

### CURRENT PERIOD (15 OCTOBER 2018 – 15 JULY 2019)

### PROJECTED PERIOD (16 JULY – 15 OCTOBER 2019)

# 1.28 Million

(57% of the rural population in drought-affected areas in 7 districts)

People facing severe acute food insecurity (IPC Phase 3+)  
**IN NEED OF URGENT ACTION**

Phase 5	0 People in Catastrophe
Phase 4	593,240 People in Emergency
Phase 3	686,298 People in Crisis
Phase 2	491,545 People in Stress
Phase 1	458,341 People minimally food insecure

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Phase 4	527,660 People in Emergency
Phase 3	726,691 People in Crisis
Phase 2	564,775 People in Stress
Phase 1	410,298 People minimally food insecure



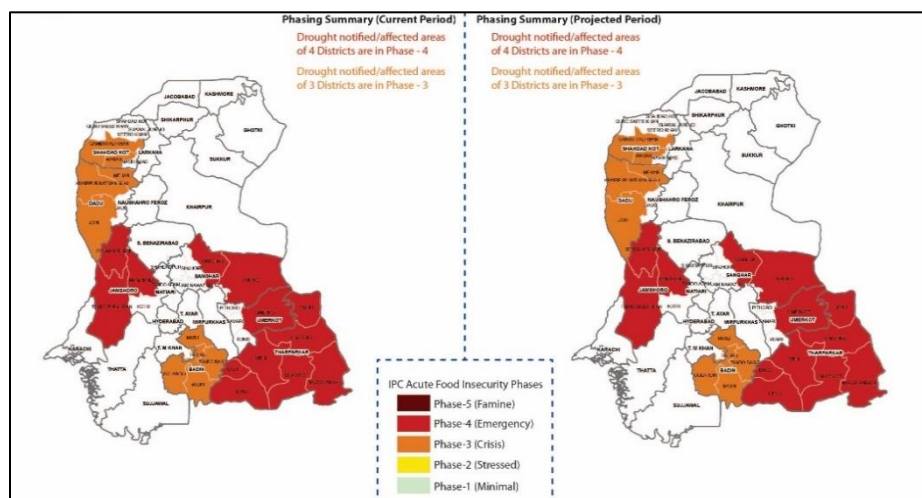
**How Severe, How Many and When:** Around 1.28 million people (57% of the rural population) in drought-affected areas of 7 districts (Tharparkar, Umerkot, Sanghar, Jamshoro, Badin, Dadu and Qambar Shahdadkot) are currently estimated to be in Crisis and Emergency (IPC Phase 3 and Phase 4). More than half a million people are classified in IPC Phase 4 (Emergency) across the drought-affected areas in these 7 districts and require urgent action to save lives and livelihoods, whereas around 0.69 million people are in IPC Phase 3 (Crisis) and urgent action is required to protect their livelihoods and reduce food consumption gaps or deficits. The analysis for the projection period (July to October 2019) indicates that the total population in Phase 3 and Phase 4 is expected to reduce slightly to 1.25 million (56% of the rural population) from 1.28 million (57% of rural population). Drought-affected areas of 4 districts (Tharparkar, Umerkot, Sanghar and Jamshoro) currently in Phase 4 (Emergency) will remain in the same emergency phase. Drought-affected areas in the remaining 3 districts (Badin, Dadu and Qambar Shahdadkot) are expected to remain in Phase 3 (Crisis), although 15-18% of the rural population of drought-affected areas in these districts is estimated to be in Phase 4.



**Where and Who:** 4 out of the 7 drought-affected districts analysed (Tharparkar, Umerkot, Sanghar and Jamshoro) have been classified in IPC Phase 4 (Emergency), whereas drought-affected areas in 3 districts (Badin, Dadu and Qambar Shahdadkot) are classified in IPC Phase 3 (Crisis). The current dry spell adversely affected farmers: due to limited availability of irrigation water, subsistence level farmers could not cultivate land optimally and produce adequate cereals and pulses for their own consumption.



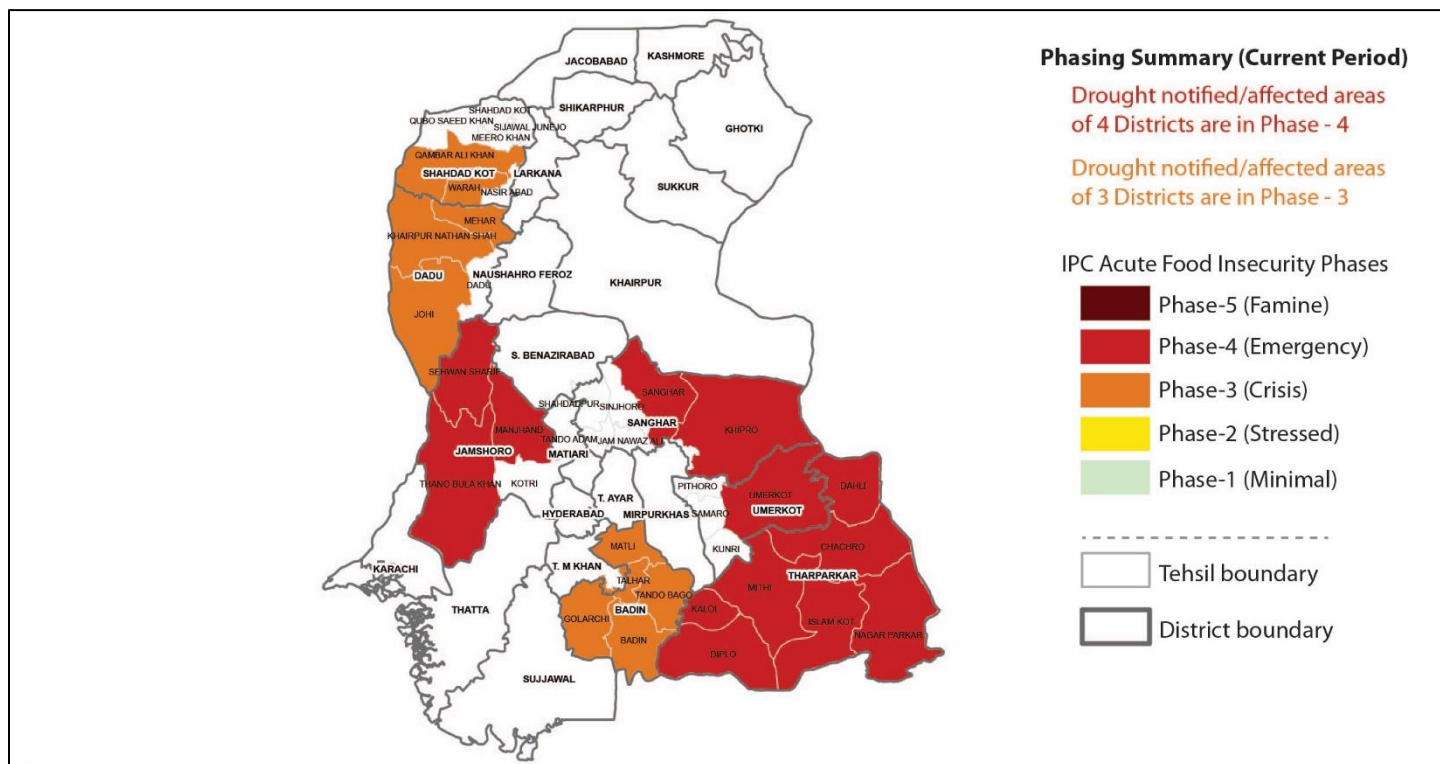
**Why:** The population in these districts/areas has been experiencing drought (mild to severe) for the past few years and drought conditions were aggravated August-December 2018. The current episode of drought has adversely affected the livelihoods, mainly agriculture based, of the rural population in these districts/areas. The drought adversely affected food/cereals production and livestock – the core assets of the communities in these districts/areas – and subsequently affected livelihoods and the food security situation.



The results of the IPC analysis for current and projection period only reflect the situation of the population in the drought-affected areas (Revenue Villages/Dehs) of Tharparkar, Umerkot, Sanghar, Jamshoro, Badin, Dadu and Qambar Shahdadkot districts of Sindh. These Revenue Villages/Dehs were notified as calamity-affected by the Government of Sindh. The population estimate used in this IPC analysis is of the rural population estimated to be living in the drought-affected areas (Revenue Villages/Dehs) of the 7 districts.

The Phase classification of an area is based on the 20% rule of the IPC i.e. an area has at least 20% of the population in the worst phase (Phase 4 or 3).

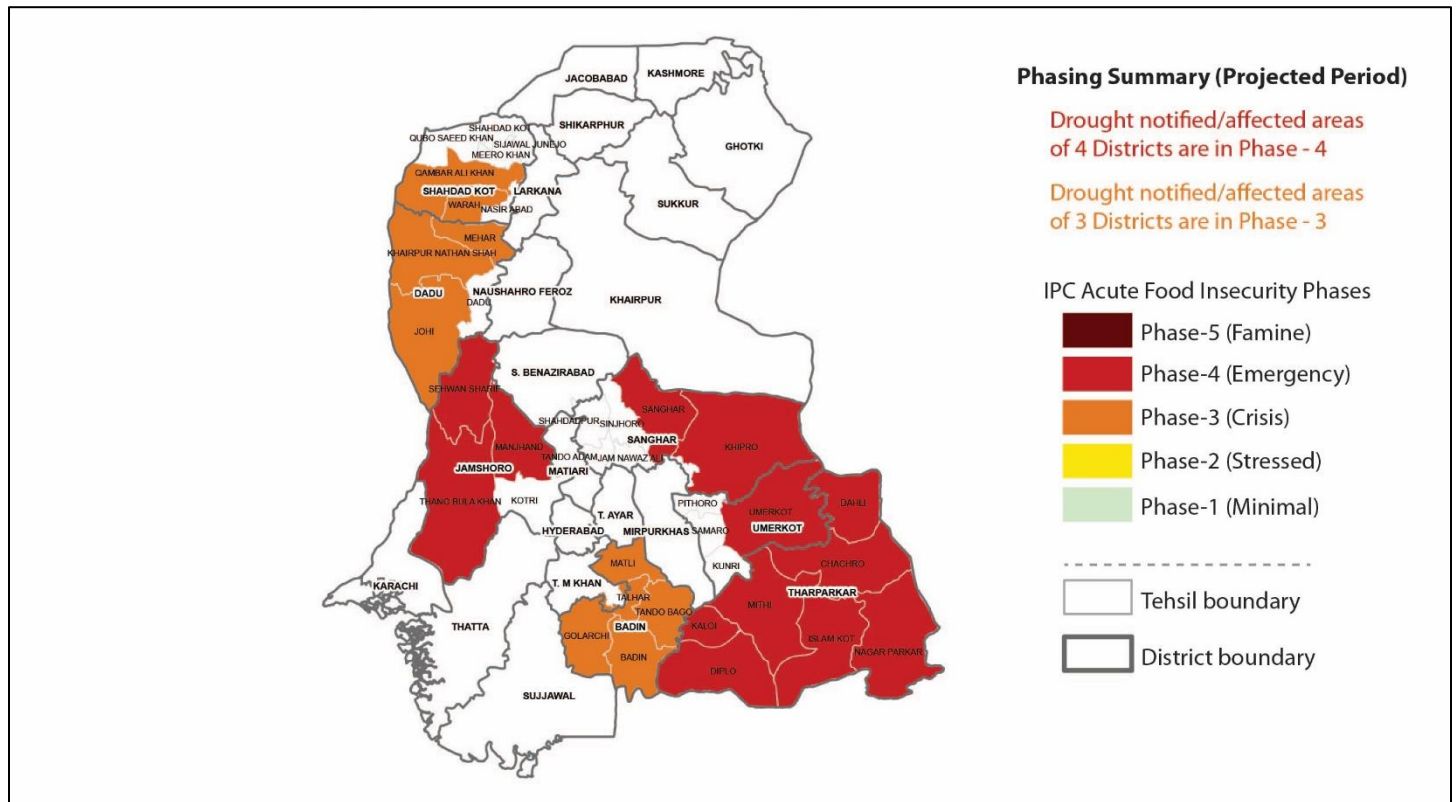
### CURRENT IPC ACUTE FOOD INSECURITY SITUATION FOR OCTOBER 2018 – July 2019



Phase Classification of Rural Population based on IPC Acute Food Insecurity Analysis for the Current Period (October 2018 – July 2019)

District	Total # (pp)	Phase 1		Phase 2		Phase 3		Phase 4		Level 3 or higher		Area Phase
		#	%	#	%	#	%	#	%	#	%	
Badin	163,955	32,791	20	49,187	30	57,384	35	24,593	15	81,978	50	3
Dadu	124,562	37,369	30	43,597	35	31,141	25	12,456	10	43,597	35	3
Jamshoro	163,559	32,712	20	40,890	25	57,246	35	32,712	20	89,957	55	4
Qambar Shahdadkot	48,048	9,610	20	12,012	25	19,219	40	7,207	15	26,426	55	3
Sanghar	50,375	10,075	20	10,075	20	17,631	35	12,594	25	30,225	60	4
Tharparkar	1,518,836	303,767	20	303,767	20	455,651	30	455,651	30	911,302	60	4
Umerkot	160,089	32,018	20	32,018	20	48,027	30	48,027	30	96,054	60	4
<b>Grand Total</b>	<b>2,229,424</b>	<b>458,341</b>	<b>20</b>	<b>491,546</b>	<b>22</b>	<b>686,299</b>	<b>31</b>	<b>593,240</b>	<b>27</b>	<b>1,279,539</b>	<b>58</b>	

### PROJECTED IPC ACUTE FOOD INSECURITY SITUATION FOR JULY – OCTOBER 2019



Phase Classification of Rural Population based on IPC Acute Food Insecurity Analysis for the Projected Period (July –October 2019)

District	Total # (pp)	Phase 1		Phase 2		Phase 3		Phase 4		Level 3 or higher		Area Phase
		#	%	#	%	#	%	#	%	#	%	
Badin	163,955	24,593	15	40,989	25	73,780	45	24,593	15	98,373	60	3
Dadu	124,562	18,684	15	43,597	35	43,597	35	18,684	15	62,281	50	3
Jamshoro	163,559	16,356	10	40,890	25	65,424	40	40,890	25	106,314	65	4
Qambar Shahdadkot	48,048	4,805	10	12,012	25	22,583	47	8,649	18	31,231	65	3
Sanghar	50,375	10,075	20	7,556	15	17,631	35	15,113	30	32,744	65	4
Tharparkar	1,518,836	303,767	20	379,709	25	455,651	30	379,709	25	835,360	55	4
Umerkot	160,089	32,018	20	40,022	25	48,027	30	40,022	25	88,049	55	4
<b>Total</b>	<b>2,229,424</b>	<b>410,298</b>	<b>18</b>	<b>564,775</b>	<b>25</b>	<b>726,691</b>	<b>33</b>	<b>527,660</b>	<b>24</b>	<b>1,254,351</b>	<b>57</b>	

## ACUTE FOOD INSECURITY SITUATION OVERVIEW, KEY DRIVERS AND LIMITING FACTORS

### Current Situation Overview

The province of Sindh is prone to multiple hazards: floods and drought. Drought or drought-like conditions have been prevailing in parts of Sindh since 2013, particularly in the southeastern and western districts: Tharparkar, Umerkot, and Sanghar (along the eastern border with India) and Jamshoro, Dadu, Qamber Shahdadkot (along the Western border of the province). The areas impacted by drought are heavily reliant on monsoon rainfall and with repeated years of low or in some cases complete absence of rainfall, the drought conditions have significantly deteriorated. The drought condition aggravated (moderate to severe) particularly between August and December 2018.

Considering the lack of/very limited rainfall during the last monsoon season (July-September 2018) and reports of the drought situation being aggravated further by the local district administration, the Government of Sindh notified 513 Revenue Villages (Dehs) as calamity/drought-affected in 8 districts of the province of Sindh, namely: Tharparkar, Umerkot, Sanghar, Thatta, Badin, Jamshoro, Dadu and Kamber Shahdadkot in September 2018.

The Natural Disaster Consortium (NDC), in coordination with the Provincial Disaster Management Authority (PDMA) Sindh conducted Sindh Drought Needs Assessment (SDNA) in the drought-affected areas of 8 districts in October 2018. This IPC analysis is focused only on drought-notified Revenue Villages (Dehs) of 7 districts. Apart from Badin, almost all drought-notified areas are located in the desert/arid areas, and besides non-agriculture also rely on agriculture (livestock-based) livelihoods. The overwhelming impacts of the prolonged drought-like conditions have resulted in this IPC analysis. These districts also have a high incidence of poverty ranging between 51% (in Dadu) to 87% (in Tharparkar). The poverty incidence is for the entire district.

The planting season for summer crops starts in May/June and ends in August/September, whereas the planting season for winter crops starts in November and ends in April (wherever crop cultivation is possible such as Badin, Dadu and Jamshoro). However, in the desert/arid areas, agriculture is primarily rain-fed and therefore heavily dependent on the monsoon rainfall. Due to limited availability of water and low land ownership, most of the farmers are engaged in small-scale subsistence-level crop production. The findings of SDNA show that whereas on average, the surveyed households in the drought-affected areas own 3.1 acres of land, they cultivate on average only 2.8 acres. Of the surveyed households, 42% own cultivable agricultural land, whereas 53% cultivate land.

The main cereal and fodder crops grown in the summer/monsoon season include **millet** (Bajra), Cluster bean (Guar), **sorghum** (except in Tharparkar), **maize** (except in Qambar Shahdadkot and Tharparkar), and **rice** (mainly in Badin, and Qambar Shahdadkot districts), whereas pulses (moong and moth beans) and some vegetables are also grown, mostly for own consumption.

The current dry spell adversely affected farmers. Due to limited availability of irrigation water, the subsistence-level farmers could not cultivate land optimally and produce adequate cereals and pulses for their own consumption. Compared with the 2016-17 agricultural seasons, in 2017-18, the area (measured in acres) for wheat decreased by 17% (100% in Tharparkar and Umerkot and 78% in Badin), rice by 70% (63% in Badin and 80% in Qambar Shaddakot), cluster beans by 30% (100% in Badin, 48% in Tharparkar and 43% in Jamshoro), millet by 38% (48% in Tharparkar), and pulses by 45% (100% in Dadu and 57% in Tharparkar). Compared with the 2016-17 agricultural season, overall crop production reported by households in the SDNA (measured in mounds) for wheat decreased by 23% (36% in Jamshoro and 33% in Badin), sorghum by 33%, rice by 35% (43% in Qambar Shahdadkot and 29% in Badin), cluster beans and millet each by 83%, and pulses by 95%. The production of cluster beans reduced by 92% in Tharparkar, 73% in Jamshoro and 69% in Umerkot. Millet production reduced by 84% in Tharparkar and 80% in Umerkot; whereas pulses production reduced by 95% and 94% in Tharparkar and Umerkot respectively.

The analysis of data of Crop Reporting Services (Agriculture Department of the Government of Sindh) shows that regarding crop area and production of major cereal crops, an overall reduction across the districts was registered, and not just in the drought-notified areas. The crop area and production of wheat has reduced by 24% each since 2014-15 in the 7 districts. However, crop area and production in 2018-19 is estimated to be 17% (at 294,159 hectares) and 10% (at 960,701 metric tons) less than in 2017-18. Furthermore, cultivated area of rice, the second most consumed staple cereal crop, reduced by 18% since 2014-15 and 26% since 2017-18, whereas its production reduced by 13% since 2014-15 and 19% since 2017-18. Another major cereal crop in the drought-affected areas is millet (Bajra) which also registered a reduction in area cultivation and production across 7 districts. Crop area for millet reduced by 36% and 39% respectively since 2015 and 2017, whereas production reduced by 20% and 39% for the same periods.

For farmers engaged in crop production, own production of cereals and pulses was not sufficient for their household needs and on average, stocks from own production of cereals were adequate for only 2.8 months (2.3 months in Tharparkar) and 1.6 months for



pulses. This places further stress on vulnerable households, making them dependent on markets for their food needs. Although food is adequately available in markets, the purchasing power of poor and vulnerable households is considerably low.

An analysis of food prices, published by the Pakistan Bureau of Statistics, shows that prices of 8 major food items (wheat, wheat flour, two varieties of rice (Irri and Basmati), 1 lentil (Masoor) and 3 pulses (Moong, Maash and Gram)) have increased since July 2018, whereas prices varied since January 2019.

The recent drought has also adversely impacted the core assets of the households – livestock. Cattle, goats, sheep and camels are commonly owned livestock in the analyzed areas. The low production of fodder and limited availability of water due to drought conditions contributed to livestock diseases, deaths and distress sale. The livestock holders have been under stress due to prolonged dry conditions. The recent aggravated drought conditions have caused an additional burden on the already vulnerable communities. Around one-fourth of surveyed households that keep cattle reported death of at least one cattle during the past six months, 54% reported deaths of goats, 45% reported deaths of sheep, 21% reported deaths of buffaloes, 20% reported deaths of camels, 18% reported deaths of donkeys, and 57% reported deaths of poultry. The deaths of cattle and goats were reported highest in Sanghar (by 55% and 85% households respectively), sheep in Qambar Shahdadkot and Jamshoro (by 67% households each) and poultry by 90% of households in Jamshoro. The main reasons reported for deaths of livestock are lack of fodder, livestock diseases and lack of water.

Moreover, households are also engaged in distress selling of their livestock. The livestock that are in poor condition, due to the above-stated aggravating factors, are being sold at low prices in order to preserve some of the value of the livestock prior to their premature death. Overall, 40% of the households that keep livestock sold one or more cattle during the past six months, 31% sold one or more buffaloes, 65% sold goats, 55% sold sheep, 13% sold camels, 7% sold donkeys and 29% sold poultry. The sale of cattle, goats, and poultry was highest in Jamshoro and of sheep was highest in Dadu district.

The households in the drought-affected areas have limited monthly income – PKR 9,401 (highest PKR 12,983 in Jamshoro and lowest PKR 7,182 in Qambar Shahdadkot). The monthly income reduced by 11% compared to six months ago, from PKR 10,581 to PKR 9,401. The major portion of household income is dedicated to food purchases, limiting expenditure on other non-food essentials such as healthcare, education, and housing. Overall, 36% of the households spent a very high share (more than 75% of the total household expenditure) on acquiring food; while 31% spent a high share (65-75% of the total expenditure) on acquiring food.

The limited purchasing power, low levels of cereals and pulses production and livestock losses translated into poor food consumption. As per Food Consumption Score (FCS), the majority of the surveyed households (82%) have either ‘poor’ or ‘borderline’ food consumption (41% each), whereas only 18% have ‘acceptable’ food consumption. The proportion of households with poor food consumption is highest (64%) in Badin followed by 61% in Umerkot and 50% in Qambar Shahdadkot, whereas those with borderline food consumption are highest (55%) in Tharparkar, followed by 53% in Sanghar and 45% in Qambar Shahdadkot. The households with borderline food consumption may move to poor food consumption if access to food deteriorates.

The Household Dietary Diversity Score (HDDS) based on one-day (24 hours) recall and 12 food groups revealed, that 56% of the surveyed households have a High (lowest 22% in Umerkot), 38% have a Medium (lowest 15% in Jamshoro and Dadu), whereas only 6% households have a Low (highest 12% in Umerkot) dietary diversity score. When analysed further, it appears that consumption of oil/fats, sugar/honey and miscellaneous (condiments etc) is mainly contributing to a High dietary diversity, as 65-95% of the households reported its consumption during the 24 hours preceding the survey. The consumption of dairy, pulses and proteins is still very low.

The Household Hunger Scale (HHS) is an important indicator to assess the experience of hunger and food insecurity. Based on the HHS, around half (47%) of households in the drought-affected areas experienced moderate hunger (63% in Dadu), 17% experienced slight hunger (41% in Badin and 39% in Qambar Shahdadkot), 3% experienced severe/very severe hunger (8% in Dadu), whereas around

- FCS Consumption Score (FCS) is a proxy indicator 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 was 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 food group was consumed and its relative weight. 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).
- The thresholds used for computing HDDS are Low (0-2 food groups eaten), Medium (3-4 food groups eaten) and High (>=5 food groups eaten).
- The Household Hunger Scale (HHS) is a scale developed by Food and Nutrition Technical Assistance (FANTA) based on perceptions of food insecurity at household levels. It assesses whether households have experienced problems in food access during the preceding 30 days based on three questions and measures the severity of food insecurity in the past 30 days, as reported by the households. As per methodology of HHS for IPC, five categories were computed: no hunger (HHS=0), slight hunger (HHS=1), moderate hunger (HHS=2-3), severe hunger (HHS=4) and very severe hunger (HHS= 5-6).
- The livelihood-related coping strategies are analysed in three sub-categories, i.e. stress strategies (such as borrowing money, purchase food on credit, or spending 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).

one-third (33%) of households (47% each in Sanghar, Tharparkar and Umerkot) did not experience hunger during the month preceding the survey.

Furthermore, around one-fourth (23%) of the households in drought-affected areas adopted “high” level food-based coping strategies (46% in Sanghar) and 57% adopted “medium” level food-based coping strategies (77% in Qambar Shahdaskot and 70% in Umerkot). Adopting high level food-based coping strategies indicates that food gaps exist in the area and vulnerable households are adopting short-term food-based coping strategies to meet their food needs.

During this time-period, households were also engaged in livelihood-based Coping Strategies to meet their food needs. Overall, 83% of the surveyed households used at least one livelihood-based coping strategy to meet their food needs (99% in Jamshoro). Around 17% of the households adopted ‘stress strategies’ (35% in Dadu), 18% adopted ‘crisis strategies’ (35% in Badin) and another 50% adopted ‘emergency’ irreversible strategies (84% in Jamshoro and 62% in Tharparkar).

Remoteness is a major issue for households in these areas, with most needing to travel considerable distances to access markets. Around 55% of households travel more than 10km to access the nearest market, and in Tharparkar and Sanghar, 54% and 46% of households respectively had to travel more than 20km to access a market. The most common problems faced by communities in accessing markets are high cost of transportation, less availability of transport, long distance and poor road infrastructure. The findings of SDNA also revealed that 73% of the household contracted new debts during the six months preceding the survey, mainly to cover food and health needs, general household expenses and to repay earlier debts. Overall, on average, PKR 35,386 is the outstanding debt against each household, which is almost four times of their monthly income. It implies that with the current vulnerable situation and limited household income, households in drought-affected areas will remain in debt traps for some time, as their monthly income is not sufficient to pull them out of the debt trap.

Overall, 48% of the households experienced a shock during the past 6 months, which includes the drought/dry spell, which was experienced by 41% of the households, followed by severe sickness/death of the breadwinner, experienced by 28% of households, and livestock disease outbreaks, experienced by 20% of the households. The percentage of other minor shocks remained low at 11% collectively. Migration of household members or the entire family along with their livestock is a common strategy in the drought-affected areas when drought conditions become severe. Overall, 15% of the surveyed households reported migration of their members at some point during the 6 months preceding the survey; 10% (or two-thirds of the surveyed households) performed routine seasonal migration whereas 5% (one-third of the surveyed households) migrated due to the prevailing drought.

Poor food consumption coupled with limited access to improved drinking water sources and poor sanitation facilities have also contributed to poor health status. Around three-fourths (72%) of the population have access to improved water sources, with 28% forced to rely on unimproved sources of drinking water. Lack of drinking water for livestock has also been reported as a critical issue. More than four-fifths of the surveyed population has no access to a household toilet and practice open defecation. This is reflected by very high morbidity among pregnant lactating women (almost all PLW) and children (82% of boys and 85% of girls under the age of 5). Access to healthcare is a critical issue in the drought-affected areas. Households face challenges such as long distances to healthcare providers, high cost of services, poor road infrastructure, and limited availability of health staff and medicines at the healthcare facilities etc. On average, households travel 19.8km to access healthcare.

Another major outcome of the vulnerability factors is very high rates of acute malnutrition among children and PLWs. The preliminary results from the National Nutrition Survey (NNS) conducted in these districts between July-October 2018 reveal a ‘Critical’ level of acute malnutrition, as the GAM rate (by weight for height) is above 15% in all 7 districts except in Dadu, where it can be classified as ‘Serious’. The Wasting GAM rate is highest in Umerkot at 29% (24% based on SMART survey conducted by WFP in November 2018), followed by Badin at 27%, Qambar Shahdaskot and Tharparkar at 23% (27.8% based on preliminary findings of Nutrition Assessment conducted by WHH in April 2019), Jamshoro at 18%, Sanghar at 17%, and Dadu at 14%. The preliminary findings of NNS are for the entire district, not drought-affected areas. The actual prevalence of wasting might be higher in the drought-affected areas.

Regarding the housing status of households, most of the households (40%) live in non-cemented (Katcha) houses followed by “Chhora/straw made” (34%), and “Semi Pakka (semi-cemented)” (12%). The poor economic status of households is also reflected by the fact that over half of the households (54%) have one room in their house (54%), followed by two rooms (31%) and three rooms (10%). High incidence of poverty, poor food consumption, low-medium dietary diversity, experience of moderate hunger, high dependency on food- and livelihood-based coping strategies pose serious concerns to the aggravating situation of food insecurity and malnutrition. The vulnerable households with limited assets and income sources, reduced cereals production and livestock ownership, trapped in a vicious circle of debt, are at higher risk of food insecurity and need urgent support to get out of this situation.

The Federal and Provincial Governments and international organizations have undertaken efforts to support the vulnerable households. The Relief Department of Government of Sindh has distributed over 900,000 bags of wheat of 50kg among vulnerable households in drought-affected areas of 8 districts, the majority of them living in Tharparkar. Furthermore, it has also started food

distribution in Tharparkar district, which will be extended to other districts. The Government of Sindh has also started a livestock vaccination campaign in Tharparkar.

FAO, with funding from Central Emergency Response Fund (CERF), Multi Year Humanitarian Program (MYHP) and FAO's Technical Cooperation Program (TCP), has initiated drought-response projects in drought-affected areas of Tharparkar, Umerkot and Sanghar districts. The households will be provided with drought-resistant varieties of seeds of cereal and fodder crops, vegetable kits, animal compound feed and vaccination against PPR and FMD, and trainings on crops, livestock, water management, kitchen gardening, dietary diversity and food processing. Other UN organizations (World Food Program, UNICEF and WFP) are also implementing drought response in the focus areas through CERF and other funding sources. In addition, local and international non-governmental organizations (ACTED, Concern Worldwide, WHH, AWARE, SWAFCO, TRDP, SIF, Maltesar International etc) are also implementing interventions in their focus areas (Tharparakr/Umerkot/Sanghar districts). Response activities will also be extended to other districts with availability of funding.

### Projected Situation Overview

The drought-affected areas have received very little or no rainfall during the past two monsoon seasons. The availability of irrigation/canal water was also lower last year compared to previous seasons. The forthcoming monsoon season is expected to start in July 2019, whereas the summer planting season in most of these areas will start in June 2019. The subsistence farmers prepare land and also sow seeds in late June/early July with the expectation that monsoon rainfall will be timely and adequate for planting of cereal and fodder crops. During this time, pastoralists who had migrated with their livestock for grazing opportunities are expected to return.

However, due to climate change, rainfall variability has become higher. In case timely and adequate rainfall occurs, it would be beneficial for cultivation and production of cereal and fodder crops and for the livelihoods of the subsistence-level agro-pastoralists communities in the desert/arid areas of the 7 districts. With recorded rainfall, the availability of irrigation/canal water for irrigated areas is also expected to be better for the summer 2019 season compared to last year. However, the rainfall may not reverse the impact of prolonged dry conditions. For this, several spells of rain are required. Therefore, the positive impacts of the monsoon rainfall are expected to be minimal in the projection period.

Those households who have already lost a significant portion of their assets and livestock and have adopted irreversible emergency coping strategies are unlikely to see any immediate alleviation in their vulnerability status in the projection period.

On the other hand, if adequate and timely rainfall does not occur, it would put further stress on the vulnerable households and their core assets – livestock. The summer planting season will be missed, and farming households would have to wait until the next summer season in 2020. The drought-induced impacts, such as distress selling of livestock, livestock diseases, skipping meals, and migration, are expected to become more common. The households would need food and fodder assistance and livestock vaccination support. The gap would also have an adverse impact on soil quality and productivity, pastures and eventually cereals and livestock production.

A lack of/limited crop and livestock production means that most of these households will become dependent on markets to meet their food needs. As households in drought-affected areas have limited income and are engaged in subsistence-level farming, a reduction in crop and livestock production means a reduction in income, hence, their purchasing power will decline as well. In case of crop failure, most households would also not be able to rely on their stocks from the previous season as on average, households only have cereal stocks for 2.6 months and they would have been depleted already.

The poor macroeconomic situation would further aggravate the stress on households, with inflation touching double digits, continuously depreciating the exchange rate and increasing fuel and electricity prices. These factors will increase cost of production and likely impact adversely food prices, which have already seen a rise since July 2018.

Considering the above conditions, it is expected that there will be minimal positive impacts from the monsoon rains and the proportion of affected households are likely to increase, however, there would not be a major change in phase classification of the drought-affected areas during the projection period (July-September 2019 compared to the current period, except slightly less people will be in 4 compared to the current period.

Heavy rainfall may cause riverine flooding in mighty Indus River or flash flooding in the mountainous region, and would be a threat for Dadu, Jamshoro, Badin, and Qambar Shahdadkot districts. This would adversely impact rice, cotton and sugarcane crops in these districts. The situation will need to be monitored closely and where possible, water retention structures and flood protection walls need to be built.

## RECOMMENDATIONS FOR ACTION

### Response Priorities

- In response to the emergency and crisis situations prevailing in the analyzed districts, some immediate emergency response mechanisms need to be in place to save lives and livelihoods.
- Considering that livestock holdings are severely affected as a result of the drought, efforts need to be made to mitigate some of the worst impacts and to prevent further deterioration.
- In the immediate term, livestock protection and management interventions should be supplied, including; fodder, feed, fodder seed, water and animal health camps, by engaging the services of all technical agencies and the concerned line departments.
- Livestock vaccination campaigns such as for PPR and FMD may also be activated to protect them from prevailing diseases.
- Temporary mandies (markets) for feed, fodder and animals for de-stocking/ relocation of livestock should be set up, in case of market disruption and animal mortality due to prolonged emergency.
- Shelters should be provided to needy and vulnerable livestock/poultry handlers.
- Drought-resistant fodder production and seeding of rangelands to produce quality fodder may be employed.
- The dry conditions in these vulnerable areas are likely to persist given the impacts of climate change and focus should therefore be on building resistance and promoting adaptation to these conditions. This includes distribution of seeds for drought-resistant and high-yielding crops, such as sorghum (Jowar), maize, mung, mash legumes and vegetable seeds.
- There is also a need for repair and rehabilitation of water resources for agriculture and livestock such as tube-wells, *karez*, water courses, and wells.
- Activation of cash transfers and food distribution for the most vulnerable households may be employed.
- Continue provision of food ration where it has already started.
- Conditional Cash grants may be utilized for restoration of asset base.
- Training on kitchen gardening (including demonstration of kitchen gardening on brackish water especially in arid/desert area), diet diversity, food processing and food safety.
- Livelihood diversification activities may be employed to diminish the adverse impacts of drought. Income-generation and employment-creation interventions need to be adopted. Revival of small-scale cottage industry (pottery, vocational trainings centers, display/crafts centers, solar and renewable energy, small trades (retail/wholesale), skill development trainings in different trades. Entrepreneurship promotion and development (capacity building and inputs provision in electrician, automobile and mobile repair, etc.)
- The extremely high levels of acute malnutrition indicate a need for urgent nutrition support such as complete Community-based Management of Acute Malnutrition Model (CMAM) programme/packages including Targeted Supplementary Feeding Programme (TSFP) component for Moderately Acute Malnourished Children (MAM) as well as other nutrition sensitive interventions.

### Situation monitoring and update

- Establish an early warning mechanism (sentinel sites) so that special attention to those alert areas in term of health care needs of the community.
- Food security conditions in Sindh need to be monitored regularly given that due to the high levels of acute food insecurity, and the high incidences of poverty, households are extremely vulnerable to shocks.
- Regular monitoring of food security and livelihoods could be done through seasonal surveys such as Livelihood and Food Security Assessments.
- The IPC should be carried out every year to regularly monitor the food security conditions across the vulnerable districts of Sindh. For this to occur, an improved mechanism for regular data collection needs to be in place.
- The conditions in the analyzed areas are heavily dependent on rainfall and the conditions during the monsoon period need to be monitored closely to accurately assess the potential impacts of the rain spells on food security in the projection period. Once rainfall data is available the projection classification may be revised.
- If the macroeconomic trends persist with rising inflation there could be more adverse effects on the food security conditions in the coming months and projections may also be revised to reflect those changes.



### PROCESS, METHODOLOGY AND LIMITATIONS OF ANALYSIS

The IPC acute food insecurity analysis assessed two time periods: the analysis for the current period (October 2018-July 2019) was based on the Sindh Drought Needs Assessment (SDNA) conducted in October 2018 by the Natural Disasters Consortium and other secondary information sources which reflected on existing factors that lead to food insecurity; and the projected period (July-October 2019) was based on SDNA, other secondary information and forward-looking assumptions on rainfall, food prices and crop harvests. The analysis covered the drought-affected areas of 7 districts of Sindh, namely, Tharparkar, Umerkot, Sanghar, Jamshoro, Badin, Dadu and Qambar Shahdadkot. A certain number of Revenue Villages/Dehs of these districts were notified as calamity-affected by the Government of Sindh in August 2018. The NDC comprised of IOM, FAO, UNICEF, HANDS and ACTED, whereas WFP and WHO also provided technical support to complete the SDNA. The SDNA was conducted 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, and to provide recommendations to the Government of Sindh, 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.

A joint training and analysis workshop for drought-affected areas of Sindh and Balochistan was held on 15-22 April 2019 at Provincial Disaster Management Authority (PDMA) Balochistan at Quetta, Balochistan, Pakistan. The workshop was attended by international technical experts as well as around 50 professionals representing Federal and Provincial government departments (Sindh and Balochistan), UN organizations, international and local NGOs.

The data used in the analysis was organized according to the IPC analytical framework and includes food security contributing factors and outcome indicators. The data was collected from multiple sources; Crop Reporting Services (CRS) of Agriculture Department Sindh, Livestock Department Sindh, Food Department Sindh, Provincial Disaster Management Authority (PDMA) Sindh, Pakistan Bureau of Statistics (PBS), Pakistan Meteorological Department (PMD), and international organizations.

Data sources used for this analysis included: 1) Sindh Drought Needs Assessment (SDNA) conducted by the Natural Disasters Consortium in collaboration with the PDMA Sindh. The SDNA was carried out in rural areas of these districts, which were notified by the Government of Sindh as calamity/drought-affected. The SDNA provided information on a wide range of indicators: both outcome and contributing factors. The outcome indicators included in the analysis are Food Consumption Score (FCS), Household Dietary Diversity Score (HDDS), Household Hunger Scale (HHS), reduced Coping Strategy Index (rCSI), Livelihood Coping Strategies and Acute Malnutrition (prevalence of wasting among children under 5). Other data included in the analysis are 1) Cereals and Fodder Production data from CRS of Sindh Agriculture Department, 2) Livestock population data from Livestock Department, 3) Food Prices data from PBS, 4) Food Assistance/Distribution from PDMA Sindh, 5) Wheat Stocks data from Sindh Food Department, 6) Precipitation/Rainfall and NDVI from PMD; and 87 Poverty Incidence from UNDP/Ministry of Planning, Development and Reform.

#### Limitations of the Analysis and Recommendation for Next Analysis

This analysis is only limited to drought-affected areas of 7 districts and does not represent the situation of the entire district/ areas that were not notified. The projection analysis might have been more useful if more indicators had been available.

It is recommended to conduct regular/seasonal IPC acute food insecurity analyses to inform the policy makers on the food insecurity situation in the drought-affected areas and other regions of interest. The next IPC acute food insecurity analysis is suggested to be conducted in October/November 2019 (in case of no/very limited Monsoon in July-September 2019) or March/April 2020 in case of adequate Monsoon to monitor the food insecurity situation. However, next or seasonal IPC analyses would be possible with availability of recent data, which is a major challenge, and needs resources to collect primary data and conduct the IPC analysis. The IPC stakeholders may pool resources to collect primary data and conduct seasonal IPC analyses for better and more informed evidence on food insecurity and response planning.

#### What are the IPC and IPC Acute Food Insecurity?

The IPC is a set of tools and procedures based on international standards to classify the severity and characteristics of acute food and nutrition crises as well as chronic food insecurity. The IPC consists of four mutually reinforcing functions, each with a set of specific protocols (tools and procedures). The core IPC parameters include consensus building, convergence of evidence, accountability, transparency and comparability. The IPC analysis aims at informing emergency response as well as medium and long-term food security policy and programming.

For the IPC, **Acute Food Insecurity** is defined as any manifestation of food insecurity found in a specified area at a specific point in time of a severity that threatens lives or livelihoods, or both, regardless of the causes, context or duration. It is highly susceptible to change and can occur and manifest in a population within a short amount of time, as a result of sudden changes or shocks that negatively impact the determinants of food insecurity.

### Acknowledgements

The training/analysis workshop was led by Ms. Duaa Sayed and Mr. Feroz Ahmed (IPC Global Support Unit GSU); and co-facilitated by Mr. Abul Baies Rashidi (IPC Afghanistan) and Mr. Hamidullah Hamdard (WFP Afghanistan), Mr. Ajmal Jahangeer (FAO Pakistan), Mr. Muhammad Kazim (Sindh Bureau of Statistics), Dr. Amir Ali (Nutrition Support Program Sindh), Mr. Mohsin Badar (Concern Worldwide) and Mr. Aman ur Rehman (WFP Pakistan). The support of Ms. Asifa Ghani, Mr. Muhammad Afzal, Mr. Habib Wardag, Syed Khadim Shah for IPC Training/Analysis workshop is highly appreciated.

This analysis has been conducted in close collaboration with IPC stakeholders at national and provincial levels including Ministry of National Food Security and Research (MNFSR), Pakistan Agriculture Research Council, Ministry of Planning, Development and Reform, National Disaster Management Authority (NDMA), Provincial Disaster Management Authority (PDMA) Sindh, Sindh Bureau of Statistics, Nutrition Support Program Sindh, Agriculture Department Sindh, Livestock Department Sindh, UN Organizations (FAO, WFP, UNICEF, WHO), International and National NGOs (WHH, Concern Worldwide, TRDP and ACTED).

The analysis has benefited from the technical and financial support of FAO and IPC Global Support Unit

Classification of food insecurity and malnutrition conducted using the IPC protocols, which are developed and implemented worldwide by the IPC Global Partnership -Action Against Hunger, CARE, CILSS, EC-JRC , FAO, FEWSNET, Global Food Security Cluster, Global Nutrition Cluster, IGAD, Oxfam, PROGRESAN-SICA, SADC, Save the Children, UNICEF and WFP.

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