
GWADAR	PASNI	BELAR	JADGAL
GWADAR	PASNI	KALATO	CHOR
GWADAR	PASNI	KALATO	KALATO
GWADAR	PASNI	KALATO	ZAHKAN

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GWADAR	PASNI	KALLAG	MAKOLA
GWADAR	PASNI	KALLAG	SAR DASHTH
GWADAR	PASNI	KAPPAR	KAPPAR
GWADAR	PASNI	NALIENT	CHAKULI
GWADAR	PASNI	NALIENT	NALIENT
JHAL MAGSI	GANDAWAH	GANDAWAH	GANDAWAH
JHAL MAGSI	GANDAWAH	KHARI	FATHEPUR
JHAL MAGSI	GANDAWAH	KHARI	KOTRA
JHAL MAGSI	GANDAWAH	KHARI	NOSHERA
JHAL MAGSI	GANDAWAH	KHARI	PIR CHATA
JHAL MAGSI	GANDAWAH	KHARI	RAHOJA GHARBI
JHAL MAGSI	GANDAWAH	MIR PUR	CHORI
JHAL MAGSI	GANDAWAH	MIR PUR	KARMANI
JHAL MAGSI	GANDAWAH	MIR PUR	SHIKARPUR
JHAL MAGSI	JHAL MAGSI	AKBER ABAD	ZULFQARABAD
JHAL MAGSI	JHAL MAGSI	BAREJA	DHORRI
JHAL MAGSI	JHAL MAGSI	BAREJA	KOREJA
JHAL MAGSI	JHAL MAGSI	BAREJA	MITHO
JHAL MAGSI	JHAL MAGSI	BAREJA	SHADIHAR
JHAL MAGSI	JHAL MAGSI	HATH YARI	HATHYARI
JHAL MAGSI	JHAL MAGSI	HATH YARI	SANJRANI
JHAL MAGSI	JHAL MAGSI	JHALL MAGSI	KHAN WAH
JHAL MAGSI	JHAL MAGSI	KOT MAGSI	ALLAH ABAD
JHAL MAGSI	JHAL MAGSI	KOT MAGSI	CHUKAI
JHAL MAGSI	JHAL MAGSI	MAT SINDHOR	MAT SINDHOR
JHAL MAGSI	JHAL MAGSI	PANJUK	KHAN PUR
JHAL MAGSI	JHAL MAGSI	PANJUK	PURANI
JHAL MAGSI	JHAL MAGSI	SAIF ABAD	BAT SADIQ
JHAL MAGSI	JHAL MAGSI	SAIF ABAD	SAIF ABAD
KACHHI	BHAGNARI	CHALGARI	CHALGARI
KACHHI	BHAGNARI	CHALGARI	HAMID BASTI
KACHHI	BHAGNARI	JALAL KHAN	REHANZAI
KACHHI	BHAGNARI	MOHRAM	KALRA
KACHHI	BHAGNARI	NOESHERA	BADA
KACHHI	BHAGNARI	NOESHERA	PAHOR
KACHHI	DHADAR	GHAZI	GHAZI
KACHHI	DHADAR	GOR	AERI
KACHHI	DHADAR	HAJI SHAHAR	HAJI SHAHAR
KACHHI	DHADAR	HAJI SHAHAR	HAJI SHEHAR
KACHHI	DHADAR	MASHKAF	KAMOI
KACHHI	DHADAR	MASHKAF	MASHKAF
KACHHI	DHADAR	MASHKAF	WAHOO
KACHHI	DHADAR	MITHRI	BEHRI
KACHHI	DHADAR	MITHRI	MITHRI

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KACHHI	MACH	ABE GUM	KIRTA
KACHHI	MACH	M.C. MACH	MACH
KACHHI	SANNI	CHAKAR MARI	CHAKAR MARI
KACHHI	SANNI	ESBANI	KOLOI
KACHHI	SANNI	KHATTAN	BAGHAI
KACHHI	SANNI	KHATTAN	KHATTAN
KACHHI	SANNI	KOT RAISANI	DARBI
KACHHI	SANNI	SANIN	TAIB
KACHHI	SANNI	SHORAN	SHORAN
KACHHI	SANNI	SHORAN	SIANCH
KECH	BULAIDA	BADAI	BADAI
KECH	BULAIDA	BIT BULEDA	KOSHK
KECH	BULAIDA	NAG	NAG
KECH	DASHT	DRACHKOO	BALNIGWORE
KECH	DASHT	KUDAN	KUDAN
KECH	DASHT	KUMBAIL	ZARIN BUG
KECH	DASHT	KUNCHITY	KUNTADAR
KECH	TUMP	BALICHA	BALICHA
KECH	TUMP	SORO	SORO
KECH	TUMP	TAGRAN	TAGRAN
KECH	TURBAT	GANNA	KALLAG
KECH	TURBAT	GOKDAN	KORJO E SAR
KECH	TURBAT	HOSHAB	HOSHAB
KECH	TURBAT	HOSHAB	HOSHAB
KECH	TURBAT	HOSHAB	TAJABAN
KECH	TURBAT	HOSHAB	TEJABAN
KECH	TURBAT	HOSHAB	TIJABAN
KECH	TURBAT	HOSHAB	TUJABAN
KECH	TURBAT	KHAIRABAD	KHAIRABAD
KECH	TURBAT	NODIZ	GODI
KECH	TURBAT	SAMI	KARKI
KECH	TURBAT	SHAHRAK	SHAHRAK
KECH	TURBAT	SOL BAND	BALOCH ABAD
KECH	TURBAT	SOL BAND	SOLBAND
KHARAN	KHARAN	NAROZ KATAL	NOROZ KALAT
KHARAN	KHARAN	SARAWAN	HULMARK
KHARAN	KHARAN	SARAWAN	MACHI
KHARAN	KHARAN	SARAWAN	SARAWAN
KHARAN	KHARAN	SARAWAN	ZAROZI
KHARAN	SAR KHARAN	JAMAK	JAMAK
KHARAN	SAR KHARAN	JODAI KALAT	JODAI KALAT
KHARAN	SAR KHARAN	JODAI KALAT	KANDARA
KHARAN	SAR KHARAN	JODAI KALAT	KUNARI
KHARAN	SAR KHARAN	JODAI KALAT	NAROO

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KHARAN	SAR KHARAN	MISKAN KALAT	GOWAZI SAR
KHARAN	SAR KHARAN	MISKAN KALAT	SHAHWANI
KHARAN	SAR KHARAN	PASKOH	CHARKOHAN
KHARAN	SAR KHARAN	PASKOH	NAGOT
KHARAN	SAR KHARAN	SARAWAN	KANIYAN
KHARAN	SAR KHARAN	TOMULK	BOPEY REK
KHARAN	SAR KHARAN	TOMULK	JONGO
KHARAN	SAR KHARAN	TOMULK	TOMULK
KILLA ABDULLAH	CHAMAN	DAMAN ASHAZAI	DAMAN ASHAZAI
KILLA ABDULLAH	CHAMAN	JILGA 1	TASHRUBAT
KILLA ABDULLAH	CHAMAN	JILGA 2	AZAMABAD
KILLA ABDULLAH	CHAMAN	JILGA 2	DOBANDI
KILLA ABDULLAH	CHAMAN	JILGA 2	MANZAKI 2
KILLA ABDULLAH	CHAMAN	JILGA 2	ZEMAL
KILLA ABDULLAH	CHAMAN	PURANA CHAMAN	PURANA CHAMAN
KILLA ABDULLAH	CHAMAN	ROGHANI	K.K.GURI
KILLA ABDULLAH	CHAMAN	ROGHANI	SANZALA
KILLA ABDULLAH	CHAMAN	SIRKI TALARI	SIRKI TALARI
KILLA ABDULLAH	GULISTAN	ABDUL REHMAN ZAI	ABDUL REHMAN ZAI
KILLA ABDULLAH	GULISTAN	BURI MATAKZAI	MATAKZAI
KILLA ABDULLAH	GULISTAN	DAMAN ASHAZAI	KK Daman Ashazai
KILLA ABDULLAH	GULISTAN	GULISTAN	KAREZ
KILLA ABDULLAH	GULISTAN	HABIB ZAI	HABIB ZAI
KILLA ABDULLAH	GULISTAN	KHORGAI	KHORGAI
KILLA ABDULLAH	GULISTAN	SEGAI	SEGAI
KILLA ABDULLAH	KILLA ABDULLAH	ARAMBI	MAIZAI
KILLA ABDULLAH	KILLA ABDULLAH	KILLA ABDULLAH	
KILLA ABDULLAH	KILLA ABDULLAH	ZARA BAND	ZARA BAND

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LORALAI	BORI	CHENA ALIZAI	BARNIMA
LORALAI	BORI	CHENA ALIZAI	DALOR
LORALAI	BORI	CHENA ALIZAI	SAGHRAI
LORALAI	BORI	CHENA ALIZAI	SHARAN ALAZAI
LORALAI	BORI	CHENA ALIZAI	WAHAR
LORALAI	BORI	KACH AMAZAI	CHINJAN
LORALAI	BORI	KACH AMAZAI	DAHANDA
LORALAI	BORI	KACH AMAZAI	KONOR ABAD
LORALAI	BORI	KACH AMAZAI	SAPAN TANGI
LORALAI	BORI	LOHOR	DILLI
LORALAI	BORI	LOHOR	MURTAT
LORALAI	BORI	NEGANGA	MAHOL
LORALAI	BORI	PATHANKOT	PATHANKOT
LORALAI	BORI	SHABAZAI	URD SHABOZAI
LORALAI	BORI	SHAH KAREZ	NEGANGA
LORALAI	BORI	ZENGIWAL	CHAPLI
LORALAI	BORI	ZENGIWAL	ZENGIWAL
LORALAI	BORI	ZHAR KAREEZ	MANARA
LORALAI	BORI	ZHAR KAREEZ	MUNARA KALAN
LORALAI	BORI	ZHAR KAREEZ	ZHAR KAREEZ
LORALAI	LORALAI	AGHBARG	KASHKAI
LORALAI	LORALAI	HINDA CIRCLE 2	HINDA
LORALAI	LORALAI	KHANA GULL ZARA NALI	NALI WALAZAI
LORALAI	LORALAI	KHANA GULL ZARA NALI	ZAHRAAH NALI
LORALAI	LORALAI	NALI AZAM	NALI AZAM
LORALAI	LORALAI	ZARA	BARAD
NUSHKI	NUSHKI	AHMED WAL	AHMED WAL
NUSHKI	NUSHKI	AHMED WAL	BATTO
NUSHKI	NUSHKI	AHMED WAL	GOMAZGI
NUSHKI	NUSHKI	AHMED WAL	HAROONI
NUSHKI	NUSHKI	AHMED WAL	NASIR ABAD
NUSHKI	NUSHKI	AHMED WAL	ZANGI ABAD
NUSHKI	NUSHKI	ANAM BOSTAN	ANAM BOSTAN
NUSHKI	NUSHKI	ANAM BOSTAN	BAIDI
NUSHKI	NUSHKI	ANAM BOSTAN	LANDI MEHMOOD
NUSHKI	NUSHKI	ANAM BOSTAN	SANDORI
NUSHKI	NUSHKI	ANAM BOSTAN	ZANG NAWAR
NUSHKI	NUSHKI	ANAM BOSTAN	ZANGI NAWAR
NUSHKI	NUSHKI	DAAK	BAND CHANDAN KHAN
NUSHKI	NUSHKI	DAAK	SHADAIN WAL
NUSHKI	NUSHKI	JAMALDINI	BADAL KAREEZ
NUSHKI	NUSHKI	JAMALDINI	JAMALDINI
NUSHKI	NUSHKI	KESHANGI	BULGHANI
NUSHKI	NUSHKI	KESHANGI	GALANGUR

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NUSHKI	NUSHKI	KESHANGI	GINDARI
NUSHKI	NUSHKI	KESHANGI	GORI
NUSHKI	NUSHKI	KESHANGI	KHESAR
NUSHKI	NUSHKI	KESHANGI	SINGBUR
NUSHKI	NUSHKI	MALL	KOCHAKI CHA
NUSHKI	NUSHKI	MALL	MAKKI
NUSHKI	NUSHKI	MALL	SAR MALL
NUSHKI	NUSHKI	MENGAL	MENGAL
PANJGUR	GOWARGO	GICHK	SALARI
PANJGUR	GOWARGO	GICHK	SARGOWAZ
PANJGUR	GOWARGO	GOWARGO	KATAGARI
PANJGUR	GOWARGO	GOWARGO	MASHDALOW
PANJGUR	GOWARGO	GOWARGO	SOTAKONAR
PANJGUR	GOWARGO	GOWARGO	TAAS-E- DAN
PANJGUR	PANJGUR	BONISTAN	BONISTAN
PANJGUR	PANJGUR	CHITKAN	CHITKAN
PANJGUR	PANJGUR	GRAM KHAN	GRAM KHAN
PANJGUR	PANJGUR	ISSAI	BAITAN
PANJGUR	PANJGUR	ISSAI	ISSAI
PANJGUR	PANJGUR	ISSAI	KAHN ZANGI
PANJGUR	PANJGUR	ISSAI	SHABU KAHN
PANJGUR	PANJGUR	KALLAG	GARAWAG
PANJGUR	PANJGUR	KALLAG	PANCHI
PANJGUR	PANJGUR	KALLAG	SIMSOORI
PANJGUR	PANJGUR	KALLAG	SORAP
PANJGUR	PANJGUR	KHUDABADAN EAST	BUG
PANJGUR	PANJGUR	KHUDABADAN EAST	HASSANI KALAT
PANJGUR	PANJGUR	KOHEBAN	KOHEBAN
PANJGUR	PANJGUR	KOHEBAN	PHALABAD
PANJGUR	PANJGUR	SARDO	SARI KARAN
PANJGUR	PANJGUR	TASP	AIRAP
PANJGUR	PANJGUR	WASHBOOD	SARDAR CHAH
PANJGUR	PANJGUR	WASHBOOD	WASHBOOD
PISHIN	BARSHORE	GHAZI	SAGI
PISHIN	BARSHORE	KAZIA VIALA	KAZIA VIALA
PISHIN	BARSHORE	QILLA VILLA	QALLA VILLA
PISHIN	BARSHORE	TUKAI	SHERGHALI
PISHIN	KAREZAT	BOSTAN	BOSTAN
PISHIN	KAREZAT	BOSTAN MANZAKAI	MANZAKAI
PISHIN	KAREZAT	DILSORA	CHORMIAN
PISHIN	KAREZAT	MULAZAI	MULAZAI
PISHIN	KAREZAT	MULAZAI	SAGRAM MALAZAI
PISHIN	KAREZAT	MULAZAI	SARGAN
PISHIN	KAREZAT	ZAR KAREEZ	ZAR KAREEZ

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PISHIN	PISHIN	BAZAR I CONA	BAZAR NAU
PISHIN	PISHIN	DUB KHANZAI	DUB KHANZAI
PISHIN	PISHIN	FAIZABAD	FAIZABAD
PISHIN	PISHIN	GANGAL ZAI	GANGALI ZAI
PISHIN	PISHIN	HAJIAN SHAKARZAI	AJAIBZAI
PISHIN	PISHIN	IBRAHIM ZAI	IBRAHIM ZAI
PISHIN	PISHIN	KAMAL ZAI	KAMAL ZAI
PISHIN	PISHIN	KARBALA	SARKHAB KARBALA
PISHIN	PISHIN	MALAZAI	BAND MALAZAI
PISHIN	PISHIN	MANZAKI	MANZAKI
PISHIN	PISHIN	PISHIN	PASHTA MANDHA
PISHIN	PISHIN	PISHIN/ PASTA MANDA	LAMARAN
PISHIN	PISHIN	QILA SAKANRKHAN	SEKHAL ZAI
PISHIN	PISHIN	SAMZAI	TANGA
PISHIN	PISHIN	SAR KHANZAI	SAR KHANZAI
PISHIN	PISHIN	SUR KHANZAI	MIAN KHANZAI
PISHIN	PISHIN	YARO NO 1	YARO KURAIZ
PISHIN	PISHIN	YERO NO 1	NASOZAI
PISHIN	SARANAN	AJRAM	AJRAM
WASHUK	BESIMA	BESIMA	GORGAJE
WASHUK	BESIMA	BESIMA	LACHOO
WASHUK	BESIMA	BESIMA	SAJID
WASHUK	BESIMA	BESIMA	SHERNZA
WASHUK	BESIMA	BESIMA	ZAYAK
WASHUK	BESIMA	KURAGI	DAMAG
WASHUK	BESIMA	NAAG	CHADD
WASHUK	BESIMA	NAAG	KAPAR
WASHUK	BESIMA	NAAG	KIRECHI
WASHUK	BESIMA	NAAG	LOPE
WASHUK	MASHKHEL	KADGASHT	JOZZIZAT
WASHUK	MASHKHEL	SOTHGAN	AHOGOO
WASHUK	MASHKHEL	SOTHGAN	KAMAN ROAD
WASHUK	MASHKHEL	SOTHGAN	NOK CHAH
WASHUK	MASHKHEL	SOTHGAN	SAQI CHAH
WASHUK	MASHKHEL	ZAWAK	MASAHRIQI ZAWAK
WASHUK	WASHUK	GARANG	HUDDO
WASHUK	WASHUK	JANGIAN	CHAH ZARNAZ
WASHUK	WASHUK	JANGIAN	KOHANACHA
WASHUK	WASHUK	PALANTUK	KAMBER
WASHUK	WASHUK	SHAHOGDI	NAZAR
WASHUK	WASHUK	WASHUK	GRESHA 1

The Natural Disasters Consortium (NDC) comprised of IOM, FAO, UNICEF, HANDS and ACTED conducted the Balochistan Drought Needs Assessment (BDNA) in 14 drought affected districts of Balochistan in coordination with the Provincial Disaster Management Authority (PDMA-Balochistan). WFP, WHO, OCHA, and UNFPA also provided technical support to complete this assessment. Financial support for this assessment was provided by the Department for International Development (DFID).

The assessment used a household questionnaire and data was collected from 4,918 households located in 328 Revenue Villages (Dehs), of 177 Union Councils, 39 sub-districts (Talukas/Tehsils) of 14 drought affected districts in Balochistan (Pishin, Killa Abdullah, Chaghi, Kacchi, Loralai, Washuk, Panjgur, Kech, Gwadar, Dera Bugti, Awaran, Nushki, Jhal Mahsi, and Kharan).

The assessment provides detailed analysis of the current situation in the agriculture sector (crops and livestock production and losses), local livelihoods, food security status, health and nutrition status, access to water and sanitation, and migration patterns in the drought affected districts.

The findings of the BDNA will allow stakeholders including the Government of Pakistan, the Government of Balochistan, NDC partners, other national and international humanitarian and development actors, to make informed decisions in relation to short, medium, and long-term interventions/programs to address immediate needs and increase future resilience to drought in Balochistan.

SUSTAINABLE DEVELOPMENT GOALS

