

**DROUGHT SITUATION ASSESSMENT  
OF  
THAR DESERT OF UMERKOT  
2008-09**

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**IMPACT OF DROUGHT ON THE FOOD SECURITY AND LIVELIHOODS in  
UMERKOT DISTRICTS OF SINDH PROVINCE, PAKISTAN**

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## **ACRONYMS**

SSSS	Sami Samaj Sujag Sangat
AA	Action Aid
DA	Development Area
WFP	World Food Programme
Uc	union council
Kg	Kilogram
Rs	Rupees
NGO	Non Governmental Organization
TRDP	Thardeep Rural Development Programme
mm	mille meter
DCO	District Coordination officer
EDO	Executive District officer
ADOE	Assistant District Officer Education
T.B	Ttuberculosis

## **GLOSSARY**

<i>Moth</i>	kidney bean
<i>Bajra</i>	Millet
<i>Gawar</i>	Cluster Bean
<i>Para</i>	Hamlet
<i>Tarai</i>	Water Pond
<i>Tabhas</i>	Small Water Reservoirs
maan	equal to 40 kg
Par	small well which charges on rain water



## Message

The drought is a regular and natural phenomenon of the arid zones all over the world and desert Thar of district Umerkot is not the exception but its impact can be minimized. Though the desert area of district Umerkot has been witnessing severe drought situation after every two years; like other arid zones of Sindh province; for many years yet no permanent drought mitigation policy is formulated. The current survey and post drought assessment conducted by Sami Samaj Sujag Sangat is telling the true story of people's vulnerabilities and hardships and impacts on their socio-economic life. This year the barrage area is also produced less and the low rain fall in Thar Desert of Umerkot has multiplied the vulnerabilities of the people of Umerkot in context of food insecurity.

Though district government departments has taken efforts to provide assistance to the people of arid region to cope with the problem temporarily but there is dire need to formulate drought mitigation policy on permanent basis. In this regard role of civil society organizations is also imperative and it is the time to meet together for coping such disasters permanently.

The SSSS needs to provide skills training to people and mobilize them for exploring alternate economic resources and developing coping mechanism in local context.

The district government and its line departments will fully cooperate for future interventions in this regard and jointly we will meet the challenges.

Best wishes for your future endeavors

A handwritten signature in blue ink, appearing to read 'Akbar Leghari', with a long horizontal stroke extending to the right.

Akbar Leghari  
District Coordination Officer  
District Umerkot  
22<sup>nd</sup> May, 2009

## **Summary**

During the month of May 2009, SSSS conducted a drought assessment in Umerkot District (Thar Desert area) of Sindh province.

Drought is not as dramatic as other disasters. It is slow and impacts a very large population for a long period of time. Drought is a recurrent phenomenon in Thar Desert area that is characterized by chronic poverty. This cyclical annual disaster progressively weakens local population capacity and resource bases. Increasingly exhausted coping strategies have significantly deteriorated the quality of life. Interventions should address the immediate humanitarian needs of the population and consider longer-term developmental strategies.

### **Impact of drought on the livelihood of local populations:**

The effects of drought and population relates to large scale migration of the human population along with their cattle, mostly from Eastern and southern part of Thar Desert of Umerkot District. In Thar Desert, impermanent migrations to barrage areas or cities are part of the livelihood of people. This laid-back work brings a significant complement of income to the poorest families, who own limited livestock and land. Yet, recurrent droughts have not only affected their agricultural activities, but their livestock productions as well. Casual work for a temporary period does not bring enough income to support the families. As a result, households in drought affected of Umerkot District also have to sell their livestock and reduce their food intake.

The livelihood of the communities is almost entirely based on their livestock. Drought has dried up local pastures and affected the health conditions of animals. Communities have reacted by selling their weakest animals. As this phenomenon persists since many years, livestock herds have significantly decreased in numbers: the remaining animals are often in poor conditions, with very low productivity. Sales of livestock cannot provide anymore enough income to people in order to meet the basic needs of their families. People are working in brick kiln and casual labor as a full time employment in order to complement the incomes of the family. These options seem to be insufficient and households are reducing their food intake in order to cope with the current situation, and are stricken by disease.

### **Impact on drinking water supply**

Drought also has an effect on water sources. There has been 79% overall deficit rainfall in union councils Kaplor and Faqeer Abdullah western parts of Chhore and khokhrapar union councils Area of Taluka umerkot have nearly dried up. The recharge of ground water aquifers, wells, tanks and other water bodies have been adversely impacted. Safe drinking water is non-existent. With the persisting drought conditions, water is available in low quantity and the collection of water has become a

challenging task that is often carried by women and children. Quality of water is very poor, with a high presence of brackish water in Kaplor and Faqeer Abdullah union councils of Thar desert areas of district Umerkot.

### **Impact on health conditions**

No outbreak of diseases have been reported recently in drought affected areas. Yet, the health situation is worrying in Khokhrapar and Kaplore union councils where most of the population is reportedly affected by TB and cannot afford any treatment. Amongst the vulnerable populations, women especially pregnant and lactating mothers, old and infirm people, especially ambled and destitute, children especially infants and new born babies are most severely affected.

Health facilities are not easily accessible in any of the assessed areas, which further multiplies the problem of women and children. This is a particular problem for women.

### **Recommendations**

Immediate interventions are proposed in order to improve temporarily the situation of communities. Even though these interventions may vary depending on the occurrence of rain, many of the very poor and poor households in the areas visited have already exhausted their coping mechanisms and are in need of immediate assistance.

Yet, as drought is a chronic phenomenon, it is necessary to couple immediate actions with relevant longer-term interventions, in order to help local populations, not only to restore their livelihood, but also to adapt their livelihoods to the current situation and to build their capacity in the preparedness for drought disaster.

## **INTRODUCTION**

### **Assessment rationale**

Drought occurred in 2008-09, in arid zones of Sindh i.e. Umerkot, Tharparkar, Khairpur, Dadu and Sanghar districts of Sindh province, making population vulnerable to food insecurity. From September-08 till October 2009, the Meteorological Department of Pakistan has been announcing new emerging drought conditions in the south of the country, in Sindh and Balochistan provinces, striking the same affected communities. On the field, impact of drought was continuously highlighted by local NGOs and media.

In May 2009, Action Aid DA-34 Team and management of SSSS in its monthly meeting decided to undertake a post drought assessment in order to gauge the need for assistance of local communities. As the drought situation has become a recurrent phenomenon, it was necessary, not only to

determine the need for an immediate emergency response, but also to look at the risks to livelihoods in the longer term in order to identify livelihood support interventions.

The assessment took place in 07 union councils of Thar desert of District Umerkot Sindh province. It was conducted from 8<sup>th</sup> to 15<sup>th</sup> of May 2009.

### **Assessment objectives**

The objective of drought assessment was to understand and know the post drought situation of the drought 2008-09 and to spell out its impacts, on socio-economic life of the population. Also assess the upshot of the drought on the animal, human population and on environment. In this regard SSSS with funding of Action Aid Pakistan has planned to prepare survey report of post drought situation of district Umerkot in general and desert portion in particular.

The assessment methodology included following main activities;

- Data collection from sample villages of entire 07 union councils of desert part of Umerkot district.
- Dialogue and brainstorming exercises in separate men and women focused groups in village organization in all sample villages within SSSS programme area.
- Discussion and secondary data collection from the government line departments and NGO offices at the district and UCs head quarter.
- Assessment of food security situation in the areas of Thar desert using PRA approach.
- Identification of existing coping mechanism and analysis of vulnerability to food insecurity in the current scenario.
- Integration of the livelihood component to other social sector intervention and possibility to move more towards holistic approach in the drought scenario.
- Assessment of local communities' capacity to respond to the crisis.
- Production of key recommendations including if a response is needed and of what nature.

## METHODOLOGY

### Data collection from sample villages of Thar Desert of Umerkot

A workshop cum meeting of one day was organized on the 8<sup>th</sup> of May in



Umerkot at HID center of SSSS, in order to provide a basic training to the assessment team. On the basis of discussion with team members a checklist was prepared that included a series of open -ended questions to be asked in the field. The data collection was built upon the results of the discourse of men and women community organization

Around 676 members from 350 households in 11 villages of Kaplore, Faqeer Abdullah, Khejrari, Chhore, Kharoro, Ghareebabad and, Khokhrapar union councils of Umerkot taluka were interviewed.

The team also had discussion with other key persons; like DCO, Nazims, councilors, Head Master of Primary and Secondary School, Doctors, Shopkeepers, Cattle traders, Transporters, Carpet contractors, NGO representatives, Assisstant Mukhtiarkar, Executive District Officer Health, District officer Animal Husbandry and Senior Veterinary officer. The impressions were recorded in accordance with the given checklist and in the shape of case studies.

Fieldwork took place from the 9<sup>th</sup> to 15<sup>th</sup> of May 2009. The teams having different number of participants, different numbes of villages were surveyed.

Villages were selected by the teams according to their level of vulnerability to the drought and their typicality of the area. In each union council, villages were selected on the bases of location, different ethnic communities and remoteness. Teams conducted focused group discussions with male and female villagers as well as children. Due to local customs, these focused group discussions were held separately in some villages.

## Region perspective The Sindh Province.

Sindh is the Southeastern province of Pakistan, it is spread over 140,914 sq kilometers, and the province of Sindh can be divided longitudinally in three distinct sections of almost equal size. The Western part is a hilly tract known as Kohistan; the central portion a fertile valley irrigated by the River Indus and in the Eastern lays the desert section. The Sindh Arid Zone comprises of the Kohistan and the Eastern desert of Thar. Spread over 68,000 Sq. Kms, it constitutes about 48% of the total geographical area of the province. Except for their extreme aridity due to scanty and erratic rainfall, the two component tracts have widely different geomorphologic characteristics and distinct profiles. Various kinds of land/soil types encountered in the Arid Zone can be placed in following broad categories: -

### 1) Thar Region:

It consists of Talukas of Diplo, Mithi, Nangarparkar, Chachro and part of Umerkot in Tharparkar and Umerkot districts with a geographical area of about 22,000 sq. kms.

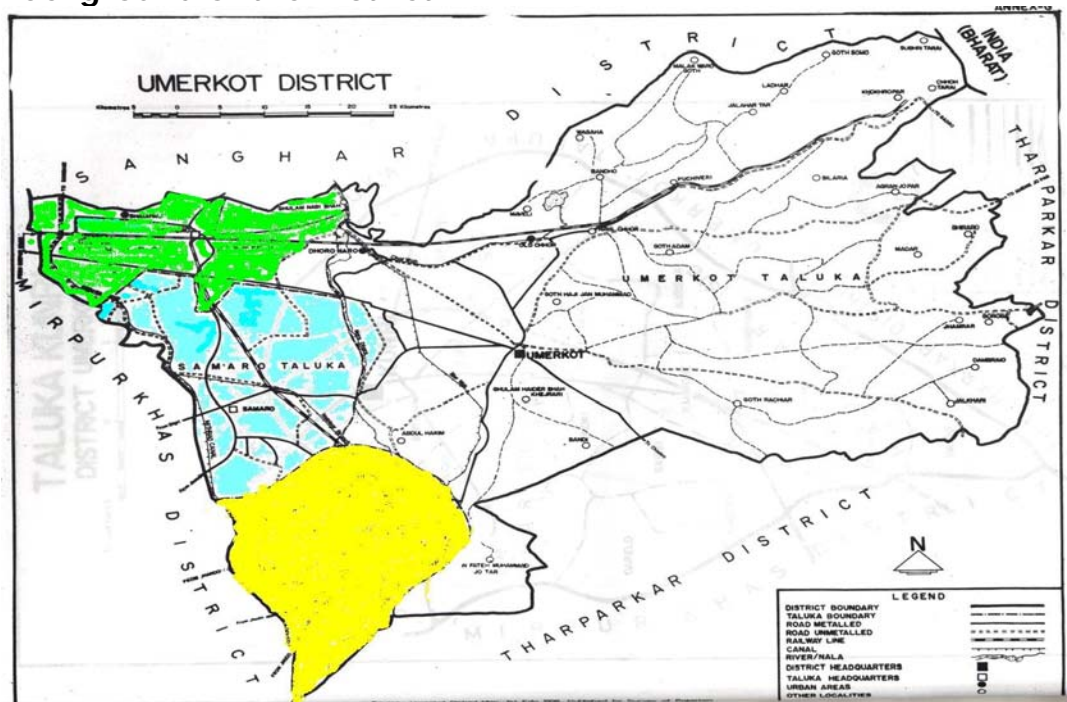
### 2)Nara region:

The area comprises of desert portions of Sukkar, Khairpur and Sanghar districts extended over 23,000 sq. kms.

### 3)Kohistan region:

It comprises of the entire western hilly tract and the vast expanses of flat land locally called as "Kachho", extending from Kubo Saeed Khan in the north of Manchar Lake in south. The total area of the region is about 43,000 sq. kms.

## Background of the District



District Umerkot is located on South-Western border of the Sindh province, surrounded in the East and south by Thar and Rajasthan India which is largest desert in Asia, North by Sanghar District and west by Mirpurkhas Districts.

Geographically district Umerkot is spread on 5608 square kilometers. According to census report 1998 total population of the district is 663,100 with the growth rate of 3.28% per annum. That means the projected population of the district at present comes to 886, 492 (males' 446,355 and females 412,021). The population include 51.27% Muslims, 47.56% are Hindus. The rest of 1.17% is Christians and Ahmedis. If we look in rural / urban divide, the 16.81% of the population is urban and 83.19 are rural, almost 74% of them are living under the poverty line with literacy rate of only 6%.

Umerkot was part of District Mirpurkhas till its establishment in April, 1993 comprised of four Talukas/Tehsils i.e. Umerkot, Kunri, Samaro and Pithoro. The district consists of 27 Union Councils out of them 7 union councils comes under desert portion of district. The topography of the district has two distinct portions the irrigated area in the west and north and the desert area with sandy dunes covered with thorny bushes in the east and south. The eastern Nara Canal is the demarcation line between two regions, that's why the area is called the Nara valley as well.

Umerkot was made capital of Sindh in 1053 AD by Soomra rulers for a short period after fall of Ghazni (Afghan) invaders. Umerkot fort still witnesses the historical importance of the town. Umerkot has historical back ground with many traditional tales and stories. When King Humayun was driven from his throne; he came to Sindh. Rulers of Sindh (Umerkot) and Iran helped Humayun to recruit a new army to regain the throne. During his stay in Umerkot he got a child Akber, who became the great Mughal King of India. Umerkot has legendary folk stories of Umer-Marvi and Moomal – Rano.

### **An over view of Thar Desert of Umerkot District**

This arid region lies mainly in the west and north part of district, popularly called Thar Desert, bounded to the south-west by Tharparkar district, to the north-west by Achro thar of Sanghar District and Nara region of Khairpur district and to the east and North by India's Rajasthan. It occupies an area of about 1250 square kilometers or 22.28 % of the total geographical area of the District and has population of about 164928 comprising 27488 HHs (256 villages 25 dehs of 7 Union councils) the population of the area is a mix of Muslims and Hindus. The region distinguishes by its low and erratic rainfall, high atmospheric aridity, abundant sunshine and heat; strong dust-raising winds and sparse vegetation cover. High sand dunes and sandy plains cover 70% of its surface. The region is gifted with a large variety of natural vegetation, there being over seven hundred species of grasses, shrubs and trees. The perennial amongst these are hardy, tenacious enough to withstand extended drought, efficient builders of biomass and yet nutritious as a feed.

But the problem is not lack of good species but their overexploitation leading to a greatly depleted cover, as detailed later. The major source of income is rain-fed agriculture and livestock rearing.

In Thar Desert of Umerkot, the monsoon season starts from 2<sup>nd</sup> week of June and continues to the end of September. The mean annual rainfall over the Thar is around in a good year ranges between 200-250 millimeters and nearly 93% of the rain fall comes in the form of few spells confined to the monsoon season that last for 65-75 days from the month of June to September. If rains do not fall during this period, a situation like drought emerges resulting in acute shortage of food and fodder.

## **FINDINGS**

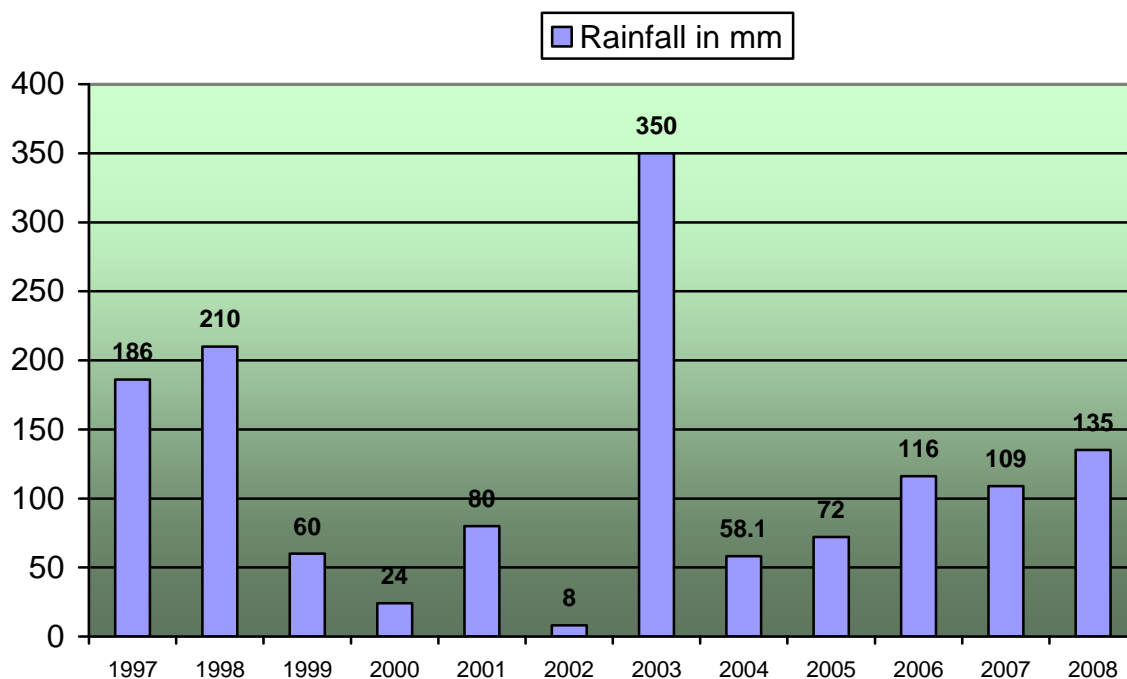
### **History of drought In Area**

Thar Desert also has previous history of droughts, the most severe being one in early 20th century (1905). The region receives scanty annual average rainfall of less than 10 inches (Bhatia, 1963). As back as 1925, the Royal Commission on Indian Agriculture has described the region's economy as a 'gamble on the monsoon'. (cited by Chen, 1986).

The area has witnessed repeated severe drought if there is no raining during the year. The worst drought in the history is the droughts in 1899 and in 1999. That's why the people conclude it as the same kind of drought after every 100 years. However the drought is routine phenomenon of the Thar Desert when it doesn't rain at least once a year. During the drought people sell their live stock at lower prices for their survival. Since last two years moderate drought reported due to inadequate rainfall.

According to village reports and data of rainfall (See Table No), each monsoon has been progressively poorer since 1997 except 2003, falling short of minimum agronomic requirement of 200 mm, with some areas not receiving any rainfall, culminating in an almost total failure of agricultural crops.

S#	Year	Rainfall in mm
1	1997	186
2	1998	210
3	1999	60
4	2000	24
5	2001	80
6	2002	8
7	2003	350
8	2004	58.1
9	2005	72
10	2006	116
11	2007	109
12	2008	135.



During the drought years women and children suffer more. They have to walk longer for water fetching and are more affected of malnutrition. Every thing becomes more expensive and difficult to access especially medical treatment to mother and child health concerns.

During the drought year poor farmers and peasants use their stored seed and later on they purchase the seed on high prices and mark up because of hand made shortage of available seed by the local traders/hoarders of the area.

The trauma of these changes is that the Thari population is no longer able to survive the period of drought and hence more than 90 percent of them are in cycle of bad debt to moneylenders to whom they have to pay a large sum of interests along with principal amount.

### **Current Drought Situation.**

Widespread worst drought has been loomed in (Thar Desert) of Umerkot district in 2008. Failure of monsoon observed in all the 07 Union councils i.e. Kaplor, Faqeer Abdualah, Khejrari, Chhore, Kharoro, Ghareebabad and, Khokhrapar, of the Thar desert of Umerkot reeling under drought. Rain begin falling across much of Sindh arid zone SAZ during the middle of June, the monsoon season starts from June and continues to the September. Annual precipitation in a good year ranges between 200-300 millimeters and happens mostly in the monsoon. The main crops sowed immediately after the rain in Thar, are Bajra (millet), moth (Kidney bean), Moong and guwar. These crops require at least three rains of 100-150 mm in intensity after the

interval of one month during the monsoon for the maturity. So, a year is good in desert if it rains three times at minimum during the monsoon. For 95 per cent of the population in rural areas of above UCs, the major source of Income is rain-fed agriculture and livestock

This year Thar Desert is facing one of the most terrible droughts of the decade. There are areas where people have not harvested even one kilogram of grain during the whole monsoon period. This year seems to be an extremely bad year for farmers, already hit by drought in the previous couple of years., this is the 2nd continuous drought year in the region and all the UCs of Thar desert of Taluka Umerkot are affected.

The Thar Desert received only 135 mm rainfall up to 15th august 2008, against the normal of 300 mm of the overall monsoon.

The situation has been further compounded by the fact that the water-table has receded dramatically and traditional water catchments have gone dry. Practicing rain-fed agriculture has become increasingly difficult. Pastoralists and agriculturalists alike face a real threat to their food security and many who have lost everything are reduced to taking high interest loans from moneylenders, making their situation all the more precarious. The agony sale of livestock has been rampant - in Thar a cow that would cost Rs. 25,000 is available at the rate of 6000-7000. Likewise, goat and sheep that would cost Rs 4,500 – 5000 in normal times are now available for Rs 1100-1500. The drought has also led to considerable migration from villages and nomadic herdsmen have lost most of their cattle, the only source of their livelihood in these arid regions.

**Approximately one hundred and fifty thousands people and 0.6 million livestock** have been affected this year alone. Livestock have started dying of hunger and thirst. People have started abandoning their cattle after praying to God for their lives. Migration to cities and other adjoining districts is up. Social structures in villages have suffered. Weddings have been postponed indefinitely. There is a dreary stillness in the air.

### **Upshot of Drought condition**

Widespread drought 2008-09 has given a tough time to Thari population of District Umerkot. Failure of monsoon saw all the seven UCs of district entire thar reeling under drought causing severe shortage of food, fodder, drinking water and employment opportunities.

**The impact of the drought may not be as dramatic as a cyclone or an earthquake, but it certainly is much larger in proportion and has to be endured for a much longer period of time**

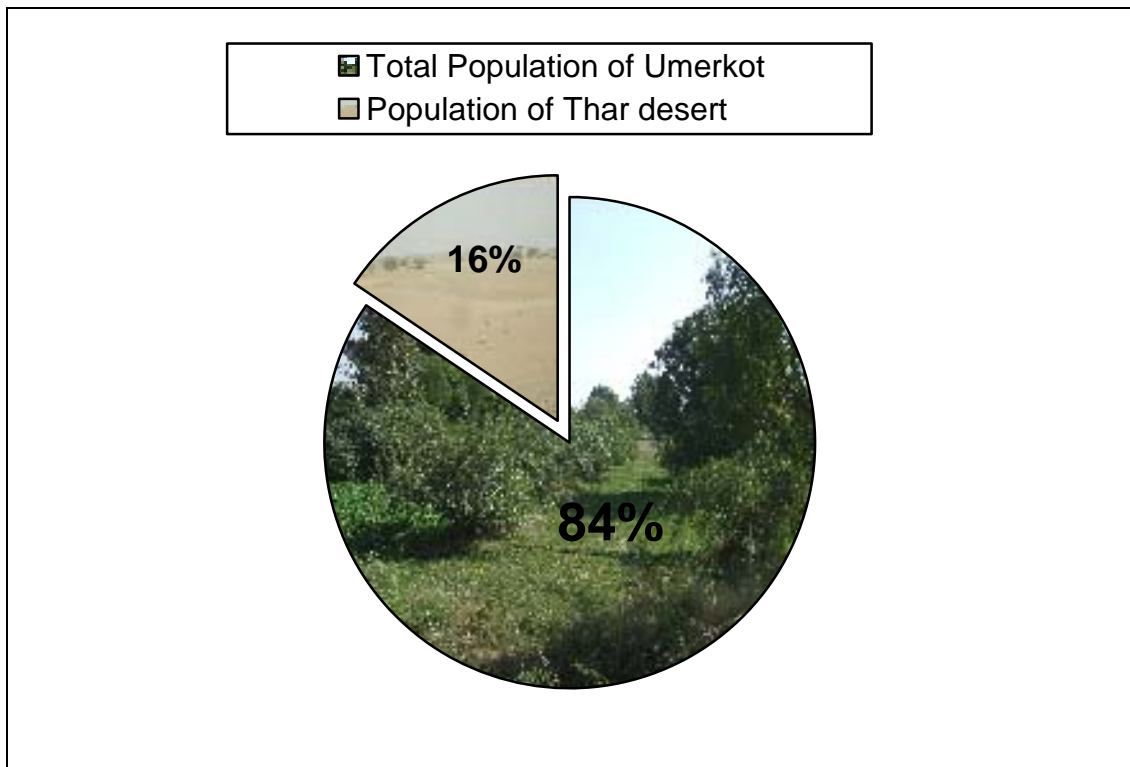
This year's drought heaves many issues which need immediate notice. Some of these are discussed below

### **Area under drought**

**As mentioned in the earlier situation report, out of the 27 total union councils in district drought is prevalent in 07 Union councils and among these 25 deh`s is affected severely. 256 villages are under the clutch of drought**

The following Table shows the Union Council wise number of village locations, estimated household and population residing in the desert area of Taluka Umerkot.

S.#	Name of Union Council	# Dehs	# of villages	# of HHs	Population
1	Kaplore	05	76	7833	46998
2	Khokhrapar	03	77	4731	28386
3	Fakir Abdullah	09	39	4800	28800
4	Kharoro Syed	02	28	2663	15978
5	Khejrari	01	04	500	3000
6	Chhore	01	24	2301	13806
7	Gharibabad	04	08	4660	27960
	<b>Total=====&gt;</b>	<b>25</b>	<b>256</b>	<b>27488</b>	<b>164928</b>



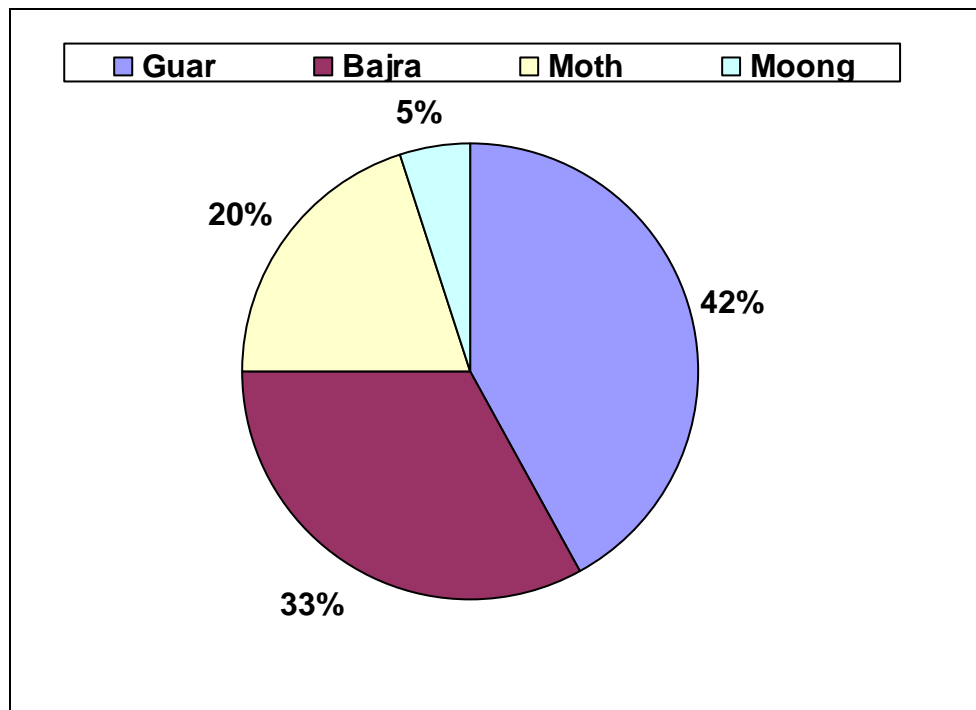
### Impact on Cultivation pattern (Agriculture)

This year, 95 percent of households have cultivated an estimated 274,940 acres of land. On an average one household cultivated 10 acre and uses 20-kilogram of millet, 5kg moong and moth and 40-kilogram of cluster bean as a seed on first monsoon rain. The cultivation continued for 2 weeks. Majority of households took care for 1 ½ month, on an average

one household invested as input Rs: 10,000 (which is about 26 million PK rupees) in agricultural fields. However the failure of rainfall resulted in complete loss of all investment and also expected yield out put about 860 million Pk rupees therefore an estimated total loss in agriculture sector has been 886 million rupees

**Table Estimated Area under cultivation**

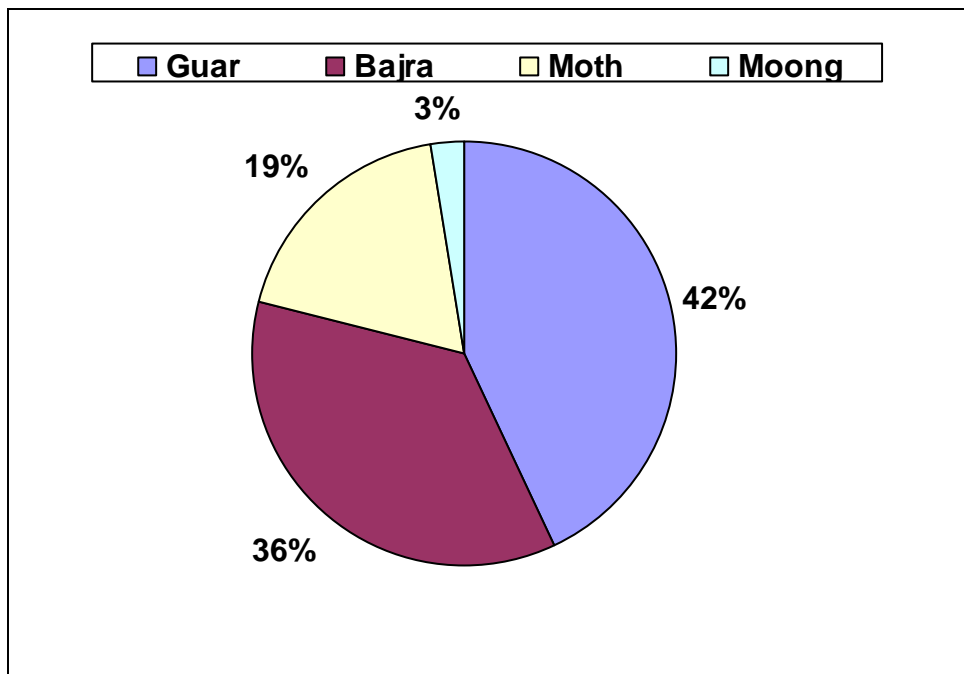
S#	U.C	Guwar	Bajra	Moth	Moong	Total
	<b>Kaplore</b>	32899	25849	15666	3916	78330
	<b>Khokhrapar</b>	19870	15612	9462	2366	47310
	<b>Fakir Abdullah</b>	20160	15840	9600	2400	48000
	<b>Kharoro Syed</b>	11185	8788	5326	1331	26630
	<b>Khejrari</b>	2100	1650	1000	250	5000
	<b>Chhore</b>	9664	7593	4602	1150	23010
	<b>Gharibabad</b>	19597	15398	9332	2333	46660
		<b>115475</b>	<b>90730</b>	<b>54988</b>	<b>13747</b>	<b>274940</b>



### Expected yield in (Mann)

S#	U.C	Guwar	Bajra	Moth	Moong	Total
	<b>Kaplore</b>	131596	109858	56867	7832	
	<b>Khokhrapar</b>	79480	66351	34347	4732	
	<b>Fakir Abdullah</b>	80640	67320	34848	4800	
	<b>Kharoro Syed</b>	44740	37349	19333	2662	
	<b>Khejrari</b>	8400	7012	3630	500	
	<b>Chhore</b>	38656	32270	16705	2300	
	<b>Gharibabad</b>	78388	65441	33875	4666	
		<b>461900</b>	<b>385601</b>	<b>199605</b>	<b>27494</b>	<b>1074600</b>

**Note:** minimum average yield in mann/acre guwar 4, bajra 4.25, Moth 3.6 and moong is 2 mann



Above figures of area under cultivation and yield are calculated on the basis of best perception of community of randomly assessed villages of the area

### Seasonal grasses (Vegetative cover)

The grasses that germinated on the first shower survived for 15 days, the dry grazing land had very little to offer. In this situation the most affected in Thar are the people who are heavily dependant on livestock. Due to dearth of fodder the livestock owners are compelled to purchase the fodder from market at high prices due to off season. This has resulted in an increase in demand of concentrated rations and has caused a sudden 20 percent hike in the price of fodder.



### **Food**

Due to drought, the agriculture system failed and thus the supply of millet and cluster bean from within Thar does not exist, which has resulted in scarcity of food. However the demand of wheat flour and rice has increased and it has become a unilateral flow in which rural households have to purchase daily commodities from the market with cash and have nothing to sell at the same place. Where the prices in local market are rising, there is an increase of prices by 8.3% in flour and 18.18% in rice. Due to the poor purchasing power most of the people have reduced the frequency of meals from 3 to 1. At this stage, drought victims are often compelled to buy food by selling their assets such as livestock, land and other household goods. The current food deficit of 70 percent indicates the state of hunger. In this extreme situation people may start to consume wild plants and leaves, which are not normally eaten and may lead to several diseases such as diarrhea and night blindness etc.

### **Migration**

The migration of 15% of *Tharis*, particularly male heads of households is normal, during dry period. They migrate in the search of wage labor and livestock fodder, but this year however, the nature and scale of migration has changed. By the end of October 2008, 20 % people with entire families and 58 % earning heads left (5800 families) Thar for irrigated areas to seek wage labor and to secure the feed for animals. As the situation in the neighboring flood plain areas, which normally absorb the heavy influx of migration from Thar, in normal conditions does not prevail because of the irrigation water shortage. The field crops (cotton, chillies, and sugarcane) under cultivation have reduced thereby affecting the capacity of absorption of over saturated labor from within and Thar.



### Impact on education

Due to frequent drought, poor and vulnerable households' particularly low caste communities such as Bheel & kolhi migrated to barrage areas; another serious secondary impact of migration is on education sector in the form of large ratio of drop-out from primary schools during current drought it is roughly estimated that 15% drop out from Thar area.

### Impact on Health

The food deficit and limited opportunities of the livelihood have deteriorated the overall status of health in women and children. The drought has reduced their leafy vegetable in take to one meal a day and an overall decrease in the in take of healthy and nutritious food. Thus now a lot of elderly people, children and pregnant and lactating mothers suffer from night blindness and anemia and have a tendency to increase to an endemic point.

#### Drought has created more plights for our family

Village Ramsar is situated 45 Km in the East from Umerkot. The village has about 152 House Holds of Meghwar, Arisar, Sameja and other communities. Being a desert village this village is also drought affected. There is not any health facility in the village people go for health treatment to Umerkot and other villages where health facilities are available.

**Momal Wd/o RANCHO** is the head of a family; comprised of 07 member including 5 children all are below the age of 10 yrs; says that:

My husband have been died during current drought who was suffering from the tuberculosis for last five years, there is no any health facility so, could not get proper treatment. Some body advised him to go to Umerkot T.B Centre, where he got treatment but, could not be better. Later we sold our livestock and piece of lands and went to Ohja Institute of Chest, Karachi and got treatment for six months regularly. Unfortunately this year we are facing acute drought due to that my husband could not got even simple diet as normal and could not recovered from T.B, and died. She says that drought has left no any source of income for our family and I am not able to cater need of one time food my children. Situation compelled me to send my two children for carpet weaving to earn bread and butter for us. They also compelled to leave their eduction in mid.



Case Study by:

**Muhammad Ishaque Sand**

Field Coordinator

SSSS Umerkot

There were not recent disease outbreaks reported yet; the health situation is worrying in Kaplor and Khokhrapar union councils where health facilities are not easily accessible for most of the population in general, and women and children in particular.

## Drinking Water



There is severe drinking water scarcity in all the 25 dehs of 07 drought affected union councils of Thar desert dry ponds, wells and hand pumps are making life miserable for the poor sector of society. About 30% of the hand pumps and wells have gone dry. Women have to walk long distances to fetch water. Kaplor union council is vulnerable in terms of all the scarcities, and the situation will further worsen in the coming months. Due to the very meager rainfall, potable water is now an extremely rare commodity. The drinking water situation in several villages is alarming: inhabitants can replenish their drinking water supply only once every 72 hours. In others, this figure is once every 48 hours. Mothers and children travel 8-10 hours per day to procure 30 liters of drinking water. Drinking water prices are skyrocketing. Water rates have gone up. Tanker Kekra (GMC truck) are charging extremely high prices. One tanker tractor of 1000 liters costs from Rs.2800 to 5000 depending on location and distance. The quality of drinking

### Other special impacts of Drought

- Lack of vegetation cover and scarcity of water because of less than average rainfall this year dry and hot summer making it difficult for wild life and birds to quench their thirst. lack of water in the severe weather has led to a loss in the bird population
- The majority of small cattle breeders (25 cattle heads) have suffered a reduction in herd size due to mortality and absence of fodder
- Increased in female headed household due to migration of men in barrage areas, ostensibly for search of job putting increased economic and social pressure on the women to ensure the subsistence of household with the help of uncertain remittance
- The villagers argued that due to migration social cohesion of households and communities have been affected due to segregation of families and geographically dislocation. It has become difficult for family members to unite on occasion of family bereavement or festivals.
- Most of the planned marriages have been delayed due to current drought.

water is deteriorating at a very rapid rate: in many villages people are facing fluoride problems, and 164 villages are drinking brackish water

### **Impact on Livestock, Fodder**

The estimated population of livestock in Thar Desert of Umerkot is about 650,000; this includes 54% goats, 24% sheep, 13% cows and 9% buffalos, horses, camels, donkeys and poultry. As of November 2008, around 30 % of the farmers in each village had enough dry as well as wet fodder to sustain their cattle for about a month. Due to the drought, people migrated with 80% cows' and 10% sheep, however goats were generally retained, as there is a hope that they may survive on desert bushes and could be sold to get cash for their subsistence. However until now there has been noticed a 65 % increased sale of sheep and goat in local market as compared to the figures of pre-monsoon. Therefore, the market value of the overcrowded sale has reduced by 53.8 percent (average rate of goat has declined to Rs. 1400 from Rs. 3000, the average rate of sheep to Rs. 1000 from Rs 2,400, and the value of cow also dropped down from Rs 25000 to Rs 10,000). More than 47,000 livestock particularly goats and sheep died of hunger or thirst and diseases in the last 08 months 16,000 cows and 140000 sheep and 250000 goats have neither migrated nor been sold and are at a very high risk and the survival is now in jeopardy.



Fodder scarcity for cattle and small animals particularly in the Kaplore, Khokhrapar and part of Fakeer Abdullah and Kharoro and entire Thar is a major concern for the drought affected population now. Animal carcasses can be seen in the above UCs along the roadsides. The situation is In other Union councils have a bit better situation in terms of fodder security, people have fodder till May 2009.

No measures are being undertaken by the Provincial, District government and NGOs to provide nutritional feed to the cattle population. The health status of the animals and the produce is thus decreasing and will be a major cause of mortality in the coming months.

The district administrations in these UCs have not taken sufficient step to vaccinate the animals against outbreak of this disease.

### **Problems Affecting Livestock**

- The biggest problem - finding sufficient water for livestock
- Procuring feed for livestock
- Medical care for livestock in case of illnesses/epidemics
- Prevention of livestock epidemics

### **Impact of drought on Women and Children**



Women are most-affected drought victims, as the earning males of 58% of households have left for the irrigated areas; the women of the families now take the responsibility of the whole household. The effect of drought on the households whose male earning heads have migrated in search of wage, which is too meager has resulted in increasing the burden on women and children. Thus, they now have to take care of food, water, health, fodder and fuel wood for their families. This results in drop out of the children from school, social insecurity to the women and mobility of women towards the market places.



## Interventions taken so far

### Government

The elected representative head of the district under devolution plan; the district Nazim had recommended to the board of revenue for declaration of drought and government has notified the area as calamity hit. However, acknowledging the current problem, the Government of Sindh has approved the distribution of 26 metric tons of wheat for one month on the basis of 1998 census. Where, one family would receive 100 kg of wheat on subsidized rate. The process of distribution has started and would be completed by the end of May 2009 as notified by the Government officials. In addition to this, the Government has also suspended the recovery of land revenue and other government liabilities.

#### ➤ World Food Programme:

The WFP has also distributed relief food package for 16114 households through school children for two times with the intervention of three months from December 2008. The package includes Oil 8kg and wheat 40 kg in the areas of Thar of seven union councils.

S#	U.C	Total school	Boys school	Girls school	Total beneficiaries
1	Kaplore	132	121	11	3620
2	Khokhrapar	140	128	12	3405
3	Fakir Abdullah	53	47	6	1483
4	Kharoro Syed	43	36	7	1569
5	Khejrari	17	13	4	484
6	Chhore	66	51	15	2326
7	Gharibabad	70	55	15	3227
	<b>Total</b>	<b>521</b>	<b>451</b>	<b>70</b>	<b>16114</b>

Source: ADO (E) Male Taluka Umerkot

#### ➤ Recommendation for future Intervention

### Interventions taken so far

Keeping in view the plight situation in coming months though may good rains would be fall in next monsoon but people will harvest in November 2009. Therefore people need assistance till October 2009 and livestock needs till mid August 2009.

## Priority needs

In view of the above scarcity conditions following interventions are considered important in addressing the drought situation in above affected areas of umerkot District:

- **Mapping** of all the key players in the areas and coordinating their activities for maximizing utilization of available resources and minimizing duplication of efforts by the stakeholders.
- **Provision of grains, pulses, vegetable oils and dry ration food** for supplementing the public distribution system and taking care of the gap areas in the nutrition of women, children and the aged. And fodder relief for livestock population for three months from May to July 2009.
- Assisting the **Medical Deptt in disease surveillance, providing mobile medical vans, medicines and equipment.**
- .
- **Capacity building of PRI** representatives for community action towards coping mechanisms against the drought.
- Establishment of fodder, **grain and seed banks** in more vulnerable areas.
- Subsidizing the transportation of drinking water in critical areas.
- Facilitating the **supply of vaccines/medicines for livestock, mobile vans in distant regions.**
- **Assist** in the **conservation** and the **management of water bodies** by providing technical and financial support in the areas.
- Provide better **quality seeds** to farmers in the coming season especially for fodder cultivation.
- Construction of roof top water harvesting structures, anicuts, check dams and other water harvesting structures.
- Rejuvenation of traditional water conservation practices i.e. Tarai, Tobha, Tankas and Par.
- Increase of Dairy cooperatives for value addition and marketing of milk products for increased farm income
- Animal husbandry management and disease coping strategies of milk cattle for better yields.

**SAMI SAMAJ SUJAG SANGAT**

**Check list for drought assessment in desert of district Umerkot**

Date: \_\_\_\_\_

**01) Basic information**

Name of respondent \_\_\_\_\_

Name of Village: \_\_\_\_\_ Deh: \_\_\_\_\_ Union Council: \_\_\_\_\_ Taluka: \_\_\_\_\_

Population: \_\_\_\_\_ House Holds: \_\_\_\_\_

**02) Agricultural information**

Total Land under Cultivation in village: \_\_\_\_\_ acres.

*Crop Sowing & Expected yield during good year.*

Guwar in acres: -----Estimated yield-----Total worth in Rupees: -----

Guwarti: -----Estimated yield-----Total worth in Rupees: -----

Bajra in acres: -----Estimated yield-----Total worth in Rupees: -----

Kana: -----Estimated yield-----Total worth in Rupees: -----Moong in acres: -----

-Estimated yield-----Total worth in Rupees: -----Til in acres: -----Estimated yield-----

-----Total worth in Rupees: -----

Moth in acres: -----Estimated yield-----Total worth in Rupees: -----

Kuriyoon: -----Estimated yield-----Total worth in Rupees: -----

Other livelihood production :( Honey, Gugar, Ghee etc) Total worth in Rupees: -----

Total: \_\_\_\_\_

Comments-----

**03) Migration**

No: of HHs completely migrated (Animal + Family): -----

No: of HHs partially migrated: -----

No: of HHs migrated to towns within Thar: -----

Total population migrated in a year: -----

Mode of migration

No: of people by *Kekra*: -----by Animal: -----by Foot: -----

No: of children dropped out from school due to drought: -----

Any other effect/losses due to migration: -----

Total estimated losses due to migration: -----

Comments -----  
 -----  
 -----

**04) Livestock**

Total No. of livestock in village \_\_\_\_\_  
 No: of livestock migrated from village: \_\_\_\_\_  
 No: of livestock sold on throwaway price: \_\_\_\_\_ Estimated losses \_\_\_\_\_  
 Disruption of reproduction cycle (delayed breeding) Estimated losses \_\_\_\_\_  
 Extra cost on live stock maintenance due to drought Estimated losses \_\_\_\_\_

*Livestock mortality*

Cow: -----	Estimated Losses: -----
Sheep: -----	Estimated Losses: -----
Goats: -----	Estimated Losses: -----
Camel:-----	Estimated Losses: -----
Donkey: -----	Estimated Losses: -----
Any other: -----	Estimated Losses: -----
Total: -----	Estimated Losses: -----

*Total loss in livestock* -----  
 -

Comments -----  
 -----  
 -----

**Diseases.**

Type of disease	No: of people suffered	No: of people died
Diarrhea		
Respiratory		
Malnutrition		
Measles		
Malaria		
Gynecology		
Night blindness		
Other/unknown		
Total		

Comments -----  
 -----  
 -----

**Water**

Impacts on water resources during drought  
 Change in quality-----  
 Change in level-----  
 Any Consequences in drawing & fetching of water and comments-----  
 -----

Impact on gender \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Impact on infrastructure \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Over all Views of villagers about impacts of drought:** \_\_\_\_\_

-----  
-----  
-----  
Received any relief from Govt:/other organizations\_\_\_\_\_

\_\_\_\_\_  
Name of Surveyor

Signature of Surveyor

Annexure 02

**Person contacted during survey**

**Govt: official:**

Mr. Ghulam Akabar Leghari	D-C-O Umerkot
Dr: Captain Muhammad Umer Rind	E-D-O Health Umerkot
DR: Tharo khan leghari	DO Animal Husbandry Umerkot
DR: Tikam Das Malhi	Senior Veterinary Officer Choor
Mr. Ghulam Hussain Mangrio	Assistant Mukhtiarkar Umerkot
Mr. Muhammad Qabal Kunbhar	In charge Metrological station Choor

**Community level**

**Village Dhalo Jo tar**

Muhammad Soomar, shahmir, Arbab, Pir Bux, Muhammad Umar, Qabool, Maqbool, shahabdin, Saleh Muhammad

**Village Rohiraroo**

Rejhu, Ratan, Tejo, Bheru, Pidho, Lakhmir, Lono, Khano, Gulo, Khamiso, Mohan Khemo, Lakho, Gordhin, Chetan, Ms Kali, Ms Wakhti, Ms Tan, Ms Hurmi.

**Village Ramsar**

Jamal-u-ddin, Gordhin, Mitho, Tago, Ukero, Raimal Bhamrio, Taro, Ms Thakri, Ms Indra, Ms Hastu, Ms Lehri, Ms Amri, Ms Samjhu, Ms Amiyan, Ms Kesri, Ms Tari, Ms Gudi and Ms Dahi.

**Village Amrahar**

Roopo, Sarwan, Sabu, Ghamoon, Jabal, Sajan, samerho, Nandal, Suido, Premo, Nihal, Hanju, Panju, Bhago, Sakar, Maru, Ms Teeji, Ms Hurmi, Ms Durangi, Ms Patu, Ms Choni, Makhani, Ms Tulchi, Ms Teeji, Ms Tari and Ms Mano.

**Village Bhitaro**

Tanveer, Hatam, Lono, Dipo, Dowarko, Toto, Aidan, Narian, Kachbo, Nimbo, Pirago, Devraj, Wadhu, Bhudho, Girdhari, Siddique, Gordhan, Ali Khan, Khushal Das.

**Village Parchi jivin**

Yaqoob, Idrees, Obhayo, Mir Muhammad, Jabar, Muhammad Khan

**Village Ganbi jo daro**

Hansraj, Jairamdas, Nathu, Kirshan

**Village Sidamani bheel**

Kanho, Ladho, Dano, Soomar, Nago, Molchand, Kanbo, Badal, Addo, Banu, Punhoon.

**Village Kunbhar bhada**

Arbab, Usman, Saleem. Raidhan, Ahmed Chanhio, Mitho, Siddique, Dado, Rehman, Sako, Minandad, Sardaro and Murad

**Village Viklokar**

Chanessar, Sain Bux Arbab Ali, Ghulam Rasool, Anwar Ali, Hussain, Manjhi, Jumoon, Achar, Soomar, Taboo, Jet Ram, Lekho, Bharmal

### Annexure 03

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