

SINDH

District Badin

HAZARD, LIVELIHOOD AND VULNERABILITY BASELINE
AND CONTINGENCY PLAN



May, 2009



LHDP

FINAL REPORT

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AND VULNERABILITY BASELINE
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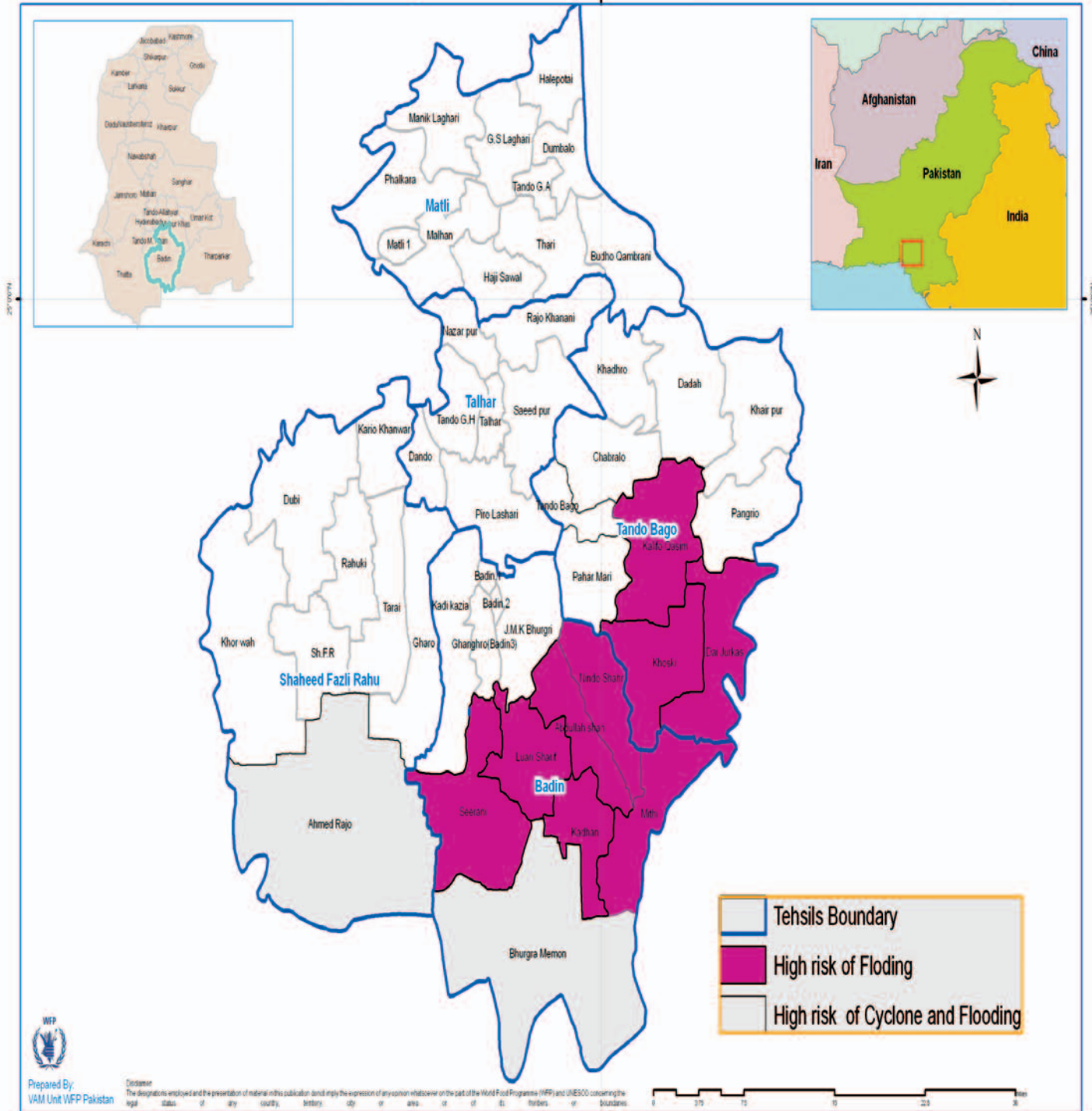
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Hazard Map of District Badin

Map 1.1



PREFACE

In order to assist Badin district government, UN and NGO partners and civil society in responding to the next natural disaster, this Hazard, Livelihood and Vulnerability baseline document has been prepared through a highly participatory and inclusive process involving stakeholders at district, tehsil and community levels. Government, UN and NGO partners have been actively involved in contribution to the document, and for this reason it forms a common assessment of the baseline situation in the District and should be used by all stakeholders as a key planning and preparedness tool.

We would like to thank all those who gave their time and expertise to this process.

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May 2009.

EXECUTIVE SUMMARY

Badin district is prone to natural hazards. The most important and frequent ones are all hydro-meteorological i.e. cyclones; sea water storm surges; localized flooding from heavy rains and drought. In addition, the district is affected by occasional earthquakes. When they occur, these hazards can have devastating effects on the lives and livelihoods of the men, women and children living in the district. The Left Bank Outfall Drain (LBOD) has increased the vulnerability of Badin to cyclones and floods.

Cyclones, heavy rainfall, droughts and floods follow each other often in quick succession. The intervening respite is normally short. Major disasters in recent years include the cyclone in 1964, heavy rainfall in 1973, floods during 1976, 1988 & 1992, torrential rains associated with floods in 1994, the cyclone in 1999, drought in 2000, earthquake in 2001, floods in 2003 and drought in 2004/05.

The consensus is that overall, cyclones and floods have the biggest overall impact on lives and livelihoods in the district. The impact of these hazards is focused on the more southern parts of the district.

Overall, about 99,000 people - concentrated in two Union Councils - are estimated to be at high risk from being affected by *cyclones and flooding* on a regular basis (53, 000 male and 46,500 female). Those highly likely to be affected by *flooding* on a regular basis live in one of 9 additional Union Councils and number roughly 283,000 in total (150,000 male and 133,000 female). The following table gives the details:

UCs and Risk	Population		
	Total	Male	Female
High risk of Cyclone and Flooding			
Bhugra Memon (Badin)	34521	18241	16280
Ahmad Rajo (Golarchi)	31778	17024	14754
Sub-total	66299	35265	31034
High risk of Flooding			
Mithi III (Badin)	32927	17450	15477
Kadhan (Badin)	29415	15703	13712
Seerani (Badin)	33491	17543	15948
Lowari Sharif (Badin)	27206	14198	13008
Abdullah Shah (Badin)	28086	14934	13151
Nindo Shaher (Badin)	31317	16421	14897
Khoski (Tando Bago)	35422	19125	16297
Dai Jarkas (Tando Bago)	33210	17693	15517
Khalifo Kasim (Tando Bago)	31779	16978	14801
Sub-total	282853	150045	132808
Total	349152	185310	163842

Vulnerability of communities for resilience to natural hazards (cyclones/flooding) in Badin district in general and in the eleven high risk Union Councils in particular has increased due to key man-made factors. These include reduced availability of fresh water for agricultural cultivation (Badin being at the tail end of irrigation network), reduced soil fertility, seawater intrusion, and water logging and salinity. Physical vulnerability of communities at large is compounded by weak structure and placement of houses that are less resistant to cyclones and floods particularly in the remote low lying areas. Social vulnerabilities include; absence of land rights and fishing rights, lack of employment opportunities, neglect of coastal agriculture, lack of access to local

productive resources, lack of social development and capacity building and lack of or non availability of social safety nets. All these has reduced the resilience and coping capacity of communities against hazards.

Three main livelihood systems have been identified in at the high risk areas in Badin district: **Fishing livelihoods; Agricultural livelihoods and Urban livelihoods**. The numbers of households involved in these livelihoods is changing over time and there are some overlaps: agriculture, fishing and urban work can all be a part of the same household's portfolio as multiple livelihood strategies are pursued by the household. Nevertheless, for the purposes of the baseline, it makes sense to demarcate areas at risk according to these different ways of making a living.

Fishing communities inhabit the coastal area of UCs Bhugra Memon, Ahmed Rajo, Seerani, Kadhan. Of these, at the high risk of cyclone are the first two UCs. Roughly 15,000 people (about 2,900 households) in these areas purely depend on fishing as their main source of livelihood. Some side stream livelihood strategies of these communities include: cultivation of own small piece of land/share cropping, woodcutting, agriculture labour and off- farm labour. Other people in the areas are engaged in subsistence farming and livestock rearing.

Within the fishing communities, there are clear distinctions between households in terms of asset ownership and wealth. Three main groups can be distinguished: Those with fishing boats/ large nets, those with small fishing nets (Bhan) and those with neither boat nor net (mainly wage labour). Discussions with key informants indicated that of the three groups, the small net owners group is the largest. People and households in this group are not as well-off as the large net owners and boat owners but are better-off than the no net, no boat group. Households in this latter group rely on a combination of wage labour in fishing, sharecropping and other non-farm labour.

The fishing communities are affected by cyclones as well as monsoon floods. They have limited resilience particularly to cyclones which completely destroy their houses, their stocks of food and fodder and damage the fishing assets on which they make their living. The Immediate relief need of the fishing community is a food package during and after the cyclone season. Follow-up relief measures should include support for replanting of rice seedlings¹, repair/replacement of boats/nets so to immediately recover their main source of income², repair of houses and support in meeting their livestock needs.

The farming sector provides a major source of employment and incomes for the people in the district. About 65% of the rural population is engaged in the agriculture and livestock activities as their main source of income. In addition to the two coastal UCs, there are nine other UCs which have been identified as at high risk to monsoon flooding. There are clear distinctions between households in terms of asset ownership, the main distinctions are to be made between large land owners, owner-cultivators, owner-cum-tenants, share-croppers and labourers. The last two categories (share-croppers and labourers) account for more than half of total households and are the most vulnerable to flooding.

For farming communities, May/June and July/August are the critical periods for cyclone and monsoon floods and could damage the standing crop before it reaches harvest. In the case of cyclone in May/June, food aid, cash grants, support for rice seedlings for immediate replantation, support for housing repairs and veterinary support are important. In the case of monsoon flooding there is no chance to replant rice so the focus would be on wheat seed instead of rice, other interventions would be similar to a post cyclone situation.

The third livelihood group corresponds to **urban communities**. About 16% of the total population in the district lives in urban areas. Badin town accounts for about 50% of this population of which

¹ Those fishing communities who also plant rice on their fields, need to replant their rice seedlings immediately after the cyclone is over. Support in provision of seedlings from the neighbouring districts would enable them to transplant rice before the planting season ends.

² Peak fishing season starts from August. Rapid support for repair of boats and nets would be very timely both for boat/net owners and those employed by them as wage laborers.

30 – 40 % of the population lives in slum areas (Katchiabadies) and is very poor. The households in slum areas mainly work as wage labour. Some are involved in petty business (hawkers and transporters) or employed in the government as low grade workers.

The urban poor live in one of the 4 Katchiabadies (slum areas) on the outskirts of the Badin town -Mallah Para; Phul Khan – Ward IV; Haji Hashim Khas Khaili – UC-1 Badin; and Gharib Abad-UC-2 Badin. Most of the migrant minority groups live in these areas, which are mainly located in low lying stream (nallah) areas which are highly prone to flooding. Their houses are the traditional kutcha type (mud walls and straw roofs) which are very vulnerable to flood damage. There are poor/no drinking water/sanitation facilities and during flooding disease outbreaks are common for which an immediate support is needed.

This Livelihood Baseline Report provides response strategies and detailed contingency plans to cyclones and flooding for the most vulnerable livelihood communities living in district Badin. It will help government, UN and NGOs for timely interventions so that to help reduce losses to communities during and after cyclone/flooding periods. This activity responds directly to Priority Area 2 in the District Disaster Risk Management Plan (2007 – 08) which calls for hazard and vulnerability assessment for the district.

1 INTRODUCTION

1.1 The need for a Livelihood Baseline and Contingency Plan

Pre-disaster information is always a vital resource in post disaster response (which includes post disaster assessments). When disaster strikes, it is critical to know how many people are likely to have been affected and how. This requires knowledge of the demographic breakdown of the population and the likely vulnerability of different people to the disaster. Vulnerability will determine how badly they will be affected, how quickly they can be expected to recover and what kinds of assistance they are likely to need. This information can also be used to create *livelihood based contingency plans*, to be used in case of a natural disaster.

Despite its obvious importance, it remains the case that in Pakistan today there is no single universally accepted source which combines information on hazards, vulnerability and livelihoods at district and sub-district level. In recent natural disasters, there have been problems in obtaining rapid and universally accepted and agreed information on which to base responses and post-disaster assessments. These problems were highlighted in the evaluation of the 2007 floods in Balochistan and Sindh³. Whilst there is a great deal of information available from different sources, this is scattered in different offices, at district, provincial and national levels and may not be in a format that facilitates rapid post-disaster decision making. Moreover, some of the information that does exist is old and needs to be updated and / or supported by more recent information to be useful for decision makers.

As well as the information gap, there is also a gap in pre-disaster planning. Most district level contingency plans focus only or mainly on *capacities and procedures* for dealing with disasters. Whilst such information is indeed vital, what is often missing is a detailed knowledge of the likely relief and recovery needs of the population, particularly in terms of recovery of their livelihoods. Combining this livelihood recovery element with existing contingency plans will add an important dimension to the capacity of district authorities to respond to the needs of populations stricken by natural disasters.

This hazard, livelihood and vulnerability (HLV) baseline and contingency plan has been developed to respond to the existing gaps in information and pre-disaster planning. It is intended that henceforth, this document will become a key resource for decision makers in dealing with the next natural disaster in the district.

1.2 What is in this document?

The document consists of a range of information gathered from different sources using different methods. The key elements are as follows:

- *General description* of the district
- *Hazard information*: This shows the history of hazards in the district: the frequency and severity of different hazards and the geographical areas where they strike.
- *Demographic information*: The next element in the baseline is a description of the demographic characteristics of the populations in the areas at risk. This is

³ Preliminary Damage and Needs Assessment, ADB and World Bank, Islamabad, Pakistan, September 2007.

derived from 1998 census data that has been updated to 2008 using techniques agreed with the Bureau of Statistics.

- *Livelihood exposure and vulnerability profiling*: This tool consists of four different elements: (i) Identification and description of different livelihood / wealth groups.
- (ii) Quantification of these groups (iii) Identification of those groups most affected by hazards and why (iv) Identification of those groups most vulnerable to hazards and why
- *Seasonal impact and response calendar*: This shows us what happens to the different activities taking place in an area (village, tehsil, and district) over the year, how these are affected by different hazards and what that implies in terms of intervention types and timing.
- *Response typologies*: This gives likely scenarios in terms of numbers of people likely to be affected by moderate and severe hazards, together with probable livelihood support needs quantified as much as possible.
- *Annexes*: The annexes detail the following:
 1. Description of livelihood and seasonality in canal irrigated (Pacca) zone
 2. Methodology used to compile HLV baseline and contingency plan
 3. Key organizations for livelihood support and recovery
 4. Socio-economic data at District and Tehsil levels
 5. Village and UC level demographic and housing data

2 GENERAL DESCRIPTION OF THE DISTRICT

Badin district is situated between 24°-5` to 25°-25` north latitude and 68° 21 to 69° 20 east longitude. The district is bounded on the north by Hyderabad district, on the east by Mirpurkhas and Tharparker districts, on the south the Arabian Sea and Rann of Kutch, which also forms the international boundary with India and on the west Thatta and Hyderabad districts, bound it. The total area of the district is 6,726 square kilometers and the district consists of five talukas (tehsils), they are Badin, Matli, Tando Bago, Golarchi and Talhar. These talukas have been sub-divided into 46 Union Councils (for details see statistical annex)⁴.

The 1998 population census recorded 1.136 million people in Badin. In 2008, it is estimated that there is a total of 1.421 million, 1.187 million in rural areas and the rest (0.234 million) in urban parts of the district (see Statistical Annex). The largest town is Badin with 0.11 million population.

Badin's economy depends heavily on agriculture (including livestock) with fishing an important occupation in the southern part of the district. With roughly 85 percent of the population of Badin District living in rural areas, agriculture, livestock and fisheries account for high proportions of income, economic output and employment. In terms of agriculture, rice, sugarcane, cotton, wheat and sunflowers are the major crops. Minor crops include onions, chillies, pulses, tomatoes and melons. The available industries are mostly agro-based. According to the District Vision, sugar mills and rice mills form a large part of the district's economy. There are six large sugar mills, about 79 rice husking mills and about 100 flour mills.⁵

In terms of poverty and food insecurity indicators, Badin district is not as poor or as food insecure as many other districts in Sindh, or indeed in Pakistan as a whole. Table 1 gives an indication of the levels of food insecurity and poverty in the district.

⁴ Three UCs have been transferred to the newly formed district of Tando Mohammad Khan. The names of these are: UC Dando, UC Unarki and UC Nazar Pur.

⁵ Source: "District Vision Badin": District Government Badin, Government of Sindh (2006)

Table 1: Food insecurity and poverty indicators for District Badin

Aspect of food security	Classification	National ranking	Provincial ranking
1. Indicator of Availability of food at district level ⁶	Surplus Production (2)	112	16
2. Indicators of Access to food by rural population ⁷	Moderate(3)	101	15
3. Indicators of Absorption of food by the rural population ⁸	Extremely low (3)	29	5
4. Overall food insecurity of the rural population ⁹	Moderately Insecure(4)	97	14
5. Proportion of population below food poverty line ¹⁰	33.9 %	72	14
6. Per capita income	Moderate(2)	100	14

(1)National Rank: 1 – 120. 1 being worst and 120 the best; provincial raking depends on the number of districts. Sindh has a total of 17 districts

(2) Classification: Extreme deficit; High deficit, Low; Sufficient Production; Surplus Production

(3) Classification: Extremely low; Very low; Low; Moderate; High/reasonable

(4) Classification: Extremely insecure; Very insecure; Less insecure, moderately insecure, reasonably insecure

Source: Food Insecurity in Rural Pakistan 2003, WFP-SDPI publication

The above table shows that Badin district ranks as one of the more food secure districts in Sindh province and indeed in Pakistan as a whole. Per capita incomes and proportion of the population below the food poverty line are also moderate. Environmental health and health indicators are relatively poor, resulting in an “extremely low” score for food absorption. Overall, the table implies that the rural population as a whole has more assets and higher access to food than in many other districts, thus making them more resilient to shocks. However, the table masks the fact that there are some very poor populations in Badin district, particularly in the coastal regions which are most exposed to the natural calamities of cyclone and extreme flooding.

⁶ Per capita per day consumption vs production of all food.

⁷ This is a composite indicator derived from: roads (km) per 100km² area; % of marginal cultivators (holding land less than 2.5 acres); landless labour as a % of rural households; adult literacy rate, and; per capita income in each district.

⁸ Another composite indicator of the extent to which food can be biologically absorbed by the body. It is derived from measures of: access to safe drinking water; immunization; infant mortality; availability of rural health infrastructure.

⁹ This is an amalgamation of the composite scores for the indicators of availability, access and absorption

¹⁰ This is the proportion of the population which is estimated who can not consume the standard average calories (Kcal units)

3 AREAS AT RISK: HAZARDS, DEMOGRAPHY AND VULNERABILITY CONTEXT

3.1 Hazard Analysis

Cyclones, heavy rainfall, droughts and floods follow each other often in quick succession. The intervening respite is normally short. Major disasters in recent years include the cyclone in 1964, heavy rainfall in 1973, floods during 1976, 1988 & 1992, torrential rains associated with floods in 1994, the cyclone in 1999, drought in 2000, earthquake in 2001, floods in 2003 and drought in 2004/05. Table 2 gives historical timelines for major disasters in district Badin.

Table 2: Historical Time-line for Natural Hazards in District Badin

Hazard	Year	Season	Geography	Physical damages (% damaged in some way + Score))	Economic and financial losses (% production loss + Score)
Cyclone*	1964	Aug	The whole Badin district under the then district Hyderabad was affected. Affected UCs: Bhugra Memon; Ahmad Raju; Seerani; Mithi III; Khoski	70-80 % houses were completely destroyed.	100% Rice, Cotton and Vegetables was destroyed. Buffaloes: 40% loss All other small ruminants died.
Heavy rains***	1973	July/Aug	All tehsils were affected.	50% houses were damaged.	Livestock: 30% losses 80% Rice and Cotton destroyed.
Monsoon Flood**	1976	July/Aug	UCs affected: Ahamed Rajo; Bhugra Memon; KhorwahTarai; Gharo; Seerani	-	High losses (exact figures not known)
Monsoon Flood**	1988	August	UCs affected: Ahmed Rajo; Bhugra Memon; Seerani	-	High losses (exact figures not known)
Monsoon Floods**	1992	July-August	All of current Galarchi and Matli Tehsils; Half of Badin Tehsil; 10 UCs in Tando Bago were affected and 5 UCs were severely affected: Pangrio; Dehi Jerkes; Dhada; Khalifo Kasim, Khoski	70% houses were damaged Water was standing for 3 months	Losses: 100% rice and cotton, 80% sugarcane. 30-40% Livestock.
Torrential rainfall***	1994	July-August	All Tehsils were affected (relatively less in Tehsil Matli)	20% houses were damaged	Losses: 50% sugarcane, rice and cotton, 100% tomato crop. 50% livestock
Cyclone Followed by 36 hours continuous rains	1999	May	Badin district up to Matli. Most affected UCs: Bhugra Memon; Ahmad Raju; Seerani, Mithi III; Khoski	80% houses were destroyed/damaged All boats and nets were damaged/destroyed.	Losses: 80% of sugarcane, cotton, rice 40% livestock and another 35% livestock died due to diseases.

Hazard	Year	Season	Geography	Physical damages (% damaged in some way + Score))	Economic and financial losses (% production loss + Score)
Earthquake	2001	January	All Badin	Cemented houses and roads were partially damaged. People got traumatized	Minor
Torrential rains/floods***	2003	August	Affected areas. - Badin Tehsil: UCs affected: Seerani; Lowari Sharif; Bhugra Memon; Golarchi Tehsil: UC Ahmad Raju; Tando Bago Tehsil: UCs Khoski; Khalifo Kasim; Dehi Jerkes.	50% Houses were destroyed	Losses: 100% Rice and Cotton 20% S. Cane. 10-15% livestock (died mainly due to diseases).
Drought	2004-05	Two years (no rains)	UCs affected: Khadiaro; Pangrio; Khoski Dhada; Khalifo Kasim; Dehi Jerkes; Khairpur (partial)	-	80% less production of cotton, sugarcane and wheat. 90% less rice production

* Wind speed: 45 KM/hr, continuous rainfall for 24 hours, flood water 4 ft high.

** Floods caused by river overflows and breaches in irrigation channels in upper parts of Pakistan

*** Torrential rains were associated with floods.

One of the important functions of the fieldwork for the compilation of the HLV baseline was to get a consensus from key stakeholders in the district on the frequency, severity and geographical impact of hazards within the district. After detailed consultations at district and Tehsil level, hazards were categorized according to the following criteria:

- Frequency (derived from a hazard historical timeline).
- Seasonality and geography
- Typical damage score: this is the physical destruction to public and private assets caused by the hazard in relation to the area hit by the hazard.
- Typical loss score – this is the impact in terms of economic and financial losses – e.g. crop losses, income losses associated with the hazard in relation to the area hit by the hazard.
- Overall impact score – this is a qualitative measure of the overall impact of the hazard on lives and livelihoods in the district, taking into account all of the previous criteria.

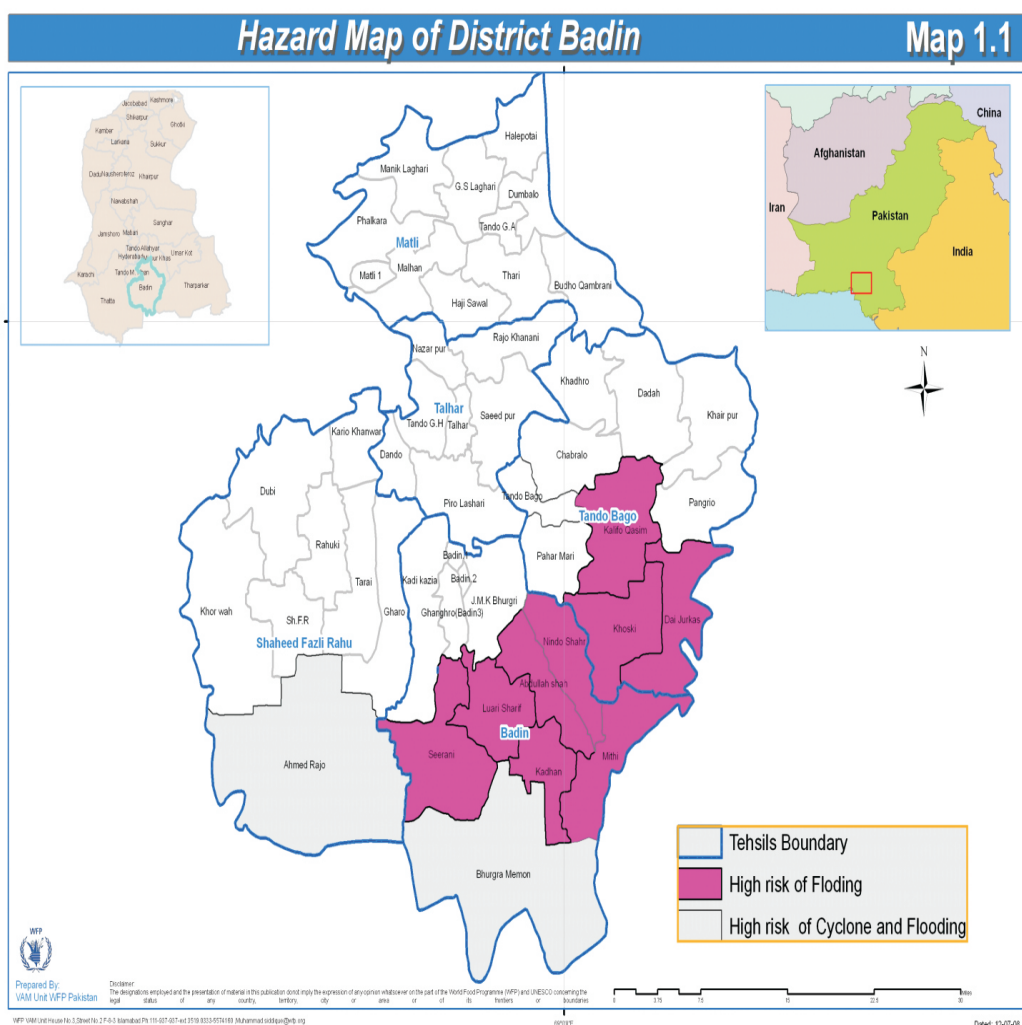
The results of this are presented in Table 3.

Table 3: Hazard matrix in District Badin

Hazard	Frequency	Season	Geography	Total physical damage score	Total economic loss score	Overall impact score
Cyclone	10 years for severe cyclone	May - June	Coastal parts of Badin and Golarchi Tehsils	4	4	8
Monsoon floods	4-5 years	3 weeks after start of monsoon (between June and September)	Parts of Badin and Thando Bago Tehsils	3	3	6
Storm surge (small cyclones)	2-3 years	May – July spring tides	Coastal parts of Badin, and Golarchi Tehsils	2	2	4
Drought	Infrequent	June – September and then continuing	Most areas	-	3	4
Earth-quake	Infrequent, (Since 1970 only 1 – in 2001)	n/a	All Badin	1	1	2

The consensus is that overall, cyclones and floods have the biggest impact on lives and livelihoods in the district. The impact of these hazards is focused on the more southern parts of the district, as indicated in the following map (Figure 1). The gray shaded area (UCs) is identified as being the most prone to cyclones and flooding. The dark (coloured) shaded area is prone to monsoon flooding hazard and some parts may also be affected by cyclones (but less likely) than the gray shaded area. Areas above the coloured part of the district are perceived not very likely to be hit by these hazards¹¹.

¹¹ Exception may be for some villages in southern parts of Seerani and Kadhan UCs), which could be in high risks to both cyclones and flooding. At the time analysis, village-wise hazard data was not available.



3.2 DEMOGRAPHY IN AREAS AT RISK:

Data updated from the 1998 census gives a very good picture of the demographic profile of the populations most at risk. From the map it appears that parts of three out of four tehsils are at risk. Of these three, it is Badin tehsil which is most at risk (approximately 50% of its geographical area). Smaller proportions of the other two Tehsils are prone to cyclone and flooding hazards. Table 4 provides demographic data of the high risk UCs in District Badin.

Table 4: Summary table of populations at high risk from Hazards in District Badin

UCs and Risk	Population		
	Total	Male	Female
High risk of Cyclone and Flooding			
Bhugra Memon (Badin)	34521	18241	16280
Ahmad Rajo (Golarchi)	31778	17024	14754
Sub-total	66299	35265	31034

High risk of Flooding			
Mithi III (Badin)	32927	17450	15477
Kadhan (Badin)	29415	15703	13712
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Lowari Sharif (Badin)	27206	14198	13008
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Khoski (Tando Bago)	35422	19125	16297
Dai Jarkas (Tando Bago)	33210	17693	15517
Khalifo Kasim (Tando Bago)	31779	16978	14801
Sub-total	282853	150045	132808
Total	349152	185310	163842

3.3 LONG TERM TRENDS (VULNERABILITY CONTEXT)

Vulnerability to natural hazards in Badin district in general and in the Union councils listed in the table above in particular is increased due to some external factors and trends. These all revolve around water. The key issues are linked to reduced availability of fresh water for agricultural cultivation due to Badin being at the tail end of irrigation network, reduced soil fertility, seawater intrusion, and water logging and salinity.

Before the construction of various dams and barrages on the river Indus in Sindh and Punjab, the discharge from the river was large enough to push back the sea currents of the Arabian Sea up to 100 miles from the shore¹². With the reduction in freshwater flow, the sea has moved into the discharge channels of the Indus delta. In addition, the reduction in flow of the Indus has reduced the transportation of silt which was a key aspect of soil fertility in the area of the delta including Badin. A further problem is that southern Badin is at the tail end of the command area of the main irrigation systems in the district. This means that when water flow into the system is low, these areas are the first to dry up.

Compounding both of these issues is the fact that a drainage system designed to dispose of saline drainage water into the sea has not worked. The Left Bank Outfall Drain (LBOD) project was intended to reduce the saline water in the soil and drain it back into the sea. The effect of the LBOD has been opposite however due to two main factors. Breaches of the LBOD during heavy rains are leading to water logging along its route and reverse flow of seawater up the LBOD during storms.

Within district Badin, it has been estimated that over 30,000 hectares of agricultural land has been lost due to sea water intrusion. Of this, about 12,500 hectares are in Golarchi Tehsil and about 20,000 hectares are in Badin Tehsil. On top of this, the increasing salinity of soil, reduced freshwater availability has drastically reduced productivity and carrying capacity of non-inundated soil.

The communities and villages that are situated in close proximity to Arabian Sea are frequently subject to storm surges, cyclones and floods. Physical vulnerability of communities at large is compounded by weak structure and placement of houses that are less resistant to cyclones and floods particularly in the remote low lying areas. The

¹² Source: Sikhander Brohi, "Stakeholder Communities and their Livelihoods in the Indus Delta Eco-Region".

less visible but most important set of structural vulnerabilities relate to the way that how ownership of land and other productive resources is distributed among communities and how the available resources are used to cope with any trend, shock and seasonality¹³. Absence of land rights and fishing rights, lack of employment opportunities, neglect of coastal agriculture, lack of access to local productive resources, lack of social development and capacity building and lack of or non availability of safety nets has reduced the social resilience and coping capacity of communities against hazards. It leaves them to opt for repressive loaning system as a survival strategy.

The resilience of the fishing communities along the coastal belt in the district has been tremendously reduced because of regular onsets of floods and cyclone surges in the area. For example, the 1999 Cyclone which was accompanied by heavy rains severely affected the livelihood of the fishermen and farming communities living in the high risks Union Councils in the coastal areas: Bugra Memon and Ahmad Ruaju. A large number of boats and fishing assets were destroyed. Alternative sources of livelihood from agriculture of these fishing communities have been permanently eliminated. The productive agricultural land and irrigation channels which were washed away have still not been recovered. Other areas in tehsil Badin, tehsil Shaheed Fazil Raho (Golarch) and Tehsil Tando Bagho were also affected by 1999 Cyclone. Major devastation was caused by the reversal of water flows in the Left Bank Outfall Drain (LBOD). The LBOD ruptured in several places on both embankments simultaneously and caused floods (about 3,000 cusecs of floodwater was recorded).

¹³ REPORT Asian Development Bank Project Preparatory Technical Assistance No TA 4525 – PAK Sindh Coastal and Inland Community Development Project.

4 LIVELIHOOD, VULNERABILITY AND RESPONSE OPTIONS

Three main livelihood systems have been identified in at-risk areas in Badin district: Fishing livelihoods; Agricultural livelihoods and urban livelihoods. The numbers of households involved in these livelihoods is changing over time and there are some overlaps: agriculture, fishing and urban work can all be a part of the same household's portfolio as multiple livelihood strategies are pursued by the household. Nevertheless, for the purposes of the baseline, it makes sense to demarcate areas at risk according to these different ways of making a living.

In each of the high risk UCs, livelihood groups were identified, and the proportion of poor and vulnerable population were determined via consultation process in the district. Livelihood based contingency plans were prepared for the most likely scenario based on the identification of population numbers in each area(UC) that are likely to be at a high risk to flooding and/or cyclone.

The response strategy and the contingency plan included in this report for the district has been prepared using a combination of information vis-à-vis (a) information on seasonal calendar and impact analysis; (b) the response strategy sequencing of interventions; and (c) knowledge of population numbers, especially the size of poor and vulnerable groups that are most likely to be affected by the hazard. These population numbers have been derived through the identification of high risk areas (Union Councils) that are most likely to be affected by flooding and/or cyclone, the projection of population numbers/households and the proportion of poor and vulnerable livelihood groups in those areas/zones.

The indicative quantifications of likely responses in the contingency plan and the costing have been done through consultations with relevant technical experts and have been endorsed by District Government.

4.1 FISHING BASED LIVELIHOOD SYSTEMS

4.1.1 Introduction and general characteristics

Fishing communities inhabit the coastal area of UCs Bhugra Memon, Ahmed Rajo, Seerani, and Kadhan. Of these, at the high risk of cyclone are the first two UCs. Roughly 15,000 people (about 2900 households) in these areas purely depend on fishing as their main source of livelihood¹⁴. Some side stream livelihood strategies of these communities include: cultivation of own small piece of land/share cropping, woodcutting, agriculture labour and off- farm labour. Other people in the areas are engaged in subsistence farming and livestock rearing.

Within the fishing community, a small proportion (about 15%) own small boats and/or large nets (called Boolo ruchh) for fishing in shallow sea water, about 60% use small nets (called Bhan) for fishing in lakes and streams and about 25% work as wage labour in fishing and/or other sectors within and outside Badin.

The number of families involved in fishing and the importance of fishing to livelihoods in the areas at risk has increased significantly over the years basically due to the

¹⁴ Source: Data from Fishing Folk Forum, District Badin

increased sea intrusion. Table 5 shows how much productive land has been lost to sea water intrusion in Badin and Golarchi Tehsils:

Table 5: Losses of agricultural land to seawater in District Badin

Tehsil	Area (ha) cropped 2004 – 05	Lost to seawater	Total	Lost as a % of total
Badin	69,616	19,903	89,519	22.2
Golarchi	79,899	12,394	89,293	13.9
Total	146,515	32,297	178,812	18.1

Source: Development Statistics of Sindh and ANZDEC estimates - Annex 7 DRAFT REPORT Asian Development Bank Project Preparatory Technical Assistance No TA 4525 – PAK Sindh Coastal and Inland Community Development Project.

These changes forced the agricultural communities to shift their livelihoods to fisheries. A majority of the communities who were previously engaged in agriculture and livestock rearing in the coastal regions have shifted their livelihoods towards the fisheries sector, resulting in greater pressure on this sector as source of livelihood in the coastal areas of Sindh. Similarly, traditional merchant clans in the coastal areas dealing with the purchase and sale as well as export of agricultural produce have also converted their livelihoods to the fisheries sector.

4.1.2 Livelihood Groups, Vulnerability and Poverty

Within the fishing communities, there are clear distinctions between households in terms of asset ownership and wealth. Three main groups can be distinguished: Those with fishing boats/ large nets, those with small fishing nets (Bhan) and those with neither boat nor net (mainly wage labour). Discussions with key informants indicated that of the three groups, the small net owners group is the largest. People and households in this group are not as well-off as the large net owners and boat owners but are better-off than the no net, no boat group. Households in this latter group rely on a combination of wage labour in fishing, sharecropping and other non-farm labour.

Table 6 gives a breakdown of the three main groups and their proportions across the areas at risk among the fishing communities. Total population of the 2 UCs (Bhugra Memon in Badin Tehsil and Ahmad Raju in Golarchi Tehsil) is estimated to be 66,299. The population directly involved in fishing in these two UCs is around 15000 (about 2,900 households) which are about 22 percent of the total population.

Table 6: Livelihood groups and poverty in fishing-based livelihood systems (22% of total HH in two UCs)

Livelihood group	Characteristics	Wealth and vulnerability status	Proportion in overall population
Boat owners/ large net owners (225 boat and 200 net owners)	<ul style="list-style-type: none"> Hire 2-3 labourers for fishing. 5% of the HH own livestock 2% HH own/cultivate land (16-20 acres farm size, about 3 acres cultivated). Motorbike 1 – 2 pick-ups in the whole area. 	Better off	15%
Small net owners (Bhan)	<ul style="list-style-type: none"> 2-3 Bhans / HH on average Wage labour (agriculture) and some wood cutting. 10% HH own livestock 10% HH own and cultivate land (partly cultivated) Motor bike with almost every HH. Do some migrant labour in off season (10%); go to Golarchi for rice harvesting. 	Medium	60%
No net, no boat (Mari)	<ul style="list-style-type: none"> Daily wage labour for fishing (hired by boat owners) Labour in cities (during off season) 5% HH keep small livestock Wood cutter/charcoal labour 	Poor	25%

4.1.3 Seasonality

The following figure shows the seasonal calendar of activities within the fishing based livelihood areas and villages. It can be seen that there are two main types of activities: fishing related and agricultural related.

Figure 2: Seasonal calendar for various activities for fishing communities

Activities	M*	J	J	A	S	O	N	D	J	F	M	A
Fishing for fish	M	M	M	H	H	H	M	M	L	L	L	M
Prawn fishing	L	B	B	H	H	H	M	M				L
Planting rice labour (for cash)	X	X	X									
Rice harvest labour (in kind/food)						X						
Wheat harvest (for grain)												X

L = Low; M = Medium; H = High; B = Ban

* The calendar has been started from May to align the seasonal activities and hazards

 Cyclone season  Monsoon flood season

4.2 AGRICULTURE BASED LIVELIHOOD SYSTEMS

4.2.1 Introduction

Whilst the farming sector provides a major source of employment for the people in District Badin, land ownership is very skewed. There are either large cultivators/absentee landlords or very small cultivators (mainly small owners-cum-tenants and sharecroppers) or labourers. For most of the population most agriculturally related income comes from labour on other people's farms, which easily outweighs income from crop sales¹⁵.

4.2.2 Livelihood Groups, Vulnerability and Poverty

As for fishing communities, there are clear distinctions between households in terms of asset ownership and wealth. The main distinctions are to be made between large land owners, owner-cultivators, owner-cum-tenants, share-croppers and labourers:

The following table gives a breakdown of the five main groups and their proportions across the areas at risk (high and medium risk Union Councils).

Table 7: Livelihood Groups in Farming-based livelihood system.

Livelihood group	Characteristics	Wealth and vulnerability status	Proportion in overall population
Large land owners	<ul style="list-style-type: none"> • 15 acre and above • Keep tenants (Harpo) for farming • Buffaloes: 10-15 (also on share) • Sheep/goat 30-35 	Rich	1%
Owner cultivators	<ul style="list-style-type: none"> • Cultivate 5-15 acres of own land • 4-5 number of livestock (1 cattle and rest small ruminants (including on share basis) 	Upper-Middle	15%
Owner-cum-Tenant	<ul style="list-style-type: none"> • 1-5 acres of land owned + share cropped in • Only 2-3 number of small ruminants Cattle owned by only 2% of HH • Own cultivable land only 1-2 acres 	Middle	30%
Share-croppers (Harpo)	<ul style="list-style-type: none"> • 1-5 acres of land sharecropped in • 3-5 number of small ruminants Cattle on share basis (1/4th share) • Wage labour (include women) • Zakat/charity 	Poor	50%
Pure wage Labour in agriculture	<ul style="list-style-type: none"> • Harvesting in the village and surrounding villages (Rice, wheat, sugarcane, cotton picking etc.) • Zakat/charity • Sugar mills • Seasonal migration to Karachi Hyderabad 	Poor	4%

¹⁵ Socio-economic study and proposal for livelihood improvements: Badin and Thatta districts, Sindh, Pakistan (World Bank: April 2005).

4.2.3 Seasonality

Intensive farming is practiced on agricultural land and many different crops are grown. Major crops are rice, sugarcane, cotton and wheat. Some vegetables like chilies, tomatoes and onions are also grown. More recently sunflower has been introduced as a cash crop in the area which allows the farmers to reap three crops in a year. For villages where farming is important, Figure 3 below shows which activities predominate. May/June and July/August are the critical periods for cyclone and monsoon floods which could damage the standing crops before reaching harvest.

Figure 3: Seasonal calendar for various activities for Farming community

Activities	M	J	J	A	S	O	N	D	J	F	M	A
On farm activities												
Rice	P	P	S	S	S	H	H					
Sugarcane	S	S	S	H1	P1 H1	H1	H1	H1	H2	H2 P2	H2	
Cotton	P	S	S	S	H	H	H	H				P
Wheat						P	P				H	H
Chilies					H	H	H			P	P	
Water melon					P2	P2		H2	P1			H 1
Onion					P	P			H	H		
Oil seed					P			H	H			
Fodder (Guara)						P			H			
Sunflower	S2	H2	P3	S3	H3				P1		H1	P2
Tomatoes	S	H1			P2			H2				P1
Agriculture labour Opportunities												
Wage labour for rice planting (cash)	X	X	X									
Wage labour for rice harvesting (Kind)						X	X	X				
Cotton Picking (women labour for cash)				X	X	X						
Wage labour for wheat harvesting (kind)											X	X
Wage labour for tomato planting (cash)					X							X
Wage labour for tomato harvest (cash)		X						X				
Wage labour for sunflower planting (cash)			X						X			X
Wage labour for sun flower harvest (cash)		X			X						X	
Off-farm labour opportunities												
Wood cutting and Charcoal	L	L	L	L	L	L	H	H	H	M	M	L
Urban labour	L	L	L	L	L	H	H	H	H	H	M	M

P = Planting; H = Harvesting; P1/P2/P3 = First, second and third planting period during the year; H1/H2/H3 = First, second and third harvesting period during the year; L = Low; M = Medium; H = High; S = Standing crop.

 Cyclone season  Monsoon flooding season

4.3 LIVELIHOOD GROUPS AND POVERTY OF URBAN COMMUNITIES

4.3.1 Introduction

Of the total population of Badin district, it is estimated that 16% (234,000) live in urban areas¹⁶. Badin town accounts for about 50% of this population (equal to 110,000). Badin town has a large trading centre where, according to key informants about 25% of urban population is concentrated. This portion of the population is perceived as being relatively well-off. Moving away from the town centre, incomes and wealth fall as shopkeepers and property owners are replaced by higher concentrations of families relying on skilled labour and daily wage labour. These live in suburb area About 40% of the Badin Town population lives in suburb areas. These include low grade Government employees and other private service workers (about 30%), who come under middle class category; and Gujars (Milk Men) (about 10%), who keep herds of 5-20 Buffaloes/cows to sell milk in the town. However, close to the Badin suburb area there are slum areas where the remaining about 35% of the population lives. These are said to be poor or very poor.

The following table provides a breakdown of the three Badin Town groups.

Table 8: Urban livelihood groups and Poverty

Livelihood group	Characteristics	Wealth and vulnerability status	Proportion in overall population
Households in urban centre	<ul style="list-style-type: none"> • Business/shop/property owners • Government employees • Private employees • Transporters • Skilled labour 	Better –off and Well off	25%
Households in suburb area (excluding Kachiabadies)	<ul style="list-style-type: none"> • Govt. employees (10%) • Private employees (20%) Skilled labour (30%) • Gujars (10%) • Petty business (10%) • Wage labour (10%) 	Medium	30-40%
Households in Katchiabadies (slum area)	<ul style="list-style-type: none"> • Wage labour • Hawkers/vendors • Private service • Government service • Skilled labour • Charity 	Poor and very poor	30-40%

¹⁶ This is an estimate derived from updating the figures in the 1998 population census.

4.3.2 The urban poor

The urban poor live in 4 Katchiabadies (slum areas) on the outskirts of the town¹⁷, which are mainly located in low lying stream (nallah) areas and are highly prone to flooding. Most of the migrant minority groups live in these areas. Their houses are the traditional *Katcha* type (mud walls and straw roofs) which are very vulnerable to flood damage. There are poor/no drinking water/sanitation facilities and during flooding disease outbreaks are common.

The following table gives a more detailed breakdown of the main occupations of those within the Katchiabadies. About 60 to 80% of households are poor or very poor; and make a living through activities including skilled employment, casual employment, hawking, vending and for the most unfortunate, begging. They are the highly vulnerable groups because at time of floods both their homes and their incomes can be seriously affected and they have no or few assets to fall back on.

Table 9: Urban poor livelihood types

Main sources of income in Katchiabadies (slums)	Characteristics	Status	Proportion
Shopkeepers	• Few assets	Slightly above poor	1 – 2%
Govt employees	• Few assets		2 – 5%
Service in Private sector	• Few assets		20 – 25%
Cart owners	• Own a donkey; no other assets	Poor	2- 5%
Hawkers	• Own a manual cart; no other assets		5 – 10%
Skilled Labour (including women labour involved in sewing, house mats etc.	• Assets are “Tools of the trade” e.g. machines		10 – 15%
Unskilled part-time wage labour	• no other assets	Very Poor	45 – 50%
Charity	• Begging		2 – 5%

4.3.3 Seasonality

One of the characteristics of the poor and very poor group is that there is a lot of variation in income during the course of the year, as depicted in Figure 4.

Figure 4: Seasonality of income sources for the poor

Activities	M	J	J	A	S	O	N	D	J	F	M	A
Daily wage labour work on a variety of manual tasks (e.g., loading, construction)	L	VL	VL	VL	L	L	M	M	H	H	M	M
Cart owners	L	L	VL	VL	L	M	M	H	H	H	H	M
Hawkers	L	L	VL	VL	L	M	M	H	H	H	H	H
Beggars	M	M	M	M	M	H	H	H	H	H	H	H

 Cyclone season  Monsoon flooding season

¹⁷ Namely (i) Mallah Para (ii) Phul Khan – Ward IV (iii) Haji Hashim Khas Khaili – UC-1 Badin (iv) Gharib Abad-UC-2 Badin.

5 RESPONDING TO DISASTERS: COMMUNITIES AND EXTERNAL ASSISTANCE

5.1 EXTERNAL SUPPORT FOR EXCEPTIONAL EVENTS

When very large scale hazards hit the district, risk reduction measures and community coping strategies will not be sufficient to avert large scale damage to lives and livelihoods (although they may be able to reduce the severity of impact). In these situations, external support from the government and other external actors is required. These actors include local and international NGOs, UN agencies, international aid donors, the private sector and philanthropic private individuals and foundations.

In order to facilitate these responses, livelihood based contingency plans have been developed for cyclones and severe monsoon flooding. A number of steps have been taken to ensure that these plans are constructed on the basis of plausible assumptions and, crucially, that they are understood and endorsed by local government and NGOs operating in the district.

The **technical steps** to achieve this are as follows:

1. A hazard impact calendar has been constructed for each hazard. This shows when the hazard strikes in relation to the livelihood activities taking place at the time. From this, it is possible to pick out appropriate type and timing of response activities to support livelihoods.
2. This information is then “mapped” onto the demographic information contained in table 4 above, and is adjusted according to an estimate of likely vulnerability of the population subject to the hazard using information contained in the wealth / livelihood categorization tables. This is done because for a given severity of event, whilst many people will be affected, those with less assets and incomes will be in greater need of assistance.
3. The amount and cost of material assistance likely to be necessary to restore livelihoods is then calculated in a spreadsheet using current prices (this can be updated as necessary), and an estimate of overall quantities and costs is given. This then serves as a hazard contingency plan for the district and can inform budgetary allocations and / or stockpiling decisions and also can guide initial planning and budgeting estimates after a hazard has struck.

In order to gain **endorsement of Badin district government and local NGOs**, the following steps have been taken:

1. The hazard impact calendar and types and timing of responses are developed in full consultation with the tehsil and district level government officials and NGOs.
2. Costs and amounts of material assistance are validated with these stakeholders.
3. The overall contingency plan is then discussed with district level officials and validated by them.

The following sections thus represent the output of a transparent and technically sound process of consultation with key stakeholders in the district.

5.2 RESPONSE TO CYCLONE

5.2.1 Response Strategy to Cyclone for Fishing based Livelihood

Fishing communities have limited resilience particularly to cyclones which may completely destroy their houses, their stocks of food and fodder and damage the fishing assets on which they make their living. The immediate relief need of the fishing community is a food package during and after the cyclone season. Follow-up measures should include support repair of houses (Katcha and semi-Katcha), repair/replacement of boats/nets so to immediately recover main source of income, and support in meeting livestock needs. From a livelihood perspective, repair and replacement of boats and nets is the highest priority as the peak fishing season starts from August and support for rapid repair of boats and nets would be very timely both for boat/net owners as well as those employed by them as wage laborers.

The following figure provides response intervention and their sequencing for fishing communities in district Badin. Summary of contingency plan is given in table 10 (with detail in Annex 1).

Figure 5: Response strategy and sequence of interventions for fishing communities after Cyclone in Bhugra Memon and Ahmed Rajo UCs of district Badin

Support activities	M	J	J	A	S	O	N	D	J	F	M	A
1. Food support		1	1									
2. Support for repairing/construction of houses			2	2								
3. Support for small nets (Bhan)			3	3								
4. Support for repairing/replacement of large boats/nets			4	4								
5. Support for livestock nutrition (feed)		6	5	5								
6. Veterinary support			6	6								
7. Restocking of small ruminants					7	7						
8. Restocking of poultry					8	8						

 Cyclone Season

Sequence of Response:

1. Food relief as soon as possible *at time of/after cyclone/flooding*. (To compensate for damaged food stores): during and after cyclone (*for at least 1 month*): *June-July*
2. Support for repair/construction of housing – preferably cash, but also materials, where suitable and acceptable material exists: *July/August*
3. Support small (Bhan) nets (cash, material): before the high fishing season: *August*.
4. Support for repairing / replacing boats and nets (cash, material/equipment, vouchers, and or subsidised loans. Food for work for labourer in building of big vessels): July before the peak fishing season: *July/August*.

5. Livestock feed in kind for 3 goats, soon after cyclone is over , Livestock Depot/NGOs/FAO: July - August
6. Veterinary care – In-kind/direct veterinary provision and service especially for vaccination: *July – August*.
7. Support to livestock restocking. NB many difficulties with inappropriate livestock restocking. Cash may be better to get markets going again: *September/October*.
8. Restocking of poultry (especially to support women): *September/October*

Table 10: Livelihood based Contingency plan for Fishing Communities after Cyclone

Type of response	Number of affected Ucs	Number of affected HH	Proportion of HH in need of support (%)	Period/ Duration of Intervention	Estimated Cost (million of USD)
1. Food Support (100% hh) a month package	2	2,900	100	July or Aug	0.17
2a. Support for 50% repairing of Houses	2	1,450	50	July or Aug	-
2b. Support for 50% construction of Houses	2	1,450	50	July or Aug	-
3. Support for Small Fishing Nets (Bhan) 60% hh	2	1,740	60	July or Aug	0.13
4a. Support for repairing 50% Nets & Boats (7% hh)	2	203	7	July or Aug	0.05
4b. Support for replacement of 50% Nets & Boats (7% hh)	2	203	7	July or Aug	0.25
5. Livestock Feed (50% hh) 0.5 Kg/goat for 3 goats/hh for a month		1,450	50	do	0.016
6. Veterinary Support for 3 animals/hh (50 % hh)	2	1,450	50	do	0.002
7. Restocking of small ruminants 2 goat/hh (20% hh)	2	580	20	Sept - Oct	0.07
8. Restocking of poultry 6 chick/hh (85% hh)	2	2,465	85	Sept-Oct	0.02
TOTAL million USD					0.71


5.2.2 Cyclone Response Strategies for Farming Community

Farming communities in the cyclone affected areas grow mainly rice and some sugarcane. Rice crop is severely damaged due to cyclone. Sugarcane crop still survives after cyclone but its yield is affected due to lodging. The livestock owned by these communities require immediate nutrition and veterinary support. Cyclones also damage Katcha and semi-Katcha houses that are about 30% and 68% respectively of the total houses in the coastal areas.

The following figure lists response interventions and their sequencing for farming based communities in UCs likely to be affected by Cyclone. Summary of contingency plan is given in Table 11 (with details in Annex 1).

Figure 6: Response interventions and their sequencing for farming based livelihoods after Cyclone in district Badin.

Support activities	M	J	J	A	S	O	N	D	J	F	M	A
1. Food support	1	1										
2. Support for rice seed	2	2										
3. Support for repairing houses			3	3								
4. Support for livestock nutrition (feed)		4	4									
5. Veterinary support		5	5	5	5							
6. Restocking of small ruminants					6	6						
7. Poultry Restocking					7	7						
8. Kitchen Gardening					8	8						

 Cyclone season

Sequence of response interventions to farming communities in UCs hit by cyclones:

1. Food Support (Government/WFP/INGOs), during cyclone for at least one month: *May or June*
2. Support for rice seed (FAO/Government/INGOs/Bilateral Donors), immediately after cyclone is over so that replanting of the rice is done by the affected communities: *May/June*
3. Support for repairing of houses (Government/UN Habitat/INGOs): *July – August*
4. Support for Livestock nutrition (feed) soon after the cyclone is over (Livestock Department/FAO/INGOs): *July to September*
5. Livestock veterinary support soon after the cyclone is over (Livestock Department/FAO/INGOs): *July to September*
6. Restocking for small ruminants after the cyclone is over (Livestock Department/FAO/INGOs): *September – September-October*
7. Poultry Restocking (especially to support women) after the cyclone is over (Livestock Department/FAO/INGOs): *September – September-October*
8. Kitchen Gardening Support (especially to support women) after the cyclone is over (Agriculture Department/FAO/INGOs): *September – September-October*

Table 11: Livelihood based contingency plan for farming Communities after a cyclone.

Type of response	Number of affected Ucs	Number of affected HH	Proportion of HH in need of support (%)	Period/ Duration of Intervention	Estimated Cost (million of USD)
1. Food Support (100% hh) a month package	2	9,609	100	May or June	0.58
2. Support for rice seed (50% hh) for an acre	2	4,805	50	July - August	0.11
3a. Support for 70% repairing of houses	2	6,726	70	July - August	-
3b. Support for 30% construction of houses	2	2,883	30	July - August	-
4. Livestock Feed (50% hh) 0.5Kg/goat for 3 goats/hh	2	4,805	50	July - August	0.05
5. Veterinary Support 1 cow & 3 goats/HH (96% hh)	2	9,225	96	do	0.01
6. Restocking of small ruminants (2 goat/hh) (50% hh)	2	4,805	50	Sept - Oct	0.30
7. Poultry Restocking (6 chicks + feed to 54% hh)	2	5,189	54	Sept - Oct	0.04
8. Kitchen Gardening Support -50% hh	2	4,805	50	do	0.05
TOTAL million USD					1.13


5.3 RESPONSE TO MONSOON FLOODING

5.3.1 Monsoon flooding: Response Strategy for Fishing Community

Monsoon flooding happens slightly later (July/August) in the year than the cyclone season, and this has some implications for the responses. There will be little or no damage to boats and nets, so no need for boat and net repair and Katcha houses (30% of total houses) may be damaged due flooding. The main interventions are aimed at rebuilding housing and protecting and re-stocking livestock. Kitchen gardening and rice production should also be supported (see below).

Figure 7: Response calendar for post-monsoon flooding: Fishing communities in high risk UCs in District Badin

Support activities	M	J	J	A	S	O	N	D	J	F	M	A
1. Food support			1	1								
2. Support for repairing houses					2	2						
3. Livestock feed				3	3							
4. Veterinary support				4	4	4						
5. Restocking of small ruminants					5	5						
6. Restocking of poultry					6	6						

 Monsoon flooding season

Sequence of response interventions

1. Food Support (Government/WFP/INGOs) during flooding period for at least one month: *July or Aug*
2. Support for repairing of houses (Katcha houses which are 30% of total Houses) (Government/UN Habitat/INGOs): *Sept - October*
3. Livestock feed for a month (Livestock Department/FAO/INGOs): *Aug/September*
4. Veterinary support (Livestock Department/FAO/INGOs): *Aug to October*
5. Restocking for small ruminants (Livestock Department/ FAO/INGOs): *Sept to October*
6. Restocking of Poultry (especially for women support) (Livestock Department/ FAO/INGOs): *Sept to October*

Table 12: Livelihood based Contingency plan for Fishing Communities after heavy monsoon flooding

Type of response	Number of affected Ucs	Number of affected HH	Proportion of HH in need of support (%)	Period/ Duration of Intervention	Estimated Cost (million of USD)
1. Food Support (100% hh)	2	2,900	100	May or June	0.17
2. Support for 30% repairing of houses	2	870	30	July or Aug	-
3. Livestock Feed (50% hh)	2	1,450	50	Sept	0.02
4. Veterinary Support 3 goats/HH (96% hh)	2	2,784	96	Sept	0.00
5. Restocking of small ruminants (2 goat/hh) (50% hh)	2	1,450	50	Sept or Oct	0.09
6. Poultry Restocking (6 chicks + feed to 54% hh)	2	1,450	54	Oct	0.01
TOTAL million USD					0.30

5.3.2 Response Strategy to heavy monsoon flooding for farming community

The post-flooding response strategy is shown in the following table. As was the case with the fishing community, there are some differences between post cyclone and post flooding responses. Flooding affects a large number of UCs (see Hazard Map) and damages the standing crops of rice, cotton, sunflower, sugarcane, and summer vegetables. These crops can not be replanted during the current season and therefore farmers have to miss income from these crops for the year. Wage labourers will also lose harvesting wage labour opportunity. Any support for these affected crops has to be for the next year.


For an immediate support, it is recommended that a focus should be on the forthcoming Rabi season soon after the flooding season is over. This could be the best response option because it will help the farming community to timely plant at least their winter season crops such as wheat and sunflower. Rabi season vegetable package (kitchen gardening) and poultry restocking to support women would also be helpful.

Figure 8 lists response interventions in the flood affected high risk UCs (based on the hazard map). Summary of contingency plan is provided in Table 13 (with detail is Annex 1)¹⁸.

¹⁸ Separate monsoon flooding response for farming of fishing based communities in the two coastal UCs (Bhugra Memon and Ahmad Rajo) that are affected by cyclone as well as monsoon flooding has been prepared (see section 5.3.1).

Figure 8: Response intervention and their sequencing for farming based livelihoods in District Badin after flooding.

Activities/coping with cyclone	M	J	J	A	S	O	N	D	J	F	M	A
1. Food support				1	1							
2. Support for repairing houses				2	2							
3. Support for Livestock nutrition (feed)				3	3							
4. Support for Livestock veterinary care				4	4							
5. Restocking of small ruminants					5	5						
6. Support for Wheat crop seed and fertilizer						6						
7. Support for winter vegetable seed (Package for kitchen gardening)						7						
8. Seed for sunflower and fertilizer								8				
9. Poultry restocking						9						

Monsoon flooding season: 

Sequence of response interventions to farming livelihoods after floods
(Based on seasonal calendar analysis)

1. Food relief as soon as possible at time of/after floods for minimum of one month: *Aug/Sept*
2. Support for repairing of housing – preferably cash, but also materials, where suitable and acceptable: *August – September*
3. Support to livestock for nutrition care (feed) immediately after floods: *-August September.*
4. Support to livestock for veterinary care immediately after floods: *-August September*
5. Support of restocking of small ruminants: *September - October*
6. Wheat seed (and fertiliser) for the onset of the winter planting season: *October*
7. Seed for winter vegetable -for planting season: *October*
8. Seed for sunflower - for planting season: *December.*
9. Poultry restocking (especially for women support) - *October*

Table 13: Livelihood based contingency plan for farming Communities after flood.*

Type of response	Number of affected Ucs	Number of affected HH	Proportion of HH in need of support (%)	Period/ Duration of Intervention	Estimated Cost (million of USD)
1. Food Support for a month(100% hh)	11	62,978	100	Aug or Sept	3.78
2. Support for repairing of 50% houses	11	31,489	50	Aug or Sept	-
3. Livestock Feed (5 Kg / Cow for 2 cows for a month) (50% hh)	11	31,489	50	Aug or Sept	2.36
4. Veterinary Support (5 animals/hh for 50% hh)	11	31,489	50	Aug or Sept	0.06
5. Restocking of small ruminants (50% hh)	11	31,489	50	Sept or Oct	2.20
6(a) Wheat Seed support (for 8 Kanals) (50% hh)	11	31,489	50	Sept or Oct	0.94
6(b) Fertilizer support (Urea)	11	31,489	50	Sept or Oct	1.57
6(c) Fertilizer support (DAP)	11	31,489	50	Sept or Oct	1.57
7. Support for Winter Vegetable seed (50% hh)	11	31,489	50	Oct	0.31
8(a) Seed for Sunflower (2 Kanals) (50% hh)	11	31,489	50	Dec	0.31
8(b) Fertilizer (Urea)	11	31,489	50	do	0.16
8(c) Fertilizer (DAP)	11	31,489	50	do	0.31
9. Poultry Restocking plus feed package (6 chicks - 50%hh)	11	31,489	50	October	0.28
Total (million USD)					13.89

* Total Ucs monsoon flood affected UCs 11 (see Table 4 above). This also includes the two coastal UCs. The 2900 are fishing households have been excluded from the total number of households

5.3.3 Response Strategy to Monsoon Flooding for Urban Community

The urban Katchiabadies close to Badin town mainly face the hazard of flooding during the monsoon season. These Katchiabadies are low lying, marginal lands and therefore receive heavy losses. Their mostly Katcha houses are damaged and their food stocks/other household utensils are destroyed. The flood/rain water stays for a longer period of time which brings water and sanitation problems and exposes inhabitants to various kinds of diseases. Timely response interventions are needed to support them in the provision of food, shelter and distress grants to hawkers and skilled/unskilled laborers to restart their livelihood income sources.

the provision of food, shelter and distress grants to hawkers and skilled/unskilled laborers to restart their livelihood income sources.

Figure 9: Response interventions for urban Katchiabadies communities after flooding in district Badin

Type of support	M	J	J	A	S	O	N	D	J	F	M	A
1. Food support				1								
2. Cash for distress grant				2								
3. Pumping out of flood water				3								
4. Support for repair of houses					4	4						
5. Revival of livelihoods of skilled labour, cart owners, hawkers etc.)					5	5						
6. Veterinary support to buffaloes/cows in suburb areas				6	6	6						

 Monsoon flooding season

Note: The number show sequence of response intervention and timing

Sequence of response:

1. Food relief – immediately during and after flood (August)
2. Loan for distress cash (August/September)
3. Pumping out flood water (August/September)
4. Repair of houses (September/October)
5. Revival of livelihoods of skilled labour, cart owners, vendors etc. (Repair of carts and capital for business (hawkers and cart owners) (September)
6. Veterinary support to Livestock (Buffaloes owned by Gujars living in suburb areas): Aug to October

Table 14: Livelihood based contingency plan for Urban Communities after flood.

Type of response	Number of affected Ucs	Number of affected HH (all Kachiabadi & 10% suburb)	Proportion of HH in need of support (%)	Period/ Duration of Intervention	Estimated Cost (million of USD)
1. Food Support for a month	All hh in Katchiabadi and 10% in Suburb area	8,094	52	Aug	0.49
2. Distress Cash Grants (Eqvi. To one month wage)	75% in Katchiabadi es & 10% of suburb area	6,278	40	Aug or Sept	0.38
Support for Pumping out of water	All katchiabadi	7,264	47	Aug or Sept	-
3. Support for repairing houses	Katchiabadi (50% hh)	3,632	23	Sept or Oct	-
4. Support for construction of houses	Katchiabadi (20% hh)	1,453	9	Sept or Oct	-
5. Support for equipment/tools for skilled labour	Katchiabadi (15% hh)	1,090	7	Sept or Oct	0.17
6. Support for revival of petty vendors	Katchiabadi (10% hh)	726	5	Sept or Oct	0.11
7. Support for revival of Carts + Animals	Katchiabadi (5% hh)	363	2	Sept or Oct	0.14
8. Support for livelihoods of charity group	Katchiabadi (5% hh)	363	2	Sept or Oct	0.06
9. Veterinary Support for Livestock Diseases (1 animal/hh)	Katchiabadi (5% hh)	363	2	Aug to Oct	0.00
10. Veterinary Support for Livestock Diseases (10 animals/hh)	Suburb Area (20% HH)	1,660	11	Aug to Oct	0.01
TOTAL million USD					1.34

REFERENCES

- ADB, REPORT of Asian Development Bank Project Preparatory Technical Assistance No TA 4525 – PAK Sindh Coastal and Inland Community Development Project.
- ADB/WB, Preliminary Damage and Needs Assessment for Baluchistan Flooding, ADB and World Bank, Islamabad, Pakistan, September 2007.
- Government of Pakistan, Bureau of Statistics, Population Census (1998)
- Government of Pakistan, Agriculture Census (2000)
- Government of Pakistan, Livestock Census (2006)
- Government of Sindh “District Vision Badin” IUCN (2006)
- Government of Pakistan, Development Statistics, Sindh Province (2007)
- Pakistan Fishing Folk Forum, Badin (2008)
- Sikhander Brohi, “Stakeholder Communities and their Livelihoods in the Indus Delta Eco- Region”.
- WFP-SDPI, Food Insecurity in Rural Pakistan, World Food Programme, Islamabad (2003)
- World Bank, Socio-economic study and proposal for livelihood improvements: Badin and Thatta districts, Sindh, Pakistan (April 2005).

LIST OF ANNEXES

1. Livelihood Based Contingency Plans
2. Methodology used to compile HLV baseline and contingency plan
3. Key organizations for livelihood support and recovery
4. Socio-economic data at District and Tehsil levels
5. Village and UC level demographic and housing data

ANNEX 1. LIVELIHOOD BASED CONTINGENCY PLANS

ANNEX 1: DETAILED LIVELIHOOD BASED CONTINGENCY PLANS

The following Annex gives the detailed breakdown of hazard-specific contingency plans. In constructing the plans a number of quantities and assumptions have been made. These are explained below:

Food:

The food package per household (HH) for one month includes the following items:

Rice: 10 kgs, Lentils: 10 Kgs, Oil 5 ltrs, Wheat Flour: 80 kgs, Sugar: 5kg, Tea: 01kg, Iodized salt: 1 kg, Red chilies: 1/2kg.

The above food package is designed with the consultation of WFP and provides about 2150 K calories/person/day. The prices of food are mentioned CG is based on the current market rates. The fluctuation in the food prices is frequent so it can be change any time of the year.

The quantity of the above mentioned food items may change according to the area context or geographical and the eating habits of the affected communities.

Kitchen Utensils:

Wok (Tawa), 12 Plates different size, Sauce Pan, Cooking pot, 6 cups, 6 small bowls, 1 big bowl, 6 Glasses, 1 Jug, 6 Spoons, Knife, Piece of cloth, Basket/plate for Bread, Cooking, Cooking spoons 2, Bucket with Mug, Cooking Stove with Gas Cylinder) + Match box, Lantern, Washing soap with foam.

Livestock Feed:

The quantity of the animal feed is designed with the consultation of FAO technical team.

Livestock Vaccination:

The livestock vaccination per animal is done in the consultation with FAO team and based on FAO experience in the field in different parts of the county.

Livestock Restocking:

The number of livestock is recommended with the consultation of community, as well as with the Livestock Department at the district level. This package is highly recommended for the poorest of the poor segments of society especially women.

Poultry Restocking:

24 Chicks (age ten weeks) + 50 kg poultry feed per HH. This package is designed with consultation of FAO technical team. This intervention is designed & recommended for the women the most vulnerable segment of the society.

Agri inputs:

Wheat seed/Maize seed/Veg seed, Rice seed/potato/ kitchen package and fertilizer: The quantity of the agriculture inputs are recommended on the basis of consultation with farming community in the field and verified with technical experts of agriculture department at local level.

Scenarios:

The Contingency plan is a sample model to develop any contingency plan according to the context and situation. In the sample model contingency plan the **most likely** scenario is covered.

In worst case scenario the sample model can be used but the contingency plan will be based on the magnitude of the disaster. The CP will be developed according to the need of the local area affected by the disaster.

A. Livelihood based contingency plan after Cyclone

Table A1: Livelihood based contingency plan for fishing communities after cyclone in affected UCs (Bhugra Memon, & Ahmed Raju) of district Badin*

Activity	Affected area	Support Unit	Period	Total fishing HH	Affected HH in need of support	Cost per unit (USD)	Unit Quantity/ hh	Duration (days)	total quantity (000 units)	Total amount (million USD)	Responsibilities
1. Food Support (100% hh) a month package	2 Ucs: Bhagra Memon (Badin) Ahmad Raju (Golarch i)	Package	July or Aug	2,900	2,900	2	1	30	87	0.17	District Government/ WFP / INGOs
2. Support for 50% repairing of Houses	do	House	July or Aug	2,900	1,450	-	-	-	-	-	District Government / INGOs/UNHabitat
3. Support for 50% construction of Houses	do	House	July or Aug	2,900	1,450	-	-	-	-	-	District Government / INGOs/UNHabitat
4. Support for Small Fishing Nets (Bhan) 60% hh	do	Nets (Bhans)	July or Aug	2,900	1,740	77	1	1	1.74	0.13	Fisheries Dept/ FAO / NGOs
5. Support for repairing 50% Nets & Boats (7% hh)	do	Repair of Boats	July or Aug	2,900	203	231	1	1	0.20	0.05	do
6. Support for replacement of 50% Nets & Boats (7% hh)	do	Boats/Ne ts	July or Aug	2,900	203	1231	1	1	0.20	0.25	do
7. Livestock Feed (50% hh) 0.5 Kg/goat for 3 goats/hh for a month	do	Kg	July or Aug	2,900	1,450	0.25	1.5	30	65.25	0.016	Livestock dept/ NGOs/ FAO
8. Veterinary Support for 3 animals/hh (50 % hh)	do	Vaccine	do	2,900	1,450	0.4	3	1	4.35	0.002	do
9. Restocking of small ruminants 2 goat/hh (20% hh)	do	goat	Sept - Oct	2,900	580	62	2	1	1.16	0.07	do
10. Restocking of poultry 6 chick/hh (85% hh)	do	chick	do	2,900	2,465	1.25	6	1	14.79	0.02	do
TOTAL million USD										0.71	

* Note: In line with the geographical vulnerability pattern depicted in Figure 2, the responses to cyclone have been quantified only for the two cyclone prone UCs (**Bhugra Memon, & Ahmed Raju**). If after a cyclone further UCs are damaged then the quantities will need to be increased proportionately to population.

Table A2: Livelihood based contingency plan for farming communities after cyclone in affected UCs (Bhugra Memon, & Ahmed Rajo) of district Badin*

Activity	Affected area	Support Unit	Period	Total HH**	Affected HH in need of support	Cost per unit (USD)	Unit Quantity/ hh	Duration (days)	total quantity (000 units)	Total amount (million USD)	Responsibilities
1. Food Support (100% hh) a month package	2 Ucs: Bhagra Memon (Badin) Ahmad Raju (Golarchi)	Food Package for Month ^a	May or June	9,609	9,609	2	1	30	288	0.58	District Government/ WFP / INGOs
2. Support for rice seed (50% hh) for an acre	do	Kg	June or July	9,609	4,805	0.45	50	1	240	0.11	Agri Dept/ FAO / NGOs
3. Support for 70% repairing of houses	do	Number	July or Aug	9,609	6,726	-	-	-	-	-	District Government / INGOs/UNHabitat
4. Support for 30% construction of houses	do	do	July or Aug	9,609	2,883	-	-	-	-	-	District Government / INGOs/UNHabitat
5. Livestock Feed (50% hh) 0.5Kg/goat for 3 goats/hh	do	Kg	July	9,609	4,805	0.25	1.5	30	216	0.05	Livestock Dept/ FAO / NGOs
6. Veterinary Support 1 cow & 3 goats/HH (96% hh)	do	Vaccine	do	9,609	9,225	0.4	3	1	28	0.01	Livestock Dept/ FAO / NGOs
10. Restocking of small ruminants (2 goat/hh) (50% hh)	do	Number	Sept or Oct	9,609	4,805	62	1	1	5	0.30	do
11. Poultry Restocking (6 chicks + feed to 54% hh)	do	Number	Oct	9,609	5,189	1.25	6	1	31	0.04	do
12. Kitchen Gardening Support -50% hh	do	Package	do	9,609	4,805	10	1	1	5	0.05	Agri Dept/ FAO / NGOs
TOTAL million USD										1.13	

* In line with the geographical vulnerability pattern depicted in Figure 2, the responses to cyclone have been quantified only for the two cyclone prone UCs (**Bhugra Memon, & Ahmed Rajo**). If after a cyclone further UCs are damaged then the quantities will need to be increased proportionately to population.

** The total household numbers are derived from the population numbers (Table 4) divided by average household size [Calculated as follows: Total HHs in two UCs minus fishing community].

B: Livelihood based contingency plan for monsoon flooding

Table B1: Livelihood based contingency plan after monsoon flooding for fishing communities in two coastal high risk UCs (Bhugra Memon, & Ahmed Rajo) of district Badin

Activity	Affected area*	Support Unit	Period	Total HH**	Affected HH in need of support	Cost per unit (USD)	Unit Quantity/ hh	Duration (days)	total quantity (000 units)	Total amount (million USD)	Responsibility
1. Food Support (100% hh) a month package	2 Ucs: Bhagra Memon (Badin) Ahmad Raju (Golarchi)	Food Package for a Month*	May or June	2,900	2,900	2	1	30	87	0.17	District Government/ WFP / INGOs
2. Support for 30% repairing of houses	do	Number	July or Aug	2,900	870	-	-	-	-	-	District Government / INGOs/UNHabitat
3. Livestock Feed (50% hh) 0.5 kg/goat for 3 goats for a month	do	Kg	Sept	2,900	1,450	0.25	1.5	30	65	0.02	Livestock Dept/ FAO / NGOs
4. Veterinary Support 3 goats/HH (96% hh)	do	Vaccine	Sept	2,900	2,784	0.4	3	1	8	0.003	Livestock Dept/ FAO / NGOs
5. Restocking of small ruminants (2 goat/hh) (50% hh)	do	Number	Sept or Oct	2,900	1,450	62	1	1	1	0.09	do
6. Poultry Restocking (6 chicks + feed to 54% hh)	do	Number	Oct	2,900	1,566	1.25	6	1	9	0.01	do
TOTAL million USD										0.30	

Table B2: Livelihood based contingency plan after monsoon flooding for farming communities in high risk UCs of district Badin.

Activity	Affected area*	Support Unit	Period	Total HH**	Affected HH in need of support	Cost per unit (USD)	Unit Quantity/ hh	Duration (days)	total quantity (000 units)	Total amount (million USD)	Responsibility
1. Food Support for a month(100% hh)	11 High risk Ucs*	Package	Aug or Sept	62,978	62,978	2	1	30	1,889	3.78	District Government/W FP/ NGOs
2. Support for repairing of 50% houses	do	house	Aug or Sept	62,978	31,489	-	-	-	-	-	UN Habitat / Government / NGOs
3. Livestock Feed (5 Kg / Cow for 2 cows for a month) (50% hh)	do	Kg	Aug or Sept	62,978	31,489	0.25	10	30	9,447	2.36	Livestock Dept/ FAO / NGOs
4. Veterinary Support (5 animals/hh for 50% hh)	do	Vaccine	Aug or Sept	62,978	31,489	0.4	5	1	157	0.06	do
5. Restocking of small ruminants (50% hh)	do	Goat	Sept or Oct	62,978	31,489	70	1	1	31	2.20	do
6. Wheat Seed support (for 8 Kanals) (50% hh)	do	Kg	Sept or Oct	62,978	31,489	0.5	60	1	1,889	0.94	Agri Dept/ FAO / NGOs
7. Fertilizer support (Urea)	do	Kg	Sept or Oct	62,978	31,489	0.5	100	1	3,149	1.57	do
8. Fertilizer support (DAP)	do	Kg	Sept or Oct	62,978	31,489	1	50	1	1,574	1.57	do
9. Support for Winter Vegetable seed (50% hh)	do	Package	Oct	62,978	31,489	10	1	1	31	0.31	do
10. Seed for Sunflower (2 Kanals) (50% hh)	do	Kg	Dec	62,978	31,489	1	10	1	315	0.31	do
11. Fertilizer (Urea)	do	Kg	do	62,978	31,489	0.5	10	1	315	0.16	do
12. Fertilizer (DAP)	do	Kg	do	62,978	31,489	1	10	1	315	0.31	do
13. Poultry Restocking plus feed package (6 chicks - 50%hh)	do	Chick	October	62,978	31,489	1.5	6	1	189	0.28	Livestock Dept/ FAO / NGOs
Total (million USD)										13.89	

* Total Ucs monsoon flood affected UCs 11 (see Table 4 above).

** This also include the two coastal Ucs. However the 2900 fishing households have been excluded from the total number of households

Table B3. Livelihood based contingency plan after monsoon flooding for urban communities in district Badin.

Activity	Affected area	Support Unit	Period	Total HH (katchiabadi & suburb) *	Affected HH in need of support	Cost per unit (USD)	Unit Quantit y/ hh	Durati on (days)	total quantity (000 units)	Total amount (million USD)	Responsibility
1. Food Support for a month	All hh in Katchiabadi and 10% in Suburb area	Packag e	Aug	15,565	8,094	2	1	30	242.8	0.49	District Government/ WFP/ NGOs
2. Distress Cash Grants (Equiv. To one month wage)	75% in Katchiabadies & 10% of suburb area	Cash	Aug - Sept	15,565	6,278	2	1	30	188.3	0.38	District Government/ NGOs
3. Support for Pumping out of water	All katchiabadi	number	do	15,565	7,264	-	-	-	-	-	Works Dept / NGOs
4. Support for repairing houses	Katchiabadi (50% hh)	do	Sept - Oct	15,565	3,632	-	-	-	-	-	UN Habitat / Government / NGOs
5. Support for construction	Katchiabadi (20% hh)	do	do	15,565	1,453	-	-	-	-	-	UN Habitat / Government / NGOs
6. Support for equipment/tools for skilled labour	Katchiabadi (15% hh)	do	do	15,565	1,090	154	1	1	1.1	0.17	ILO / district Government / NGOs
7. Support for revival of petty vendors	Katchiabadi (10% hh)	cash	do	15,565	726	154	1	1	0.7	0.11	ILO / District Govt/ INGOs
8. Support for revival of Carts + Animals	Katchiabadi (5% hh)	number	do	15,565	363	385	1	1	0.4	0.14	ILO / District Govt/ INGOs
9. Support for livelihoods of charity group	Katchiabadi (5% hh)	cash	do	15,565	363	154	1	1	0.4	0.06	ILO / District Govt/ INGOs
10. Veterinary Support for Livestock Diseases (1 animal/hh)	Katchiabadi(5% hh)	Vaccine	Aug - Oct	15,565	363	0.4	1	1	0.4	0.0001	Livestock Department, FAO / NGOs
11. Veterinary Support for Livestock Diseases (10 animals/hh)	Suburb Area (20% HH)	do	Aug to Oct	15,565	1,660	0.4	10	1	16.6	0.007	Livestock Department, FAO / NGOs
TOTAL million USD										1.34	

* The estimate hh of the urban communities have been derived based upon the following proportions:

- 1: Population of Badin Town = 110,000 (20,755 hh)
2. Proportion of population living in main city (25%) = 27,505 (3915 hh) - not at risk
3. Proportion of population living in suburb areas (40%) = 44,000 (8301 hh). Of this 10% (830 hh) are at high risk of flooding being very poor involved in daily wage labour
4. Proportion of Population living in Katchiabadies (35%) = 38,500 (7264 hh). All are at risk

ANNEX 2: METHODOLOGY FOR HLV BASELINE AND CONTINGENCY PLAN

The development of the district level baseline and contingency plan involves the following processes:

1. Review of secondary data collection and analysis;
2. Field work involving group discussions with communities, Tehsil and district level officials followed by initial presentation of results to district and Tehsil level officials for feedback and validation;
3. Analysis and report writing;
4. Follow up visits to district authorities for mainstreaming of baseline and contingency plan into district decision making processes and budgets.

1. Secondary data: The secondary data is divided into the following categories: Demographics (including vulnerable group profiling); Land use agriculture and livestock; Livelihood types, food security, poverty and nutrition, and; Housing, hospitals and schools. A list of tables showing the secondary data can be found in Annex 4.

2. Fieldwork: Fieldwork involved a number of steps, standardized across each district covered.

Step 1: Group discussions with district officials (DDMA and senior district officers from revenue and line departments) for half a day followed by discussions with local NGOs (for further validation and more details). Flip charts were used to obtain the following information:

- Hazard mapping and impacts
- Identification of vulnerable areas and Union Councils (prone to various hazards) on district map.
- Coping mechanisms, assessment systems and relief efforts
- Role and responsibilities at district and sub-district level in response to disaster
- Broad classification of livelihood groups

Step 2: The above results were further validated in a group meetings with Tehsil level officials, using the same flip-charts. Tehsil-wise quantitative information on cropping and livestock etc. was also obtained and further details on and validation of vulnerable Union Councils was obtained.

Step 3: A random sample of high risk UCs was drawn, and arrangements for community level visits were made through local NGOs.

Step 4a: Interviews were held with communities using a standard set of PRA tools including the following: historical timeline; mapping; ranking and scoring; livelihood and wealth group classification and quantification; seasonal calendars. Semi structured interviewing techniques were used to investigate how communities and different households within communities cope with disasters. And what kinds of support net a number of communities were visited and interviews were carried out with groups of male and female key informants.

Step 4b: At the same time as the PRA work, a food security household questionnaire was administered to a sample of households in the community. In district Badin, this sample survey was not conducted.

Step 5: The findings on the basis of the above were presented to the district officials and NGOs in a separate/ joint meeting to debrief/validate and agree upon the results.

3. Analysis and Report Writing: This begins in the field and is completed in Islamabad. Approximately 10 days is required for production of a zero draft report, which is then further refined to produce a draft which can be shared with various stakeholders.

4. Repeat visit to District for mainstreaming: After the draft report is produced, it is sent to DCO for circulation to district officers and other concerned staff for comments. Simultaneously, the draft report is also sent to Provincial Disaster Management Authority and Relief Commissioner as well as local district NGOs. A further visit is conducted to explore ways of mainstreaming the baseline within district level planning and budgeting frameworks. This is done through a half day visit to the DCO and his team, and is followed up with an agreed action plan

ANNEX 3: INSTITUTIONS FOR LIVELIHOOD SUPPORT

National Disaster Management Authority,	Prime Minister Secretariat, Islamabad. Phone: +92-51-9222373 Fax: +92-51-9204197 E-mail: fakhan@ndma.gov.pk
Provincial Relief Commissioner Sindh	Old Barracks (opposite MPA Hostels), Saddar Area, Karachi. Phone: +92-21-9202630 Fax: +92-21-9203407 E-mail:
Provincial Disaster Management Authority	Block 92, Opposite Sindh Assembly, Saddar Area, Karachi. Phone: +92-21-9207042 Fax: +92-51-9207044. E-mail:
District government and (DDMA), Badin	DCO office, , District Badin, Sindh, Pakistan Phone: +92-297-862242 Fax: +92- E-mail:
Local NGOs	
Badin Development & Research Organisation	Near new seerani Bus Stop, Seerani Road Badin, Sindh Pakistan PH: +92 297 61429 Email: bdrongo@hotmail.com
Badin Rural Development Society	Near DCO Office, Hyderabad Road, Badin Sindh, Pakistan PH; +92 29761683 Cell: +92 300 837 3293
Laar Humanitarian Development Organisation	Garibabad Badin Sindh Pakistan. +92 297 86 1959 Cell:+92304 291 2565
Pakistan Fisherfolk Forum	Kadhan Road, Badin, Sindh Pakistan PH: +92 297 81 0015
Sindh Aurat Development Association	Kadhan Road Badin, Sindh Pakistan PH: +92 297 61143
Women Development Association	PAF Road Badin, Sindh Pakistan PH: +92 297 61516
National Rural Support Programme	Opposite United Hotel, Main Road, Badin, Sindh Pakistan
Sindh Abadgaar Board	Badin, Sindh Pakistan PH; +92 297 61149, 61237, 61697
Health and Nutrition Development Society (HANDS)	PH: +92 297 62529
Sindh Graduates Association (SGA)	C/O Junaid Cloth House, Shahbaz Road Badin, Sindh Pakistan PH; +92 297 62367, 61546
Naujawan Sangat	Municiple Shopping Centre, Station Road Badin, Sindh, Pakistan PH: +92 297 61902
Laar Development association	Golarchi Road, Badin, Sindh Pakistan PH: +92 297 62318 Email:laarbadin@hotmail.com
Young Sheedi Welfare Organisation	Seerani Road, Badin Sindh Pakistan

ANNEX4: SOCIO-ECONOMIC DATA AT DISTRICT AND TEHSIL LEVEL

1. Area and Population (2008 estimates)

Taluka (Tehsil)/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka****	All Badin District
Area (Sq. Km)*	2,084	1,143	1,734	1,765	-	6,726
Number of Households** (000)	88	60	74	45	26	268
Rural	67	48	68	41	-	224
Urban	21	12	6	4	-	44
Average HH size*	5.2	5.6	5.2	5.5	5.1	5.3
Rural	5.2	5.6	5.2	5.5	-	5.3
Urban	5.2	5.6	5.2	5.5	-	5.3
Average growth rate*	2.58	1.65	2.56	2.19	2.11	2.26
Rural	2.58	1.65	2.56	2.19	2.11	2.26
Urban	2.58	1.65	2.56	2.19	2.11	2.26
Number Ucs*	12	12	10	8	4	46
Number of villages*	140	101	114	114	57	
Total Population (000)***	459	334	384	247		1,421

Source: Projected as on 1998 census

* 1998 Census data

** estimates for 2008: calculated as projected population/average HH size of 1998 census

*** 2008 estimates: projected on the basis of 1998 census growth rate

**** This Taluka has been recently formed separated from Badin, Matli and Tandobago Talukas

2. Population by Sex (000) (2008 estimates)

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (new Taluka)	All Badin District
Male	242	173	202	132	-	747
Female	216	160	182	116	-	673
Total	459	334	384	247	-	1,421

Source: Projected population based on 1998 census

3. Population by Urban-Rural (000) (2008 estimates)

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (new Taluka)	All Badin District
Rural*	349	267	351	224	-	1,187
Urban*	110	67	33	24	-	233
Total	459	334	384	247	-	1,421

Source: Projected population based on 1998 census

* Average growth rate was assumed for both rural and urban population

4. Population by Age Group (000) (2008 estimates)

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (new Taluka)	All Badin District
Total						
Under 1 years of age	10	8	8	6	-	32
1- 4 years of age	61	46	55	36	-	197
5-14 years of age	133	95	113	70	-	411
15 - 64 years of age	241	175	196	127	-	737
Above 64 years of age	13	10	12	9	-	44
Total	459	334	384	247	-	1,421
Rural*					-	
Under 1 years of age	8	6	7	5	-	27
1- 4 years of age	47	38	51	32	-	167
5-14 years of age	102	76	104	63	-	345
15 - 64 years of age	181	139	178	115	-	612
Above 64 years of age	11	8	11	8	-	37
Total	349	267	351	224	-	1,187
Urban*					-	
Under 1 years of age	2	2	1	0	-	5
1- 4 years of age	14	8	4	3	-	30
5-14 years of age	31	19	9	6	-	66
15 - 64 years of age	60	36	18	12	-	126
Above 64 years of age	3	2	1	1	-	7
Total	110	67	33	24	-	233

Source: Projected population based on 1998 census

* Average growth rate was assumed for both rural and urban population

5. Houses by type

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (new Taluka)	All Badin District
Number of Houses*	72836	58518	57168	43593	26289	258405
% pucca (bricks)*	14	27	9	12	13	15
% Semi pucca*	71	33	53	70	54	56
% Katcha (mud)*	16	39	36	18	33	28

Source: Projected based on 1998 census

* 2008 projected houses = # of Houses 1998(1+g)ⁿ, where g=1998 population growth rate of the Tehsil

6. Land use

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (new Taluka)	All Badin District
Geographical area (Sq. km)	2084	1143	1734	1765	na	6726
Cultivated area (000 acres)	Na	na	na	na	na	812
Rain fed					na	0.3
Irrigated					na	786
%Forest area						1.34

Source: Agriculture Census 2000, Sindh Province

7. Cropped Area (2007/2008)

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (New Taluka)	All Badin District
Kharif area (000 acres)	59	66	52	46	30	252
Rabi area (000 acres)	18	33	17	29	7	104

Source: District officials, Badin

8. Area under Major Kharif Crops (Average of 2006/2007 and 2007/2008)

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (New Taluka)	All Badin District
Cotton	1,677	7,625	4,476	1,010	778	15,565
Sugarcane	12,308	16,086	13,206	1,613	5,222	48,435
Paddy	32,674	12,564	18,946	36,977	14,843	116,003
Fodder & Pulses	-	566	-	-	-	566
Vegetables	69	678	365	21	444	1,577
Chilies	-	-	3,708	-	-	3,708
Melon	-	-	306	-	-	306
Garden	-	1,118	-	-	-	1,118
Banana	-	2,630	-	-	43	2,672
Other Kharif Crops	12,082	24,419	10,726	6,666	8,298	62,189
Total	58,809	65,684	51,732	46,286	29,627	252,137

Source: District officials, Badin

9. Area under Major Rabi Crops (Average of 2006/2007 and 2007/2008)

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (New Taluka)	All Badin District
Wheat	2,799	16,323	6,848	-	1,116	27,086
Barley	3,272	-	1,233	363	3,280	8,148
Rape& mustard seed	1,953	2,284	2,070	-	506	6,812
Vegetables	8,200	1,194	-	-	226	9,620
Sun flower	-	-	-	26,670	-	26,670
Fennel (Ajwan)	-	-	-	1,238	-	1,238
Fodder	-	-	-	-	-	-
Garden	-	1,238	1,038	-	-	2,276
Banana	-	2,534	155	-	-	2,689
Acasia (Hurri) & nursery	-	-	-	-	-	-
Cordmen	-	-	-	-	-	-
Other Rabi Crops	2,089	9,338	5,683	867	1,859	19,836
Total	18,313	32,910	17,027	29,138	6,986	104,373

Source: District officials

10. Farm households data

Tehsil/District	All Badin District
total # of farm households	96586
% owner farms	45
% owner cum tenant farms	4
% tenant farms	51
# of owner cultivators	43560
% owner cultivators with	
> 5 acres	29
5 - 12.5 acres	37
25 - 50 acres	29
< 50 acres	5
# owner cum tenant	3810
% owner cum tenant with	
> 5 acres	7
5 - 12.5 acres	43
25 - 50 acres	39
< 50 acres	11
# of tenants	49216
% tenant with	
> 5 acres	40
5 - 12.5 acres	52
25 - 50 acres	7
< 50 acres	0

Source: Agriculture Census, 2000

11. Livestock by type (2005)

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (New Taluka)	All Badin District
# of animals by type	267244	228183	245722	248201	167068	1156418
Cows	62546	57899	59794	66732	42377	289348
Buffaloes	90890	59544	70832	91230	55278	367774
Sheep	35847	28403	38930	43908	16419	163507
Goats	57871	78542	72830	42521	50459	302223
Camels	18115	940	1532	2003	895	23485
Horses & mules	235	328	209	179	127	1078
Donkeys	1744	2527	1595	1628	1513	9007

Source: District Officer, Animal Husbandry, Livestock Department, District Badin

12. Employment status by groups in District Badin (1998)

	Total	Rural	Urban
Total population (000)	1,421	1,187	233
Population between 15 to 64 years of age (000)	737	612	126
Total number employed (000)	176	141	35
Employed population as % of population between 15 to 64 years of age	24	23	28
Employed population by occupation			
Self employed (mainly agriculture)%	64	70	38
Service govt/auto bodies %	7	5	19
Service private %	13	9	28
Employer %	1.3	1.4	1.0
Unpaid family helpers %	15	15	14
Employed by groups			
Employees (%)	7	3	23
Service workers (%)	5	2	14
Skilled agriculture/fisheries workers (%)	66	80	7
Other skilled Non agriculture workers (%)	2	1	6
Wage labours (%)	21	13	51

Source: Population Census 1998

13. Disabled Population by age group in District Badin

Age group	Both sexes	Male	Female	Rural	Urban
Total disabled (#)	18,149	9,873	8,276	14,719	3,230
0 -14 years (%)	43	44	41	42	49
15 - 29 years (%)	20	18	22	20	21
30 -39 years (%)	8	7	9	8	11
40 - 64 years (%)	19	19	19	20	14
Above 64 years (%)	10	12	9	10	5
Total	100	100	100	100	100

Source: Population Census, 1998.

14. Widows/Divorced Population age of 15 years and above in District Badin

	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (New Taluka)*	All Badin District
All	10,254	9,787	9,295	6,049	-	35,385
Male	3,010	2,685	2,740	2,131	-	10,566
Female	7,244	7,102	6,555	3,918	-	24,819
Rural	7,844	7,340	8,358	5,528	-	29,070
Male	2,323	1,964	2,501	1,984	-	8,772
Female	5,521	5,376	5,857	3,544	-	20,298
Urban	2,410	2,447	937	521	-	6,315
Male	687	721	239	147	-	1,794
Female	1,723	1,726	698	374	-	4,521

Source: Population Census, 1998

15. Schools/colleges

Tehsil/District	Badin Taluka	Matli Taluka	Tandobago Taluka	Shaheed Fazil Taluka	Talhar Taluka (New Taluka)
# primary schools	617	785	663	539	448
# middle schools	27	26	18	18	7
# secondary schools	15	15	10	7	13
# Higher Secondary/colleges	0	0	2	2	1
# vocational centers	42	41	30	27	21

Source: Badin District Education Plan 2006

16. Employment status by groups in District Badin (1998)

	Total	Rural	Urban
Total population (000)	1,421	1187	233
Population between 15 to 64 years of age (000)	737	612	126
Total number employed (000)	176	141	35
Employed population as % of population between 15 to 64 years of age	24	23	28
Employed population by occupation			
Self employed (mainly agriculture)%	64	70	38
Service govt/auto bodies %	7	5	19
Service private %	13	9	28
Employer %	1	-	1
Unpaid family helpers %	15	15	14
Employed by groups			
Service workers (%)	7	3	23
Skilled agriculture/fisheries workers (%)	66	80	7
Other skilled Non agriculture workers (%)	7	4	19
Wage labours (%)	21	13	51

Source: Population census 1998

17. Disabled Population by age group

Age group	Total	Rural	Urban
Total disabled (#)	18,149	14,719	3,230
0 -14 years (%)	43	63	19
15 - 29 years (%)	20	29	8
30 -39 years (%)	8	11	4
40 - 64 years (%)	19	30	6
Above 64 years (%)	10	15	2

Source: Population census 1998

ANNEX 5: PROJECTED (2008) DEMOGRAPHIC AND HOUSING DATA AT VILLAGE AND UC LEVEL IN DISTRICT BADIN

Name of UC/Tehsil	Population			Literacy Ratio	Religion		18 years & above	Housing units by type			
	Both sexes	Male	Female	%	Muslims	others		Total	Pacca	Semi-pacca	Kacha
Badin District											
Tehsil Badin											
Badin I	29763	15435	14328	50	26096	3666	15107	5724	2420	2787	516
Circle 1	9303	4910	4393	27	8173	1130	4419	1789	222	1351	217
Circle 8	7929	3958	3971	98	7568	361	4255	1525	1419	65	41
Circle 9	9409	4928	4481	64	8036	1373	4717	1809	993	594	223
Baghar	1613	864	748	35	1596	17	943	310	15	296	0
Bhano	1509	774	735	28	724	786	774	290	11	265	14
Badin II	33511	19114	14396	56	30812	2699	18286	6444	2233	3476	735
Circle 2	7182	3753	3429	27	6451	731	3469	1381	158	1070	154
Circle 3	12478	7977	4501	86	11550	928	7841	2400	1765	265	369
Circle 4	11168	5968	5200	61	10175	993	5688	2148	675	1237	235
Ojhri	2682	1417	1266	50	2636	46	1288	516	5	498	13
UC Badin III	28768	15022	13746	30	26716	2053	14856	5532	2077	2299	1156
Circle 5	6657	3479	3178	57	6351	306	3361	1280	832	217	231
Circle 6	9418	4902	4515	43	8442	975	5171	1811	929	722	160
Circle 7	7530	3941	3589	42	7218	312	3681	1448	445	608	395
Janki	2179	1122	1057	7	2122	57	1099	419	4	413	2
Charandi	980	516	464	5	965	15	483	189	4	183	1
Janath	528	271	257	40	490	37	319	101	0	41	61
Panchi	1476	790	686	19	1126	350	743	284	6	24	254
UC Luari Sharif	27206	14198	13008	32	24288	2918	14025	5232	819	3567	846
Lunwari sharif	9045	4671	4373	59	8602	443	4512	1739	630	859	251
Andhalo	3211	1708	1503	47	2842	369	1891	618	126	105	386
Buxa	1979	1063	916	27	1586	393	935	381	8	373	0
Gaad	1807	926	881	30	1398	409	937	348	30	316	1
Jurho	2232	1202	1030	33	2093	139	1126	429	9	419	1
Waharyaro	1487	791	697	33	1208	280	766	286	19	257	10
Charo	1948	1004	944	18	1540	408	951	375	49	146	180
Shaikhpur	3381	1744	1637	20	3116	266	1787	650	6	613	31
Kunner	1010	504	506	30	970	40	511	194	6	178	10
Lao	1104	583	521	26	933	172	609	212	6	206	0
UC Jhol/Mohammad Khan Bhurgri	34183	17793	16388	37	31872	2311	21237	6574	255	5691	624
Moro	1019	532	488	54	991	28	511	196	0	169	27
Burundi	1956	1094	861	14	1927	28	1089	376	3	344	29
Dhandhi	1340	730	610	11	1330	10	673	258	6	246	6
Khirdahi	1437	764	673	24	1426	12	684	276	9	178	90
Pano Bakhar	1542	823	719	14	1458	84	734	296	7	289	1
Jholkasi	3433	1802	1631	46	3145	288	1598	660	9	574	77
Moreeri	1500	786	715	39	1166	334	720	289	3	281	5
Pano Baeed	2481	1288	1193	33	2445	36	1281	477	13	451	13

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Name of UC/Tehsil	Population			Literacy Ratio	Religion			Housing units by type				
	Both sexes	Male	Female	%	Muslims	others	18 years & above	Total	Pacca	Semi-pacca	Kacha	
Qaimpur	1925	1008	917	30	1860	65	964	370	8	354	8	
Bokhi	1900	948	952	42	1642	258	5189	365	15	286	65	
Choralo	1775	886	889	61	1673	102	840	341	51	256	30	
Abri	5015	2520	2495	56	4727	288	2363	964	36	839	90	
kalhorki	2216	1192	1024	34	2130	86	1179	426	41	358	28	
Jharkandi	2151	1115	1036	53	1905	245	1048	414	18	382	13	
Bakho Khudi	1770	919	851	37	1484	286	922	340	23	318	0	
Kamaro	2722	1388	1334	50	2562	160	1441	523	6	501	16	
UC Nindo Shaher	31317	16421	14897	27	28527	2791	16321	6023	767	4693	563	
Nindo Shahar	7355	3838	3517	44	6803	552	3775	1414	586	746	82	
Gujo	1202	570	632	41	1201	1	615	231	22	187	22	
Panwharki	2789	1486	1303	27	2652	137	1491	536	57	465	15	
Siyalki	3990	2125	1865	47	3637	353	2053	767	43	655	69	
Angri	1309	694	615	15	1214	95	639	252	16	219	16	
Khalso	4313	2209	2104	18	3541	771	2173	829	61	662	106	
Markhan	2286	1214	1072	34	2157	129	1215	440	18	418	3	
Dasti	3694	2019	1675	14	3319	374	2032	710	10	520	180	
Bhambhki	1816	968	849	11	1569	248	984	349	2	346	2	
Khakhar	2562	1298	1264	17	2433	129	1344	493	33	419	41	
UC Abdullah shah	28086	14934	13151	33	26642	1444	15307	5401	392	4640	370	
Ret	1662	891	770	28	1579	83	913	320	5	314	1	
Chanesary	2086	1050	1036	28	2084	3	987	401	17	382	2	
Sanjrah	1098	628	470	36	1098	0	1859	211	24	152	35	
Sarooro	3621	1916	1706	37	3455	166	1859	696	15	609	73	
Odha	1484	778	706	56	1462	22	738	285	54	230	1	
Panu Lundki	3793	2014	1779	35	3590	203	2091	729	84	624	22	
Panumirkhan	1854	1035	819	27	1853	1	735	357	19	336	2	
Mirzanpur	2084	1106	978	50	1995	89	1057	401	31	369	0	
Khambhro	2785	1475	1311	31	2707	79	1307	536	75	461	0	
Achh	1735	886	849	36	1626	110	828	334	34	258	41	
Achro	1097	582	515	20	929	168	538	211	29	93	89	
Gabarlo	4788	2574	2214	12	4266	521	2394	921	19	812	90	
UC Mithi	32927	17450	15477	14	25953	6974	15964	6332	445	5460	1997	
Mithi I II III	10548	5695	4853	15	8859	1689	5224	2028	167	1380	481	
Padhar	3273	1733	1540	16	2468	805	1663	629	16	540	74	
Widhri	1793	961	832	7	1130	663	810	345	44	291	10	
Kumbhariro	2996	1606	1389	28	2379	617	1426	576	33	162	381	
Sehta	3570	1909	1660	15	3156	414	1756	686	32	552	103	
Pakhothar	3076	1663	1413	8	1484	1592	1392	591	12	550	30	
Walhari	7672	3883	3789	6	6478	1195	3694	1475	474	8934	5387	
UC Kadikazia	29989	15686	14302	18	22093	6354	15483	5767	109	4421	1237	
Khoro	1442	737	706	18	1122	320	710	277	8	180	89	
Jalhar	1373	710	663	30	1140	232	760	264	17	236	11	
Patiyari	876	450	426	31	823	53	524	168	3	165	0	
Pano	1684	877	806	17	1208	476	1018	324	9	211	104	
Makrah	1030	544	485	4	868	161	537	198	1	195	1	
Dhandh	1184	621	564	10	1084	101	601	228	4	223	1	
Daphri	971	511	461	2	641	330	464	187	0	179	7	

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Name of UC/Tehsil	Population			Literacy Ratio	Religion			Housing units by type			
	Both sexes	Male	Female	%	Muslims	others	18 years & above	Total	Pacca	Semi-pacca	Kacha
Waryaso	1438	784	654	3	752	686	756	277	0	272	4
Kadi Kazia	1410	775	635	17	1213	197	716	271	2	267	2
Bhaneri	1868	984	884	20	1290	578	921	359	1	6	352
Sorhadi	1352	685	667	11	699	653	663	260	6	248	6
Kand	965	508	457	10	535	430	437	186	1	184	0
Dunghadi	1227	627	600	38	768	459	606	236	1	47	188
Nangro	2210	1137	1073	23	1735	475	1139	425	13	407	5
Githo	1130	588	542	9	744	386	512	217	7	210	0
Jhagri	2847	1478	1369	21	2547	301	1473	548	11	537	0
Morhadi	1782	907	875	33	1506	276	880	343	9	329	4
Pado	1875	987	888	25	1810	65	1026	360	1	185	174
Baghreji	1657	844	813	24	3	112	888	319	7	114	198
Chandhadi	1668	931	737	9	1605	63	851	321	2	290	29
UC Kadhan	29415	15703	13711	28	25484	3931	14534	5657	799	3173	955
Kadhan	7506	3948	3558	58	6207	1299	3679	1443	649	753	42
Seenghari	7094	3780	3314	11	6365	729	3514	1364	13	1009	343
Sutyri	2696	1440	1257	33	2598	98	1371	519	24	263	232
Siarsi	3116	1699	1417	16	2810	306	1610	599	28	566	5
Sanghar	2344	1328	1017	14	2256	88	1164	451	103	28	320
Jhanjhli	4256	2264	1992	16	3125	1131	2059	818	25	76	30
Kadhan Part	2402	1245	1157	50	2122	280	1137	462	8	424	30
UC Seerani	33491	17543	15948	26	31348	2143	17727	6441	115	5370	945
Marahi	1623	827	796	22	1533	90	858	312	8	303	1
Malki	2173	1179	993	13	2031	142	1224	418	13	347	58
Makhandi	2029	1022	1008	30	1822	208	975	390	0	375	15
Nanger Khet	1631	879	752	25	1565	66	837	314	15	290	9
seerani	2765	1511	1254	9	2543	222	1455	532	5	461	20
Maja Basri	1445	765	680	17	1418	27	721	278	1	232	45
Runkhadi	1014	532	483	29	1014	0	541	195	5	117	73
Talli	2240	1159	1081	27	2237	3	1217	431	21	402	8
Jhakhralo	1423	733	690	19	1420	3	757	274	0	274	0
Bejoriro	1681	863	818	33	1459	222	870	323	0	312	12
Chhel	1476	781	695	21	1423	53	720	284	0	284	0
Bidhadi	1473	770	703	17	1389	84	779	283	0	34	250
Ghurbi	1401	717	684	23	1389	12	782	269	3	267	0
Bandho	2345	1254	1091	35	2020	325	1223	451	13	350	123
Khorhadi	2244	1149	1094	21	1666	578	1193	431	12	401	18
Warerki	612	315	297	16	593	18	319	118	0	116	1
Akro	593	315	279	41	593	0	324	114	2	112	0
Daleji	1564	810	753	34	1564	0	831	301	16	285	0
Jakhri	1464	778	686	35	1462	3	831	282	0	270	12
Amin Nareero	1401	739	662	33	1358	43	810	269	0	20	250
Pahori	895	446	449	56	849	46	461	172	0	170	3
UC Bughra Memon	34521	18241	16280	27	32690	1831	18153	6639	159	5114	1366
Nareri	3095	1598	1497	27	3050	45	1903	595	1	594	0
Behdami	2299	1217	1082	29	2170	129	1223	442	47	390	6
Chobandi	1592	854	738	38	1480	112	790	306	8	259	39
Dingher	2194	1160	1035	31	2189	5	1093	422	1	416	4
Khalifa	1040	574	466	38	1028	12	562	200	1	199	0

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Iundo	1157	583	574	22	1157	0	626	223	0	220	2	
Khudi	231	123	108	33	231	0	111	44	0	44	0	
Palh	633	332	302	23	633	0	308	122	1	119	2	
Waghu Daho	2053	1066	987	14	2022	31	1245	395	1	383	10	
Mor	1070	569	501	10	1027	43	529	206	0	206	0	
Kak	3036	1677	1358	9	2367	668	1433	584	4	511	69	
Marad	1681	891	790	13	1681	0	822	323	0	129	194	
Buharki	5198	2717	2481	14	4579	619	2549	1000	71	871	58	
Kan Diari	218	129	89	0	218	0	98	42	0	42	0	
Siantri	139	80	59	1	139	0	77	27	0	1	26	
Lareri	1628	871	757	61	1626	3	928	313	13	3	297	
Lunkhan	1889	971	917	51	1771	117	1018	363	15	230	119	
Chorhadi	1365	711	654	45	1362	3	741	262	0	262	0	
Sando	870	463	406	55	864	5	532	167	2	46	119	
Luhan	2116	1139	977	27	2087	28	1059	407	1	299	107	
Thath	65	32	32	32	63	1	44	12	0	6	7	
Warhyaro	786	403	383	21	777	9	361	151	1	8	142	
Pateji	168	81	86	37	168	0	102	32	0	0	32	
Talhar Tehsil												
UC Talhar	32612	17082	15529	20	27117	5494	16809	6394	1465	3204	1725	
Habach	1588	806	782	17	1311	277	856	311	8	3	301	
Lakhi	1537	792	744	10	1235	302	807	301	38	61	202	
Pilandi	1071	567	504	7	858	213	557	210	3	60	147	
Tlahar	3840	1958	1882	25	3371	468	1946	753	296	374	83	
Seeri	9388	5072	4316	17	8257	1131	4792	1841	127	1466	248	
Pathariyoon (circle 2)	10867	5694	5173	41	9174	1693	5640	2131	1088	620	422	
Wasi Adil	4321	2193	2128	19	2912	1410	2211	847	117	457	274	
UC Piro Lashari	35734	18792	16942	29	30084	5403	18404	7007	565	4808	1634	
Bagharki	174	96	78	9	132	42	76	34	4	30	0	
Lundki	1814	954	860	32	1638	176	966	356	10	128	217	
Sandki (Bagharki)	1778	891	887	30	1233	545	901	349	21	320	8	
Perheyarki	3566	1851	1715	46	2983	583	1771	699	101	550	48	
Walhar	2310	1242	1068	61	2015	296	1364	453	96	352	5	
Bhitari	1373	748	625	41	1050	323	670	269	32	225	12	
Phul Hadiyoon	1070	567	503	56	949	121	546	210	5	175	30	
Rebhan	3279	1758	1521	11	3067	212	1731	643	29	174	441	
Chack	1383	711	672	32	1137	245	600	271	3	226	43	
Durmano	3098	1615	1482	17	2839	259	1522	607	19	222	366	
Kohar	1476	792	684	42	1445	31	743	289	74	202	13	
Rojherli	1098	542	556	8	1070	28	684	215	1	214	0	
Shorki	2202	1134	1068	6	1797	405	1242	432	29	367	36	
Wasi sajjan (Channeri part)	522	281	242	11	229	293	258	102	0	102	0	
Veserki (Channeri part)	1176	589	587	20	1116	59	577	230	9	178	43	
Vidh (Channeri part)	748	399	349	19	722	26	403	147	4	122	20	
Dedki	1046	567	479	18	354	446	497	205	1	150	53	
Nau Abad	1406	726	680	23	1221	185	753	276	4	235	37	

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Morejhar	2542	1346	1196	27	1829	713	1300	498	29	215	254	
Dourang	954	495	458	48	877	76	472	187	3	180	4	
Rip	2721	1489	1232	52	2382	339	1330	533	74	440	19	
UC Saeedpur	34567	17957	16610	27	26791	7779	17209	6778	346	3606	2826	
Saeedpur	1660	858	802	21	1132	530	885	325	26	298	1	
Dabgeero	2398	1219	1179	28	1590	808	1212	470	22	59	389	
Kanderi	2541	1317	1224	23	2036	505	1258	498	16	313	169	
Gono	1992	1021	971	30	1657	335	1025	391	49	217	125	
Phusana	2515	1332	1183	32	2076	439	1200	493	15	359	119	
Dhoro nero	2503	1291	1211	37	2022	481	1236	491	2	478	10	
Kotri	2540	1352	1188	24	2023	516	1259	498	1	497	0	
Channeri	2564	1277	1288	38	2336	228	1273	503	58	213	232	
Mughal Hafiz	2834	1496	1338	10	2567	267	1623	556	7	285	264	
Golari	2537	1327	1210	22	1723	814	1204	497	64	400	34	
Dabharo	3393	1724	1670	26	2004	1390	1667	665	33	29	604	
Nar	3795	2033	1762	37	3071	725	1822	744	36	278	430	
More	1663	851	812	28	1295	368	743	326	0	1	325	
Ghahiki	1631	859	773	23	1259	372	801	320	18	140	162	
UC Rajo Khanani	31262	16173	15090	24	20477	10785	15467	6130	980	2632	2396	
Shaikhani (Rajo Khanani)	8109	4156	3953	38	4949	3161	4026	1590	678	510	402	
Chachari	2071	1087	985	21	1118	954	970	406	15	205	187	
Dato Jamali	1344	716	628	22	1089	255	667	264	36	167	60	
Khanoth	2708	1389	1320	28	2526	182	1454	531	12	137	272	
Manaheki	2085	1071	1014	15	1137	948	1033	409	35	299	75	
Vidh	1592	802	790	20	923	669	796	312	25	187	100	
Sajar pur	1923	983	940	32	1407	516	929	377	71	269	37	
Sasuri	1785	936	849	16	977	808	859	350	34	50	266	
Baghalani	2107	1136	971	11	1587	520	1066	413	41	15	357	
Sajjan	992	519	473	25	787	205	436	194	8	95	92	
Bhuro-1	1240	640	600	36	833	407	649	243	26	46	171	
Bhuro-2	1448	748	700	25	1049	399	760	284	62	152	70	
Bhuro-3	755	384	371	12	105	651	330	148	3	144	1	
Bhuro-4	1614	844	770	9	955	659	769	317	2	239	75	
Raheji	1487	762	726	43	1035	452	723	292	14	118	160	
Taluka Shaheed Fazli Rahu(Golarhi												
UC Khorwah	33277	17696	15581	20	30397	2880	17789	6050	589	4422	1040	
Khorwah	5643	3013	2630	37	5259	384	3004	1026	303	587	136	
Lakhi	1804	944	861	4	1344	461	1000	328	0	303	25	
Nohiki	1036	534	502	28	987	48	499	188	6	166	16	
Narboot	1770	908	862	12	1411	359	935	322	3	302	17	
Makhdoom Pur	3342	1874	1468	25	3050	292	1981	608	23	582	2	
Gojri	1737	934	804	22	1736	1	895	316	22	230	64	
Walhar	1551	840	712	16	1477	75	930	282	18	249	15	
Sodhki	923	461	462	14	920	2	496	168	0	140	27	
Chakri	842	458	384	21	821	21	409	153	8	136	9	
Fatehpur	1939	1107	832	14	1765	174	964	352	18	99	235	
Khairyoon	3113	1609	1504	15	2817	297	1720	566	58	429	79	
Mar1wasayo -1 &2	5154	2700	2454	30	4588	566	2681	937	142	660	135	

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Rari-1	2409	1277	1133	29	2409	0	1297	438	11	142	285	
Dandho	2013	1038	975	13	1813	200	979	366	14	351	1	
UC Golarchi	34263	18453	15809	22	26337	7926	18880	6230	1695	3733	802	
Barodari	1868	991	877	25	1634	233	864	340	44	278	18	
Circle I & II Town shaheed fazil	17667	9543	8124	47	12532	5135	9288	3212	1470	1361	381	
Maro jat	2707	1401	1306	25	2353	354	1351	492	15	410	67	
Golarchi	3122	1741	1381	9	2720	402	1641	568	51	495	21	
Kadh	719	390	329	8	652	67	396	131	8	121	2	
Kheersari	1046	589	457	14	962	83	577	190	7	80	104	
Naukarji 1&2	7133	3799	3334	30	5483	1650	4763	1297	236	876	185	
UC Dubi	26111	14053	12058	19	22185	3926	14054	4747	379	3924	445	
Agri	2423	1275	1148	16	1955	468	1347	441	94	343	3	
Dubi	1542	800	743	11	1341	201	806	280	25	218	37	
Dasarki	2019	1041	979	13	1990	30	1134	367	9	354	5	
Khairyoon	1909	1062	847	6	1817	92	1063	347	16	317	15	
Samki	1156	664	492	20	1109	47	669	210	12	184	14	
jhol	2337	1278	1059	22	2021	317	1293	425	26	396	3	
Kahiki	1236	667	569	37	853	383	645	225	40	163	21	
Rip	2016	1080	935	41	1366	650	1100	366	75	234	57	
Khathar	1186	672	514	2	604	582	602	216	3	203	10	
Udherki	496	255	241	11	320	175	242	90	0	90	0	
Bukerani	1736	954	782	32	1663	73	899	316	10	285	21	
Mulki	1637	857	780	30	1554	83	894	298	12	206	80	
Dadharko	2587	1391	1196	12	2165	422	1385	470	20	427	23	
Chach	878	489	389	15	765	113	422	160	9	139	12	
Phitoon	823	450	374	15	772	51	417	150	0	150	0	
Miano Karath	2130	1119	1011	15	1891	238	1135	387	20	235	133	
UC Tarai	26594	13811	12783	21	19227	7615	13462	4835	395	3375	1065	
Tarai	5391	2820	2571	32	4395	996	2751	980	141	578	261	
Kand	2543	1290	1253	27	1320	1223	1247	462	51	332	79	
Kandhar Jagir	2280	1143	1138	27	1834	446	1172	415	28	275	112	
Shaikhano	2602	1386	1216	11	1366	1236	1485	473	10	256	207	
Nari	1554	786	767	10	890	912	775	282	7	275	0	
Aseli	2515	1326	1188	21	1763	751	1287	457	52	398	7	
Patihal	3115	1605	1510	26	2558	556	1474	566	59	484	23	
Minyoon	1572	822	750	15	750	822	802	286	8	258	20	
Sutiyari	1721	890	831	27	1721	0	876	313	9	291	14	
Kheero Bhatara	1777	957	820	8	1253	524	866	323	15	47	261	
Surhadi	1524	785	739	22	1375	149	728	277	15	173	90	
UC Rahuki	26098	13756	12342	16	16191	9908	13080	4745	394	3598	752	
Rahuki	5205	2675	2530	20	2809	2396	2608	946	124	590	232	
Gunhwrah	3179	1652	1528	19	1010	2170	1518	578	116	402	60	
Khudh	1523	856	667	18	1002	520	779	277	13	257	7	
Laskkarani	1813	939	874	10	709	1104	849	330	39	281	11	
Padhryoon	1616	851	765	9	738	878	756	294	6	284	4	
Kakejani	3796	2071	1725	14	2948	848	1908	690	63	347	281	
Kandiyari	2695	1460	1234	6	2509	186	1385	490	1	471	18	
Mitho Dabo	1750	918	832	44	1150	600	873	318	3	258	57	
Kharo Dabo	3342	1690	1652	3	2271	1071	1773	608	14	511	82	

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Jhabero	1180	645	535	16	1044	135	631	215	6	204	5	
UC Gharo	29869	15865	14004	19	24100	5769	15075	5431	340	4365	726	
Gharo	2396	1292	1104	12	1662	734	1171	436	4	401	30	
Akai	2081	1104	977	27	1289	792	945	378	49	314	16	
Koryani	1811	948	863	7	1551	260	951	329	4	182	143	
Malirah	878	453	425	16	668	210	448	160	5	123	31	
Kharach	2152	1151	1001	16	1658	494	1146	391	11	354	26	
Salehabad	2444	1357	1087	17	2235	209	1278	444	16	410	18	
Githo	3064	1600	1464	11	1931	1133	1554	557	7	533	17	
Lorhada	2389	1284	1105	27	1622	767	1241	434	30	403	1	
Jakheji 1&2	4617	2450	2167	16	3881	736	2327	840	6	728	106	
Akri Jgir	1714	892	822	27	1452	262	890	312	0	48	264	
Taj Hadi	1767	945	822	27	1664	103	863	321	3	318	0	
Jhole 5	4555	2389	2166	25	4487	68	2260	828	197	539	92	
UC Ahmed Rajo	31778	17024	14754	19	30286	1492	16179	5778	274	3757	1747	
Ahmed Rajo I	1862	1022	840	18	1850	11	938	338	5	326	7	
Ahmed Rajo II	1623	857	766	33	1602	21	924	295	3	19	274	
Ahmed Rajo III	257	134	123	2	133	124	137	47	0	0	47	
Ahmed Rajo IV	1302	690	611	12	1302	0	654	237	0	0	237	
Ahmed Rajo V	1452	800	652	18	1451	1	679	264	0	256	8	
Ahmed Rajo VI	329	165	164	3	328	1	166	60	0	5	55	
Rari II	913	502	411	18	907	6	448	166	2	9	155	
Rari III	1914	1030	884	15	1880	34	986	348	6	246	96	
Rari IV	713	407	306	19	713	0	343	130	0	130	0	
Rari-V	539	293	246	9	539	0	296	98	1	0	97	
Jhole 1	1239	664	575	43	1236	4	600	225	58	138	29	
Jhol 2	1241	672	569	17	1232	9	606	226	7	155	64	
Jhole 3	1609	843	766	30	1498	112	898	293	59	185	48	
Jhole 4	1259	705	554	29	1185	75	677	229	41	179	10	
Jhole 6	1432	755	677	34	1401	31	676	260	27	228	5	
Gurhari 1	899	477	422	12	825	75	461	163	2	11	150	
Gurhari 2	909	451	458	17	909	0	427	165	0	165	0	
Girhari3	2542	1376	1166	13	2455	87	1313	462	29	377	56	
Girhari 4	2439	1303	1136	27	2382	57	1218	443	25	384	34	
Girhari 5 (VESUS)	1829	984	846	11	1437	392	946	333	0	331	1	
Akri I	3897	2039	1858	23	3563	334	1972	709	19	350	339	
Akri 2	1578	854	724	23	1460	118	815	287	5	279	3	
UC Kario Khanwar	29933	15956	13977	16	19624	10309	15123	5442	993	3309	1140	
Kario I & II	2035	1077	959	14	1051	985	1031	370	19	280	71	
Kario TOWN (Karioghanwar	5962	3147	2815	29	4000	1962	3069	1084	704	303	77	
Lakri	2050	1066	985	13	928	1123	1082	373	27	266	79	
Bari	2619	1401	1218	14	2152	467	1437	476	25	260	191	
Khebrani	6227	3306	2921	18	4158	2069	3035	1132	202	765	165	
Karo Mehro	2007	1046	961	14	1167	840	990	365	12	310	44	
Mahi Leghari	1935	1000	935	28	1677	258	974	352	21	148	183	
Arazi	2017	1118	899	10	489	1528	1018	367	0	362	5	
Chachari	1709	965	744	11	1180	529	805	311	5	52	254	

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Bariji	704	384	320	7	574	130	378	128	1	125	2
Machhari	2243	1212	1031	18	1843	400	1079	408	13	377	18
Gulshan	425	236	189	10	406	19	226	77	4	67	6
Matli Tehsil											
UC Mathli 1	40130	20925	19205	36	29584	10546	20673	7166	5009	956	1201
Circle I	17426	9140	8286	43	12314	5112	8851	3112	1992	596	524
Circle II	19729	10197	9532	66	15678	4052	10342	3523	3004	177	343
Matli	994	545	449	14	620	375	486	178	29	32	116
Kathore	1981	1042	939	22	973	1008	993	354	45	116	193
UC Matli II	15659	8096	7563	43	13197	2462	7751	2796	1448	948	400
Circle III	13383	6936	6447	63	11946	1437	6605	2390	1395	728	267
Doomani	2276	1160	1115	23	1251	1025	1146	406	76	208	122
UC Malhan	28604	15009	13595	31	23946	4658	14021	5108	1391	2350	1367
Alipur	1562	824	737	26	1464	98	81	279	64	82	132
More	2442	1273	1168	17	1612	829	1185	436	124	201	111
Malhan	2502	1289	1213	60	2133	369	1309	447	169	253	25
Udehjani	3041	1610	1431	35	2733	309	1558	543	158	195	190
Rahi	3313	1722	1591	23	3125	188	1802	592	37	185	370
Dero Mohbat	1813	985	828	35	1299	514	947	324	132	128	64
Keenjhar	2848	1481	1367	27	2356	492	1423	509	44	423	42
Mangria	4701	2517	2184	31	4525	175	2363	839	432	191	217
Barasar	919	465	453	17	564	355	483	164	31	108	25
Khorwah	1974	1039	935	20	1357	617	1078	353	63	184	105
Banbhnai	1800	920	880	45	1505	294	959	321	95	227	0
Jarki	1691	885	807	39	1273	418	834	302	77	139	86
subtotal	28604	15009	13595	31	23946	4658	14021	5108	1302	2347	1459
UC Phalkara	33845	17654	16191	21	26375	7000	17873	6044	1894	2234	1855
Baran	5346	2775	2571	18	4113	1233	2767	955	413	255	287
Jehejani	2777	1463	1314	31	1473	1304	1484	496	210	219	7
Lanjhari	1203	630	572	12	1036	166	649	215	18	72	124
Padhar	1597	820	777	8	912	685	808	285	17	259	9
Ghari Lundi	3548	1856	1691	20	3079	469	1831	633	331	74	229
Chorl Tani	3747	1920	1827	35	3352	395	2009	669	281	157	231
Sehrat	3632	1873	1760	27	2479	682	1824	649	159	463	27
Dabhi	644	334	310	17	478	166	337	115	24	38	54
Khud Khuhi	2737	1445	1292	8	2455	283	1588	489	74	286	129
Vanjhi	1241	663	578	19	1095	146	701	222	51	90	80
Kand Rahki	3214	1652	1562	25	2446	768	1630	574	151	120	304
Khorari	2298	1232	1066	20	2088	210	1241	410	63	131	216
Sunro	1861	991	870	30	1367	494	1003	332	110	70	152
UC Manik Laghari	32346	16786	15560	25	24955	7391	16763	5776	939	1516	3321
Lundano	3489	1762	1727	18	2592	896	1828	623	179	51	393
Khachar	4493	2325	2168	15	3981	512	2385	802	62	200	541
Talho	1796	976	820	21	1685	111	1179	321	9	57	255
Aghamano	6995	3604	3391	45	5572	1423	3614	1249	229	67	953
Daro Sendi	5947	3095	2851	31	4539	1407	3080	1062	167	281	614
Chhan Gangha	4843	2497	2346	23	4195	648	2359	865	227	245	393
Gharibhari	4783	2526	2257	21	2390	2393	2318	854	60	590	204
UC Ghulam Shah Leghari											

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Khari	4768	2404	2364	24	3649	1119	2284	851	45	98	708	
Sikni	1555	780	775	21	1114	440	764	278	7	20	250	
Pabni	2139	1153	986	30	1607	532	975	382	19	10	354	
Dekaro	2917	1521	1397	17	1793	1125	1464	521	42	354	125	
Deyal	2989	1556	1433	19	1591	1398	1492	534	73	86	375	
Kahiri	1844	996	848	20	1463	382	975	329	34	57	239	
Paee	2864	1485	1379	27	2247	617	1694	512	17	97	397	
Chau Gazo	4577	2447	2129	18	3298	1279	2332	817	133	118	567	
subtotal	23654	12342	11312	22	16761	6893	11981	4224	386	864	2975	
UC Thari												
Gharo Sarmast	2875	1510	1365	33	2247	628	1489	513	138	87	289	
Bhoro Rayati	2360	1214	1146	24	2043	317	1267	421	133	135	154	
Bhoro Jagir	1489	774	715	18	813	676	794	266	7	218	41	
Dadhar	4662	2393	2268	33	3182	1479	2286	832	130	95	608	
Kari Muhammad Ali	2995	1539	1456	31	2129	866	1357	535	81	48	406	
Phulejani	4083	2148	1935	28	2768	1316	1975	729	153	216	360	
Thari	3234	1661	1574	44	2629	605	1694	578	256	108	213	
Seeta	876	481	396	5	372	504	412	156	4	86	67	
Khathore	3313	1652	1661	27	2101	1212	1697	592	153	194	245	
Gorano	2079	1052	1027	23	575	1504	1028	371	42	155	175	
subtotal	27967	14425	13542	27	18860	9107	13999	4994	1110	1321	2564	
UC Tando Ghulam Ali												
Tando Ghulam Ali Town	16558	8640	7917	55	12100	4458	8563	2957	1399	692	866	
Ghulam Ali Deh Tando	0	0	0	0	0	0	0	0	0	0	0	
Sun	3884	2033	1850	19	2525	1359	2067	694	63	423	208	
Dariari	3287	1790	1497	17	1188	2099	1583	587	41	506	40	
subtotal	23729	12464	11265	30	15813	7916	12213	4237	1462	1656	1120	
UC Halepota												
Roharo	2469	1247	1221	15	1654	815	1289	441	25	49	367	
Labni	1742	889	853	33	1035	707	969	311	36	93	182	
Chakra	2174	1115	1059	22	1296	879	1105	388	13	340	35	
Moradhi	1941	996	945	25	1276	665	995	347	18	27	302	
Dasti	4273	2272	2001	26	3332	941	2131	763	20	307	436	
Sando	3747	1975	1771	36	1968	1778	1994	669	179	57	433	
Tali	4008	1854	2154	36	2634	1374	2405	716	46	239	431	
Chaan Sorani	2784	1491	1293	14	1014	1770	1396	497	46	313	138	
subtotal	23138	11840	11298	26	14208	8930	12283	4132	379	1520	2233	
UC Dumbalo												
Dumbalo	4092	2085	2007	30	2614	1478	2011	731	277	107	347	
Kalwari	2941	1428	1513	34	1771	1170	1583	525	13	105	407	
Lorar	2410	1258	1152	36	1637	773	1172	430	120	184	126	
Kharyoon	1643	832	812	37	1036	607	859	293	59	133	101	
Bhadari	2407	1224	1184	15	1256	1152	1213	430	65	15	350	
Gopalo	3811	2012	1800	26	2347	1464	1981	681	122	214	344	
Gujo	5196	2602	2595	26	3331	1866	2906	928	120	208	600	
Wagherji	3159	1624	1535	30	1846	1313	1526	564	53	97	414	
subtotal	25660	13063	12597	29	15838	9822	13250	4582	835	1073	2674	

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UC Budho Qambrani												
Amarlo	2897	1575	1323	46	1917	980	1376	517	176	180	162	
Arain	1710	892	819	46	998	713	892	305	88	136	82	
Vee	2632	1366	1266	46	1407	1225	1337	470	97	91	282	
Gharo	3214	1648	1566	41	2259	955	1743	574	191	144	239	
Kangri	1113	577	536	34	939	174	519	199	51	49	99	
Khabarlo	2140	1098	1042	31	1206	934	1097	382	54	97	231	
Sore	912	488	424	49	675	237	504	163	54	65	44	
Kari Saindad	1760	932	828	26	1481	279	1049	314	93	84	137	
Khori	1738	922	816	25	1428	311	922	310	40	57	214	
Seenhore	1741	850	890	18	1358	383	865	311	14	46	250	
Dambyari	3234	1667	1568	37	2014	1220	1632	578	38	505	35	
Karyano	1953	1014	939	39	1678	274	972	349	25	16	308	
Sorhadi	4068	2054	2014	29	2309	1760	1978	726	59	556	111	
Junejo	1945	1001	943	26	1413	531	936	347	37	110	201	
subtotal	31058	16083	14975	35	21082	9976	15821	5546	980	2261	2306	
UC Haji Sawal												
maban	1731	867	865	33	1314	417	920	309	46	180	83	
Baneero	1973	1056	916	18	1025	948	1013	352	31	182	139	
Lakhadi	1796	932	865	16	1602	194	963	321	62	207	52	
Delo Dero	1122	551	571	6	1121	1	491	200	8	180	13	
Khudi	1806	965	841	13	1551	254	905	322	6	68	249	
Nathu	2621	1413	1207	22	1612	1008	1281	468	56	355	57	
Hanjhar	3443	1774	1669	25	2654	789	1863	615	76	486	53	
Haji Karam Ali	2173	1194	979	11	1803	370	1203	388	155	81	152	
Beedero	1738	914	824	13	667	1072	837	310	19	264	27	
Panjanhiso	2541	1303	1238	39	1811	729	1333	454	160	210	84	
Talhiyari	1945	1016	928	19	1565	379	1052	347	40	219	89	
Chhan Sorrani	1755	900	855	24	1324	431	1027	313	88	225	0	
subtotal	24643	12885	11758	20	18050	6593	12889	4401	763	2608	1030	
Tando Bago Tehsil												
UC Chabralo												
Adoori	1858	1006	852	17	1581	277	924	357	0	306	52	
Potho	1302	698	604	21	693	609	646	250	4	240	6	
Pothonar	1447	791	657	13	429	1018	716	278	1	261	16	
Charvo	3289	1727	1562	23	2360	928	1648	632	24	516	93	
Jesar	1653	886	767	26	1275	379	868	318	6	221	91	
Kang	2909	1514	1394	29	2584	324	1527	559	0	476	83	
Soneri	1925	980	945	10	1840	85	1055	370	6	306	58	
Doomhar	2860	1517	1343	12	2553	306	1617	550	15	477	58	
Toori	2139	1106	1033	22	1451	688	1011	411	11	384	17	
Duz	3298	1725	1572	22	2674	623	1700	634	5	593	36	
Machandi	2700	1382	1318	19	1208	1492	1318	519	64	411	44	
Dando	1501	749	752	22	1304	197	752	289	7	132	15	
subtotal	26880	14080	12800	20	19953	6927	13782	5169	145	4326	591	
UC Pahar Mari												
Khirdahi Rayati & Jagir	5255	2672	2583	50	3986	1268	2695	1011	293	685	33	
Rajori-1	1531	818	713	29	1303	228	783	294	28	243	24	
Thoorki	2593	1376	1217	26	2278	315	1425	499	6	416	76	

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Pheto Qambrani	1374	738	636	18	1003	371	637	264	10	242	12
Sadiq	2861	1494	1367	45	2462	399	1339	550	17	433	100
Hamierah	2878	1488	1389	35	2704	174	1501	553	47	292	214
Kak 1	3339	1773	1566	20	3240	99	1671	642	23	416	204
Kak 2	1566	854	712	61	1423	143	811	301	6	36	259
Kak 3	2543	1373	1170	29	2127	416	1379	489	32	421	36
Soonhar	2090	1114	976	33	1984	106	975	402	47	310	45
Machori	1243	626	617	9	824	418	600	239	5	219	15
subtotal	27271	14325	12947	32	23334	3937	13817	5244	498	3683	1063
UC Khalifo Qasim											
Pano Nau	1651	883	767	19	1312	339	928	317	0	312	6
Moorhadi	712	389	323	21	712	0	382	137	1	4	132
Unarki	1711	863	849	39	1607	104	908	329	16	187	126
Chhan	1720	874	846	18	1571	149	894	331	5	299	27
Gujo	2446	1302	1145	23	2128	318	1186	470	10	8	452
Rajori-2	2352	1500	852	51	1760	592	1401	452	26	418	9
Hanjar Hadi	2072	1133	939	28	1667	404	1042	398	19	372	7
Roopharo	2307	1223	1084	23	2141	205	1093	444	44	393	7
Khadi Adit	1419	765	654	18	1245	174	762	273	0	261	12
Katal	2324	1197	1127	36	2069	255	1196	447	4	19	424
Toor yaro	886	491	395	37	724	162	427	170	5	165	0
Chhachh	1423	771	652	8	922	501	680	274	2	270	1
Gahaji	1818	937	881	18	1773	45	923	350	16	287	47
Dhanjol	3968	2077	1891	22	2168	1800	1970	763	48	669	46
Jhalmori	1809	923	886	16	1691	118	955	348	2	262	84
Liar	941	488	453	15	941	0	507	181	0	171	10
Khurai	2219	1161	1057	45	1685	533	1131	427	106	278	43
Subtotal	31779	16978	14801	26	26118	5700	16386	6111	287	4395	1430
UC Khoski											
Khoski I	8852	5020	3832	77	8199	653	4634	1702	1183	386	134
Khoski 2	12364	6589	5775	27	7507	4857	6093	2378	283	1320	775
Muhana	2494	1286	1208	11	2365	129	1290	480	10	330	140
Hingojani	2363	1279	1084	12	1997	366	1232	454	17	0	437
Veei Behader	1176	612	564	38	806	370	551	226	24	146	57
Moro	3572	1899	1673	50	3285	287	1751	687	41	637	8
Khalso	2737	1416	1321	26	2060	677	1303	526	16	490	21
Beeroveeran	1864	1024	841	26	1718	147	877	359	5	350	4
Subtotal	35422	19125	16297	33	27937	7485	17732	6812	1292	3884	1636
UC Dai Jurkas											
Dei Jurkas	8896	4711	4185	31	5922	2974	4422	1711	406	709	596
Thuhai	1545	793	752	25	615	930	744	297	26	213	48
Dubni	4237	2256	1982	25	3196	1042	2185	815	92	94	629
Katadho	7088	3773	3316	8	4143	2945	3498	1363	37	507	818
Akore	4756	2501	2256	5	2891	1866	2399	915	52	840	22
Khai Bero	3433	1951	1482	2	2709	724	1849	660	44	581	36
Tayab Sahito	3254	1709	1545	28	2575	679	1796	626	94	203	329
UC Pangrio	34768	18140	16628	27	27484	7284	16958	6686	923	2263	3501
Haarh	1514	814	700	19	1325	189	769	291	7	246	37
Phahyari	10034	5193	4841	56	8376	1658	4941	1930	884	488	558

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Messadi	3030	1552	1478	27	2493	537	1385	583	15	440	127
Amar Nar	3383	1822	1561	23	3165	218	1756	650	7	485	158
Char	2319	1163	1156	23	1685	633	1243	446	51	163	233
Wag Dahi	3755	1955	1800	27	2833	922	1710	722	20	43	658
Bangar	4301	2288	2013	23	3107	1194	2074	827	44	55	728
Ahmedani	2816	1459	1357	20	1328	1488	1286	542	4	187	351
Dharo Kakanoro	3617	1895	1722	27	3173	444	1794	696	10	89	597
UC Khairpur	36507	19144	17363	27	24543	11964	18335	7021	487	1254	5279
Sangi	3697	2009	1688	20	2114	1582	1910	711	13	336	362
Gaad	3050	1525	1526	39	2731	319	1599	587	79	31	477
Kapoori	2579	1334	1245	23	1568	1011	1326	496	23	79	393
Thorlo	1881	1013	868	13	1410	471	931	362	2	7	352
Mattu	1333	689	644	30	1181	152	684	256	9	55	192
Bherioon	3366	1706	1660	27	1974	1392	1709	647	58	22	567
Girathari	2820	1499	1321	17	1374	1446	1385	542	1	32	509
Khairpur	5211	2786	2425	26	3394	1817	2530	1002	118	171	714
Khana	5802	3039	2763	36	3930	1872	2889	1116	102	301	714
Piror	1615	800	815	32	997	618	854	311	30	18	263
Bohri	1774	953	821	31	1214	560	872	341	28	49	265
Phul	1647	873	774	40	1252	395	837	317	17	53	247
Chaubandi	1733	919	814	21	1405	328	810	333	18	100	215
UC Khadro											
Bagh Shah Mir	2139	1133	1006	23	1615	524	1046	411	42	367	2
Dei	3120	1647	1473	41	2193	927	1597	600	211	351	38
Khirol	881	467	413	24	774	107	447	169	6	160	3
Khureri	1790	940	850	32	1328	462	940	344	4	206	135
Kang Pir	2112	1101	1011	14	1830	282	1105	406	3	347	56
Hotheir	2146	1121	1025	31	1795	352	1096	413	15	396	3
Chandeli-1	2815	1514	1300	29	2537	278	1465	541	47	453	41
Chandeli-2	6066	3134	2932	38	4941	1125	3117	1167	38	90	224
Chandeli-3	1561	805	756	55	1309	251	718	300	26	133	141
Khadharo	3573	1903	1670	22	2247	1326	1767	687	37	635	15
Mena	1276	649	627	21	1115	161	630	245	4	219	23
subtotal	27477	14415	13063	30	21682	5795	13927	5284	412	3209	708
UC Dadah											
Dadah	1746	900	846	27	1479	267	895	336	49	8	278
Kamaro	585	294	291	27	505	80	291	112	0	34	79
Aliabad	753	397	357	40	624	129	398	145	4	85	56
Digh	2013	1067	945	19	1620	393	1051	387	6	69	312
Changoon	3157	1680	1477	29	2819	339	1666	607	1	177	429
Khari Kabrio	2298	1255	1043	19	2060	238	1177	442	6	353	83
Khoro	1441	774	667	23	1356	85	721	277	15	235	27
Kariano	1571	819	752	41	1218	353	776	302	25	75	202
Pherho	5530	2934	2596	17	3809	1722	2931	1064	114	345	604
Belaro	985	511	474	21	985	0	569	189	6	99	85
Akil	2031	1049	981	18	1474	556	1026	390	10	82	299
Dambrlo	1759	915	843	17	1727	32	858	338	0	108	230
Chawra	1455	774	681	17	1346	109	868	280	0	1	279
Sehayo	1616	843	773	15	1288	328	784	311	0	149	162

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Alipur	2716	1427	1289	21	2252	464	1331	522	18	32	472
subtotal	29655	15640	14014	23	24561	5094	15342	5703	244	1826	3633
UC Tando Bago											
Khado	2543	1288	1255	24	1809	734	1258	489	37	407	45
Pir Misry	1591	809	783	17	1385	206	776	306	12	204	90
Bukhaso Kaloi	1794	961	833	19	1138	655	892	345	15	330	0
Chhabralo	2359	1235	1124	15	2224	135	1214	454	28	423	3
Rail Tarai	872	460	412	20	802	70	418	168	3	14	151
Motna	5260	2704	2556	31	4016	1244	2643	1012	295	674	43
Subtotal	14419	7455	6963	21	11375	3044	7203	2773	386	2055	331