

# **Disaster Risk Management Plan**

## **District Badin Government of Sindh**

November, 2008



**District Disaster Management Authority**

DCO Complex, Karachi Road, Badin  
Ph: 0297-862384/862418 Fax: 0297-862418

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Technical Assistance: National Disaster Management Authority (NDMA)  
United Nations Development Programme (UNDP)

Conceptualized by: Mr. Zubair Murshed

Planning Consultant: Mr. Fida Soomro

Reviewed & Edited by: Mr. Shalim Kamran Dost

The Plan is available from:

- a. District Disaster Management Authority  
DCO Complex, Karachi Road, Badin  
Phone: 0092 297 862384 / 862418  
Fax: 0092 297 862418
- b. Provincial Disaster Management Authority  
Block 79, Board of Revenue,  
Saddar, Karachi  
Phone: 0092 21 9202630  
Fax: 0092 21 9203407

The Plan can be downloaded from:

<http://www.ndma.gov.pk>  
<http://www.undp.org.pk>



# Table of Contents

Foreword	7
Message from District Nazim	9
Message from District Coordination Officer	11
Basic terms and concepts of Disaster Risk Management	13
Vision, mission and objectives	17
Acknowledgment	19
List of Acronyms	21
Amendments to the Plan	23
	25
1.1 Geography	25
1.2 Demography	25
1.3 Economy	26
1.4 Shelter	27
1.5 Society	27
1.6 Administrative system	28
	29
2.1 Vulnerable areas	31
2.2 Hazards	32
2.3 High priority hazards	32
2.3.1 Cyclones	32
2.3.2 Floods	33
2.3.3 Left Bank Outfall Drain (LBOD)	33
2.3.4 Sea intrusion	33
2.4 Medium priority hazards	34
2.4.1 Heavy rainfall	34
2.4.2 Industrial waste	34
2.5 Disaster trends	34
2.6 Institutional capacity	35
2.7 Review of contingency plan	36
	37
3.1 Institutional arrangements	37
3.1.1 Establishment of District Emergency Operations Centre	37
3.2 Risk assessment	39

3.3	Training, education and awareness	40
3.4.	Community based Disaster Risk Management	41
3.5.	Multi Hazards Early Warning System	42
		45
4.1.	District Disaster Management Authority	45
4.1.1.	Key functions of District Disaster Management Authority as specified in National Disaster Management Ordinance 2006	45
4.1.2.	Taluka structures and responsibilities	46
4.1.3.	Union Council	47
4.2.	Responsibilities and duties of key stakeholders	48
4.2.1.	General responsibilities	48
4.2.2.	Specific responsibilities	49
4.2.2.1.	Agriculture department	49
4.2.2.2.	Army	49
4.2.2.3.	Communication and Works	50
4.2.2.4.	Community Development department	50
4.2.2.5.	Education department	51
4.2.2.6.	Food department	51
4.2.2.7.	Health department	51
4.2.2.8.	HESCO/WAPDA	52
4.2.2.9.	Irrigation/Drain	52
4.2.2.10.	Police department	53
4.2.2.11.	Revenue department	54
4.3.	Academic and research institutions	55
4.4.	Banks	55
4.5.	Community Based Organizations	55
4.6.	Edhi Foundation	56
4.7.	Insurance	56
4.8.	Media	56
4.9.	Non-Government Organizations	57
4.10.	Pakistan Red Crescent Society	58
4.11.	Private sector (business groups, associations)	58
4.12.	Religious organizations	58
4.13.	Mid Term Action Plan	58
		61
5.1.	Standing Operating Procedures (SOPs)	61
5.1.1.	District Disaster Risk Management Plan	61

5.1.2.	District Disaster Management Authority	61
5.1.3.	District Emergency Operations Centre (DEOC)	61
5.2.	Warning mechanism	62
5.3.	Warning dissemination mechanism	62
5.4.	Public information	62
5.5.	Request for assistance	62
5.6.	Agriculture department	62
5.7.	Health department	63
5.8.	Irrigation and Drain	63
5.9.	Police	63
5.10.	Revenue department	63
5.11.	Works and Services	63
5.12.	Information management	64
5.13.	Simulation and drills	64
		65
		67
<b>Part I:</b>	<b>District Information</b>	
1.	Map of Badin	69
2.	Details of medical facilities	71
3.	List of police stations/police posts	73
4.	Details of veterinary services	74
5.	Details of government schools/colleges	75
6.	Radio, TV and newspaper contacts	77
7.	List of NGOs in the district	79
8.	Machinery & equipments available in the district	80
9.	List of the most vulnerable villages along LBOD	82
10.	List of the villages affected by Cyclone A-2	86
<b>Part II:</b>	<b>Emergency Response Structure</b>	
11.	List of control rooms used in emergency	88
12.	Departmental focal points for emergency response	89
13.	Specialized teams available and their capacities	90
14.	Volunteers	92
15.	List of emergency supplies	93
16.	Contact of emergency suppliers	94
<b>Part III:</b>	<b>Miscellaneous</b>	
17.	Hazard ranking of the district	95



## Foreword

The local-level planning lies at the heart of successful disaster risk management. It enables the district authorities, communities and other stakeholders to coherently work for sustainable development through mitigation and prevention of hazards.

With this broad objective in mind and in line with the requirements of the National Disaster Risk Management Framework, the Provincial Disaster Management Authority (PDMA) initiated the process of developing District Disaster Risk Management Plans (DDRMPs).

As a result of NDMA's guidance and technical assistance from UNDP, we have been able to develop the DRMP of Badin district after a consultative and participatory process. The officers of various line departments, elected representatives, NGOs and hazard-prone communities shared vital information and gave their valuable input during the planning exercise.

The Plan, among other aspects, clearly defines roles and responsibilities in pre, during and post disaster phases of all stakeholders at the district level. It also outlines Standard Operating Procedures (SOPs) for ensuring efficient and coordinated emergency response. Importantly, it provides medium and long-term strategies and measures for disaster risk management. In short, the Plan aims to save lives and reduce vulnerabilities of people; and protect livelihoods and infrastructure.

The PDMA is committed to implementing the Plan by mobilizing required funds and enhancing technical capacities of district stakeholders.

Keeping in view the changing patterns of natural and human-induced hazards, the Plan will be reviewed and revised on annual basis. To make it more useful and practical, lessons and experiences will be documented and analyzed during the implementation process.

I am grateful to Lt. Gen (Rtd.) Farooq Ahmed Khan, Chairman National Disaster Management Authority (NDMA) and Mr. Mohammad Zafar Iqbal, Assistant Resident Representative, United Nations Development Programme (UNDP) for supporting the development of the plan. We are thankful to Mr. Zubair Murshed, National Disaster Reduction Advisor, for overall conceptualization and steering the process for development of the plan. Special thanks are due to our planning expert Mr. Fida Soomro for his untiring efforts in preparing a promising document through an extensive process and Mr. Shalim Kamran Dost for reviewing and editing the plan.

I hope that all the stakeholders would follow the strategic directions given in the Plan to make Badin district safer from disaster risks.

*Ashfaq Memon*



## Message from the District Nazim

District Badin is one of the key districts of Pakistan which contributes to the national economy in the shape of oil, gas and sea products. Despite of such valuable deposits, the district is marginalized and the most vulnerable districts. The major reason behind its vulnerability is the frequent occurrences of natural as well as human induced disasters. During cyclone 'A-2 on May 19<sup>th</sup>, 1999 and flood of 2003, district Badin suffered the most visible and invisible damages which can not be compensated in monetary terms. The human induced disasters have also taken heavy toll on the Badin District and have impeded development process in the district.

The development of District Disaster Risk Management Plan is a good initiative taken by National Disaster Management Authority (NDMA) through the Province Disaster Management Authority (PDMA) for the marginalized coastal, rural and low profile urban areas and communities of district Badin. Being head of the district government and chairman of DDMA, as per NDMA procedure, I congratulate the team of United Nations Development Programme (UNDP) for supporting National Disaster Management Authority (NDMA) and Province Disaster Management Authority (PDMA) for the development of this important document which will reform the fate of marginalized and vulnerable segments of the society.

The Disaster Risk Management plan aims to reduce, or avoid the potential losses from hazards, assure prompt and appropriate assistance to victims of disaster, and achieve rapid and effective recovery. The Disaster Risk Management plan illustrates the ongoing process by which governments, businesses, and civil society plan for and reduce the impact of disasters, react during and immediately following preparedness, better warnings, reduced vulnerability or the prevention of disasters during the next disaster scenario.

I congratulate National Disaster Management Authority (NDMA), Province Disaster Management Authority (PDMA) and United Nations Development Programme (UNDP) for coming up with such a tangible and timely output. It is expected that this plan can be used as a benchmark for development of future plans by National Disaster Management Authority for other districts of Sindh Province.

I am, personally, confident that the initiatives taken in this District Disaster Risk Management Plan will lead towards achievement of the overall objectives of the plan.

*Anwar Ali Halepoto*  
District Nazim

Badin





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## Message from the District Coordination Officer

The Development of this Disaster Risk Management Plan for district Badin with the support of National Disaster Management Authority (NDMA), Province Disaster Management Authority (PDMA) and United Nations Development Programme (UNDP) is a remarkable achievement for the district administration Badin, which supported it from pillar to post during the development process.

The District Disaster Risk Management Plan aims at building capacities of the communities enabling them to minimize vulnerabilities at their own ends. The plan illustrates the ongoing developments in disaster risk management through which the government, business community and civil society together, takes joint ventures / measures to reduce the impacts of disasters on the fabric of society. This will be more beneficial and replicable in establishing early warning systems, preparedness programmes and adaptation of practical measures for coping up in future disaster scenarios.

I congratulate National Disaster Management Authority (NDMA), Province Disaster Management Authority (PDMA) and United Nations Development Programme (UNDP) and its teams for developing such a substantial and valuable document. I am hopeful and confident that the guidelines expounded in this plan will provide utmost benefit to the vulnerable communities of district Badin.

*Agha Wasif Abbas*  
District Coordination Officer



# Basic Terms and Concepts of Disaster Risk Management<sup>1</sup>

## Acceptable risk

The level of loss a society or community considers it can live with and for which it does not need to invest in mitigation

## Biological hazard

Biological vectors, micro-organisms, toxins and bioactive substances, which may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.

## Capacity

A combination of all the strengths and resources available within a community, society or organization that can reduce the level of risk, or the effects of a disaster. Capacity may include physical, institutional, social or economic means as well as skilled personal or collective attributes such as leadership and management. Capacity may also be described as capability.

## Capacity building

Efforts aimed to develop human skills or societal infrastructure within a community or organization needed to reduce the level of risk. In extended understanding, capacity building also includes development of institutional, financial, political and other resources, at different levels of the society.

## Climate change

The climate of a place or region is changed if over an extended period (typically decades or longer) there is a statistically significant change in measurements of either the mean state or variability of the climate for that region.

## Coping capacity

The means by which people or organizations use available resources and abilities to face a disaster. In general, this involves managing resources, both in normal times as well as during crises or adverse conditions.

## Disaster

A serious disruption of the functioning of a community or society causing widespread human, material, economic or environmental losses which exceed the ability of the affected community or society to cope using its own resources. It results from the combination of hazards, conditions of vulnerability and insufficient capacity to reduce the potential negative consequences of risk.

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<sup>1</sup> These terms and concepts have been adapted from the United Nations International Strategy for Disaster Reduction (UNISDR) list of terms and concepts. An effort has been made to simplify them for better understanding of the common reader in Pakistan.

### **Disaster risk management**

The comprehensive approach to reduce the adverse impacts of a disaster. It encompasses all actions taken before, during, and after the disasters. It includes activities on mitigation, preparedness, emergency response, recovery, rehabilitation, and reconstruction.

### **Disaster risk reduction (disaster reduction)**

The measures aimed to minimize vulnerabilities and disaster risks throughout a society, to avoid (prevention) or to limit (mitigation and preparedness) the adverse impacts of hazards, within the broad context of sustainable development.

### **Early warning**

The provision of timely and effective information, through identified institutions, to communities and individuals so that they could take action to reduce their risk and prepare for effective response.

### **Emergency management**

The management and deployment of resources for dealing with all aspects of emergencies, in particularly preparedness, response and rehabilitation.

### **Forecast**

Estimate of the occurrence of a future event (UNESCO, WMO). This term is used with different meanings in different disciplines.

### **Geological hazard**

Natural earth processes that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. For example earthquakes, tsunamis, volcanic activity and emissions, landslides, rockslides, rock falls or avalanches, surface collapses, expansive soils and debris or mud flows.

### **Hazard**

A potentially damaging physical event or phenomenon that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Hazards can include natural (geological, hydro-meteorological and biological) or induced by human processes (environmental degradation and technological hazards). Hazards can be single, sequential or combined in their origin and effects. Each hazard is characterized by its location, intensity, frequency and probability.

### **Hazard analysis**

Identification, studies and monitoring of any hazard to determine its potential, origin, characteristics and behaviour.

### **Land-Use planning**

Branch of physical and socio-economic planning that determines the means and assesses the values or limitations of various options in which land is to be utilized, with the corresponding effects on different segments of the population or interests of a community taken into account in resulting decisions. Land-use planning can help to mitigate disasters and reduce risks by discouraging high-density settlements and construction of key installations in hazard-prone areas, control of population density and expansion.

## **Mitigation**

Structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation and technological hazards.

## **Natural hazards**

Natural processes or phenomena occurring on the earth that may constitute a damaging event.

Natural hazards can be classified by origin namely: geological, hydro meteorological or biological. Hazardous events can vary in magnitude or intensity, frequency, duration, area of extent, speed of onset, spatial dispersion and temporal spacing.

## **Preparedness**

Activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.

## **Prevention**

Activities to ensure complete avoidance of the adverse impact of hazards

## **Public awareness**

The processes of informing the general population, increasing levels of consciousness about risks and how people can reduce their exposure to hazards. This is particularly important for public officials in fulfilling their responsibilities to save lives and property in the event of a disaster.

## **Recovery**

Decisions and actions taken after a disaster with a view to restoring or improving the pre-disaster living conditions of the stricken community, while encouraging and facilitating necessary adjustments to reduce disaster risk.

## **Relief / response**

The provision of assistance during or immediately after a disaster to meet the life preservation and basic subsistence needs of those people affected. It can be of an immediate, short-term, or protracted duration.

### **Resilience / resilient**

The capacity of a community, society or organization potentially exposed to hazards to adapt, by resisting or changing in order to maintain an acceptable level of functioning. Resilience can be increased by learning from past disasters for better future protection and to improve risk reduction measures.

### **Retrofitting (or upgrading)**

Reinforcement of existing buildings and structures to become more resistant and resilient to the forces of natural hazards.

### **Risk**

The chances of losses (deaths, injuries, property, livelihoods, economic activity disrupted or environment damaged) resulting from interactions between hazards and vulnerable social conditions. Risk is expressed as  $\text{Risk} = \text{Hazards} \times \text{Vulnerability}$ . Some experts also include the concept of exposure to refer to the physical aspects of vulnerability.

### **Risk assessment/analysis**

A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing vulnerability that could pose a potential threat to people, property, livelihoods and the environment.

### **Structural / non-structural measures**

Structural measures refer to any physical construction to reduce or avoid possible impacts of hazards, which include engineering measures and construction of hazard-resistant and protective structures and infrastructure.

Non-structural measures refer to policies, awareness, knowledge development, public commitment, and methods and operating practices, including participatory mechanisms and the provision of information, which can reduce risk and related impacts.

### **Sustainable development**

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of "needs", in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and the future needs. (Brundtland Commission, 1987).

### **Technological hazards**

Danger originating from technological or industrial accidents, infrastructure failures or certain human activities, which may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation. Some examples: industrial pollution, nuclear activities and radioactivity, toxic wastes, dam failures; transport, explosions, fires, spills.

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## Vision, Mission and Objectives

### Vision

Disaster resistant Badin District

### Mission

To protect human life, property and the environment from natural as well as man-made disaster through awareness, mitigation preparedness and coordination.

### Objectives

To contribute achievement of sustainable development through minimized human suffering, loss and damage to the economic infrastructure by promoting and strengthening district level capacities for disaster management

To localize disaster risk management to the maximum extent possible so as to minimize the impact on life, livelihood and environment





## Acknowledgment

District Disaster Risk Management Plan is the outcome of extensive and laborious process of consultation with District Administration, Local Government Bodies, Civil Society Organizations, media representatives and politicians who provided their valuable input during consultative meetings and individual interviews for the development of this historical document. Special thanks go to the following in this regard for support and input:

- |     |                               |                  |
|-----|-------------------------------|------------------|
| 1.  | District Nazim                | Badin            |
| 2.  | District Coordination Officer | Badin            |
| 3.  | District Police Officer       | Badin            |
| 4.  | Executive District Officer    | Revenue          |
| 5.  | Executive District Officer    | Health           |
| 6.  | Executive District Officer    | Agriculture      |
| 7.  | Executive District Officer    | Education        |
| 8.  | Executive District Officer    | CDD              |
| 9.  | Executive District Officer    | Works & Services |
| 10. | X.E.N.                        | LBOD, IRRIGATION |
| 11. | Taluka Nazim                  | Badin            |
| 12. | Taluka Nazim                  | SF Rahoo         |
| 13. | Taluka Nazim                  | Tando Bago       |
| 14. | Taluka Nazim                  | Matli            |
| 15. | Taluka Nazim                  | Talhar           |
| 16. | Taluka Municipal Officer      | Badin            |
| 17. | Taluka Municipal Officer      | SF Rahoo         |
| 18. | Taluka Municipal Officer      | Tando Bago       |
| 19. | Taluka Municipal Officer      | Matli            |
| 20. | Taluka Municipal Officer      | Talhar           |



## List of Acronyms

BRDS	Badin Rural Development Society
CP	Contingency Plan
DA	District Administration
DCO	District Coordination Officer
DDO	Deputy District Officer
DDMA	District Disaster Management authority
DDRMP	District Disaster Risk Management Plan
DG	District Government
DM	Disaster Management
DO	District Officer
DPOD	Dhoro Puran Outfall Drain
DP	Disaster Preparedness
DRR	Disaster Risk Reduction
EDO	Executive District Officer
HR	Humanitarian Response
INGO	International Non-governmental-organization
KPOD	Kadhan Pateji Outfall Drain
LBOD	Left Bank Outfall Drain
LBCAWB	Left Bank Canals Area Water Board
LGFW	Local Government Frame Work
NDMA	National Disaster Management Authority
NDMO	National Disaster Management Ordinance
NGO	Non-Governmental Organization
PDMA	Provincial Disaster Management Authority
PH	Public Health
RVCA	Risk, Vulnerability and Capacity Assessment
TMA	Taluka Municipal Administration
UNDP	United Nations Development Programme



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## Amendments to the Plan

1. Proposals for amendments or additions to this plan or comments should be made by contacting :

**District Disaster Management Authority,  
DCO Complex, Karachi Road, Badin  
Ph: 0297-862384/862418  
Fax: 0297-862418**

2. Proposed amendments which affect procedural matters will require prior review and approval by the Provincial Disaster Management Authority (PDMA).
3. The workability of this plan will be reviewed annually through conducting preparedness level reviews and drills among the stakeholders.

### Planning Authority

District Disaster Management Authority

### Approval of the Plan

District Council Badin is the competent authority to approve the District Disaster Risk Management Plan

### Amendments to the Plan

Any amendments to the plan proposed by the DDMA will be put before the District Council for approval and incorporation.

### Review and Updates

The plan shall be revised on yearly basis to incorporate any changes according to the existing situation and circumstances.



## Overview of Badin District

### 1.1. Geography

History of Badin is related with the history of Sindh in general and with lower Sindh in particular. This area was the centre of the ancient Indus Valley Civilization. Badin is a hazard prone district of Sindh province lying between Thar Desert and coastal stretches of the Arabian Sea. It is the major part of lower Sindh and Indus Delta. Badin district is situated between 24°-5° to 25°-25° north latitude and 68 21° to 69 20° east longitude. Badin district is a part of the Lower Indus plain formed by the alluvial deposits of the Indus River. Badin was created as district on 1<sup>st</sup> January 1976.

Being a vast alluvial plain, its land is very uniform in character and is not diversified by hills or rivers. The general elevation of the district is about 50 meters above sea level. Before cyclone 'A-2 in May 19<sup>th</sup>, 1999' the sea was 50 km away from main city and was connected through creeks and swamps. However, the sea water at present has reached to villages Shaikh Keerio Bhandadri, Haji Hajjam, and Golo Mandhro in union council Bhugra Memon which are 35 km away from main city.

District Badin comprises of five talukas out of which two talukas are coastal; these talukas include Matli, Talhar, Tando Bago, Badin and Golarchi. More than 86% of the population lives in rural areas. The total area of the district is 6,726 square kilometres; there are 46 union councils, 109 Tapas and 511 Dehs.

It is bounded on the north by Hyderabad district, which is prone to hazards such as urban flood, heavy rainfall, environmental issues, fires and social conflicts; on the east by Mirpur Khas, which is prone to hazards namely flood, heavy rainfall, LBOD are common hazards; and Tharparkar districts, which is prone to hazards such as drought, political strife, earthquake, flood, locust, epidemics, wind erosion and fires are common hazards; on the south by the Arabian Sea and Runn of Kutch, which also forms the international boundary with India, and on the west it is bounded by Thatta district, which is prone to hazards namely cyclones, flood, heavy rainfall, LBOD, Sea Intrusion fires and social conflicts.

The climate is moderate, and is tampered by the sea breeze which blows for eight months of the year from March to October, making the hot weather comparatively cool. The average rainfall is 125 mm normally; during the monsoon period, the sky remains cloudy with very little precipitation. The climate in summer is generally moist and humid. The cold weather in Badin starts from the beginning of November when a sudden change from the moist sea breeze to the dry and cold north-east wind brings about, as a natural consequence, an immediate fall in temperature. The maximum temperature in the hot weather does not usually exceed 40C, while the minimum reading in winter does not fall below 8C. The autumn sets in September and lasts for whole six weeks.

<sup>1</sup> Patwar circle

<sup>2</sup> Patwar Sub-circle

## 1.2. Demography

The population of Badin district was 1,138,604 in 1998 as compared to 1981 which was 7,77,000. The current population (2007) of district Badin is 12, 65,000 souls. 84% percent of the population is rural while 16% percent is urban while population density is about 170 persons per sq. km. Male and female composition was 52.5% and 47.5% of the total population respectively, in 1998. The 82% percent of the urban and 79.89% percent of the rural population is Muslim. 18.85% percent are Hindus. The literacy ratio of the district is 24.63% percent.

The male literacy ratio is nearly three times higher at 35.01% percent as compared to 12.90% percent for females in 1998. The ratio in urban areas is more than double at 44.76% percent as compared to 20.52% percent in rural areas. In rural areas male literacy is more than three times higher at 20.66% percent as compared to female literacy ratio which is only 9.23% percent. It is 56.24% percent for males and 31.33% percent for females in urban areas.

There is only one Civil Hospital and four Taluka Hospitals in the district. Besides, there are nine Rural Health Centres and 49 Basic Health Units in the whole District out of which 35 BHUs are functional. The number of Dispensaries and Maternity Homes is 15 and 3 respectively. There are 7 Veterinary Hospitals, 02 Dispensaries and 49 Veterinary Centres.

## 1.3. Economy

Badin district is divided into two distinct economic zones. One is purely agricultural and the other is mixed having both fishing as well as agriculture based population. The upper part of the district starting from Taluka Matli, Talhar and Tando Bago, except for two union councils, constitutes purely agrarian zone and Taluka Golarchi (Shaheed Fazil Rahoo) and Badin up to Taluka Diplo district Tharparkar constitutes mixed economic zone. There are two coastal talukas namely Badin and Golarchi.

Previously, Badin was a paddy growing; swampy deltaic land saturated with natural salts. At present sugarcane is the major cash crop as compared to paddy. However, after flood 2003 the cultivation patterns are undergoing change due to shortage of water and people are growing sun flower as alternative cropping mechanism. The entire land is irrigated by water coming from Sukkur and Kotri barrages. The irrigation network mainly comprises of Gooni, Phulali, Akram Wah and Nasir canals. The total irrigation supply is 15,208 cusecs for the command area of 0.603 million hectares. The total cultivable area on these canals is 2.8 million acres. The net-cropped area is 2,66,306.78 hectares, mainly because of lack of irrigation water. Crop statistics of Badin district for 2006-07, indicate cotton cultivation was on 9, 565 hectares, sugarcane on 64869 hectares, rice on 59, 740 hectares, wheat on 32,500 hectares, sunflower on 79,525 hectares, tomatoes on 12,950

<sup>3</sup> Participants of multi sector consultation workshop particularly group one were of the opinion that the total population of district Badin is 15,00,000 out of which 51% are female and 49% are male

<sup>4</sup> Source: [www.badin.gov.pk](http://www.badin.gov.pk)

<sup>5</sup> Source: Census Report, 1999

<sup>6</sup> Source: M.H. Panhwar, 2002



hectare, chillies on 6,167 hectors, banana on 2639.78 hectors, and other gardens on 2,259 hectors.

Total area under orchards is around 4,856.25 hectors; there are two main forests namely Buharki and Rarri. District Badin comprises of network of 28 distributaries, 39 drains and sub drains, 24 dhands (Lakes) and dhoras (wetland) and 9 major depressions. In addition to 21 water areas with key potential of fish, prawns and lobster.

The forest is spread on 12,000 hectares at Buharki and Rarri; the forest growth consists of four major kinds of trees, namely acacia Arabica or babul, propopis specigera or kandi, populus euphratica or baahan, and two species of tamarisk, tamarix gallica and dioica, called lai and jhao respectively. Large portions of public forest area are encroached upon and affected by salinity and water logging.

Other trees found in the forest limits includes: zizyphus, jujuba or ber, yield fodder for goats and camels; azadirachta indica or nim yielding timber; albizzia lebak or siras; ficus bengalensis, banyan or wad, and f.religiosa, pipal; tamarindus indica, tamarind; acacia farnesiana, vilayati babul; cordia myza, lasora and C.rothii, liar; parkinsonia aculeta, villayati kikar; casuarina equisetifolia; capperis aphylla, kirir and salvadora persica, khabar. The minor produce from the forest are reeds from sarr and kank grasses (sacchrum spontaneum and arundinaceum). Reeds are sued for blinds, shades and walls for huts and duck boards and for grass for baskets, chairs and ropes.

There are 370 fishponds spread on 16, 500 acres; however, Badin district has two Ramsar sites namely the Indus delta, the Jhabo Lagoon (706 hectors), and the Nerhari Lagoon (2540 hectors). The livestock population was 1,140,122 in 1998, which declined to 857,501 after the 2003 floods; the net livestock population of district Badin is 15,73,510 heads. However, domestic poultry population is 6,11,560 and commercial are 6,15,202. Average crude oil production per day from four oilfields of Badin district was recorded to be 20,043 barrels in 1995; 20,970 barrels in 1996, and 26,335 barrels per day in 1997. The "record" production of 30,000 barrels per day was obtained in 2001.

#### 1.4. Shelter

Total housing units are 101, 669 out of which Pucca (brick or cement made) households were 11,553 or about 11% percent while 81.82% percent are one room houses. The percentage in rural areas is higher at 84.38% as compared to urban areas at 65.85% percent. Housing units with 2-4 rooms are 17.55% percent in the district which is two times higher at 32.53% percent in urban areas as compared to 15.14% percent in rural areas.

<sup>7</sup> Agriculture Department Badin

<sup>8</sup> Source: Statistical Office Badin

<sup>9</sup> Out of total fish production of 80, 659 metric tons in Sindh province in 2002, 14, 152 tons or 17.5% percent was produced in Badin district

<sup>10</sup> due to diseases and sale of animals by poor families as a coping mechanism to survive the aftermath of natural disasters

<sup>11</sup> Source: Census 2006: District Officer Animal Husbandry Badin

<sup>12</sup> Two main oilfields are namely Khaskheli and Leghari are situated nearby Kario Ghanhwar taluka SF Rahoo while the main gas field is situated at Chak # 05 taluka SF Rahoo. Rest of the other fields situated at different parts of district Badin are connected with these main fields

The rural domain extends about 4,000 settlements; only 1547 are large settlements of various sizes above 200 people. The water supply is available to 13% housing units in urban areas. Hand pumps are installed in 26% of housing units in urban areas as compared to 14% of houses in rural areas. Electricity was available to 35% housing units in 1998; presently 77% housing units in urban areas and 28% units in rural areas are benefiting. More than 70% housing units in coastal and rural areas are using kerosene oil for lighting in rural areas. 93.64% Acacia Arabica wood is used as fuel for cooking.

### **1.5. Society**

The majority of population is Muslim. Major castes include Syed, Soomra, Talpur (Mir) Leghari, Memon and Mandhra, Chandio Sheedi, Mallah, Noohani and Bhurgri. Many Baloch races are settled at scattered places of the district. The Hindu population of Badin district fall roughly into three main classes such as Lohanas, Kolhies and Bheels in addition to small portion of Brahmans. The 89.82% language is Sindhi spoken with gliding tone (dialect) from rest of province. There are numerous shrines of the saints where annual festivals are common organized by respective devotees. These annual fairs, besides being reflective of the local culture are also the great source of the entertainment for people of the district.

### **1.6. Administrative System**

District Nazim is the head of district government Badin. However, Badin is the district headquarters headed by the District Co-ordination Officer with revenue set-up of five talukas. Each Taluka is headed by Deputy District Officer (Revenue) in addition to Taluka Municipal Administrations which are responsible directly to respective Taluka Nazims.

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<sup>13</sup> According to 1998 census

## Disaster Risk in District Badin

Disasters experienced by Badin district can be divided into two broad categories such as natural disasters and man-made disasters. Historically, lower Sindh (Badin) has encountered the following

Sl. No.:	Nature of Disaster	Year
1.	Cyclone 'A-1' and 'A-2'	1964 and 1999
2.	Floods	1970, 1975, 1979, 1994, 2003 and 2006
3.	Drought	1894, 1932 and 1965-69
4.	Earthquake	1958, 1960, 1963, and 2001
5.	War	1965 and 1971
6.	Shortage of water	1995 to onwards
7.	LBOD	1997 to onwards

Cyclones, heavy rainfall, floods and droughts are common natural disasters which occur in quick succession. As far as the man-made-disasters are concerned one of the living disaster faced by the coastal populace is the Left Bank Outfall Drain (LBOD) and its components which have proved to be a 'huge technical failure' and has badly affected the coastal population of Badin district.

Left Bank Outfall Drain (LBOD) project was commenced in mid 1986 and was completed in December 1999, with some remaining works to be taken under the National Drainage Programme (NDP) by 2002. The project cost exceeded from Rs 8,000 billion to Rs 30,000 billion.

The project was financed by eight donors: the World Bank (International Development Association. IDA); the Asian Development Bank (ADB); the Department for International Development (DFID-Formerly ODA) of the United Kingdom; the Swiss Development Corporation; the Saudi Fund For Development; the Islamic Development Bank; the Canadian International Development Agency; and the Organization of Petroleum-Exporting Countries (OPEC).

The main Components of LBOD are as under:

- Spinal Drain
- Kadhan Pateji Outfall Drain (KPOD)
- Dhoru Puran Outfall Drain (DPOD)
- Tidal Link
- Cholri Weir
- Kotri Surface Drainage System

The Left Bank Outfall Drain (LBOD) was intended to drain saline ground & surface water, and storm runoff, from 1.27 million acres of land in the three districts of Nawabshah, Sanghar and

<sup>1</sup> Please refer to LBOD: Mega Failure by Professor Bakhshal Lashari, Panel Interview Reports with coastal communities by World Bank Mission in this regard

Mirpur Khas of Sindh Province, to alleviate water logging and salinity.

LBOD collects excess irrigation water, saline seepage, pumped saline groundwater, rainfall runoff and industrial and municipal wastewater. At its terminus near the coastal zone, LBOD discharges into two existing drains, KPOD (Kadhan Pateji Outfall Drain) and DPOD (Dhoro Puran Outfall Drain). These latter two drains empty into two natural, shallow lakes, the Shakoor Dhands and Pateji Dhands respectively.

These Dhands are two of the numerous shallow lakes and depressions that form the larger wetland known as the Runn of Kutch. The drainage effluent transported through surface drains is discharged into a 124-mile Spinal Drain, which ends up in the Kadhan Pateji Outfall Drain (KPOD) and the Dhoro Puran Outfall Drain (DPOD). The KPOD is linked with Shah Samado Creek (a sea creek), through a 25-mile long Tidal Link, while the DPOD (under Flood conditions) discharges its effluent into Shakoor Dhands.

Since operation of the system (LBOD), several issues have emerged which are of varying nature and scale. These can be categorized mainly as technical, environmental and social. However, the severity can be different in each of the categories. This project was a unique example of mismanagement, ill-planning, wrong designs and poor decision-making on the part of government and the donors.

S.No.	Disaster	Year	Severity	Indicators	Areas most affected
1.	Cyclone	1964	High	6 ft. water stagnant	Union Council Ahmed Rajo, Union Council Bhugra Memon, Union Council Seerani, Union Council Khorwah, Union Council Tarai, Union Council Garho
2.	Flood	1976	High	4 ft. water stagnant	Entire District Badin
3.	Cyclone	2007	Medium	4 ft. water stagnant	Union Council Ahmed Rajo, Union Council Bhugra Memon, Union Council Khorwah, Union Council Tarai, Union Council Garho, Union Council Seerani
4.	Flood	1976	High	5 ft. water stagnant	Ahmed Rajo, Bhugra Memon, Khorwah, Tarai, Garho, Seerani
5.	Flood	1988	Medium	3 ft. water stagnant	Ahmed Rajo, Bhugra Memon, Seerani
6.	Flood	1994	High	12 ft. water stagnant	Entire District Badin
7.	Flood	2003	High	14 ft. water stagnant	Taluka Badin, Taluka SF Rahoo
8.	Heavy Rainfall	1973	Medium	6 ft. water stagnant	Taluka Badin, Taluka SF Rahoo

<sup>2</sup> See National Drainage Program (NDP) Project: Joint World Bank, ADB and JBIC Mid-Term Review (MTR) Mission Draft AideMemoir, April 10, 2001

<sup>3</sup> LHDP Disaster Database

9.	Heavy Rainfall	2007	Medium	4 ft. water stagnant	Taluka Badin, Taluka SF Rahoo
10.	Earth quake	2001	Medium	18 ft. lengthy ruptures	Taluka Badin, Taluka SF Rahoo

Badin district is prone to cyclones, coastal floods, heavy rainfalls, sea intrusion and hydrological as well as metrological droughts. The coastal areas are more vulnerable as compared to other rural areas. The 215,080 acres of land is affected while 370,000 individuals are living in danger zone where as 294 Dehs are directly affected by all prevailing disasters. There exist both structural and non-structural dimensions of vulnerability in Badin district.

Disaster	Year	Impact/Losses				
		Death	Houses Destroyed	Land Degraded/ Hectare	Live Stock	Displaced People
Cyclone	1964-5	90	1650	20000	80000	170000
Heavy Rainfall	1973	20	1400	30000	40000	250000
Flood	1978	40	2000	30000	98000	210000
Flood	1988	15	1000	10000	20000	100000
Heavy Rainfall	1994	20	1200	15000	60000	225000
Cyclone	1999	176	56678	263055	17289	452000
Earthquake	2001	05	800	28000	5000	171000
Flood	2003	25	500	5000	3500	45000
Flood	2006	02	500	5000	3500	45000
Cyclones	2007	-	1500	-	-	25000

**Table:12.2. Disasters history of Badin district**

<sup>4</sup> LHDP Disaster Database

## 2.1. Vulnerable Areas

Vulnerability is defined as the degree of losses to a given element at risk resulting from a given level of hazard. The vulnerabilities of communities need to be analyzed carefully and appropriate risk reduction measures be undertaken. Hazards of various types (common in the coastal belt) need to be analyzed and monitored, both in terms of their individual effects and also their possible cumulative effects if more than one impacts at the same time or if a particular hazard impacts over a long period of time.

The vulnerability analysis is, thus, a process that deals with the understanding of the types and levels of exposure of persons, property and the environment (against a hazard) at a particular time. However, the capacity and vulnerability analysis provides knowledge and understanding of communities, government and other agencies about hazards and community capacities to respond.

There are two major dimensions of vulnerability in Badin district - structural and non-structural. The dwellings, hamlets and villages that are situated in close proximity to the Arabian Sea (and LBOD) have been the most frequent subjects of recurrent disasters.

The structure and placement of the houses, no disaster-resistant physical infrastructure and remoteness combine to constitute the physical vulnerability of the communities generally. The most vulnerable areas in Badin district are Taluka Badin: Nindo Shahar, Dando, Kadhan, Rip, Lunwari Sharif, Seerani, Behdami, Bhugra Memon, Mithi III, and Khoski. Taluka Golarchi: Khorwah, Ahmed Rajo, Garho. Taluka Matli: Tando Ghulam Ali, Budho Qambrani, Kapri Mori, Thari, Phalkara, Gulab Leghari, Tando Bago, Dai Jarkas, Pangrio, Rajo Khanani, Ghulam Shah and Taluka Talhar itself.

## 2.2. Hazards

Hazards are generally defined as any phenomenon, substance or situation, which has the potential to cause disruption or damage to infrastructure and services, people, their property and their environment are called to be hazard.

Category	Wind Speed	Damage Category
Deep Depression	52 - 61 km/h	Minor
Cyclonic Storm	62 - 87 km/h	Moderate
Severe Cyclonic Storm	88 - 117 km/h	Moderate
Very Severe Cyclonic Storm	118 - 167 km/h	High
Super Cyclonic Storm	168 - 221 km/h	Extensive
	222 & above km/h	Catastrophic

## 2.3. High Priority Hazards

<sup>5</sup> Source: World Meteorological Organization

### 2.3.1. Cyclones

Badin district lies in zone II regarding cyclones and is more vulnerable to tropical cyclones. The tropical cyclones, which are characterized by torrential rain, gales and storm surges, causing heavy loss of human lives and destruction of property, crops and loss of livestock. The 80% of the cyclones hitting coastal belt of Badin district develop in the Bay of Bengal and adjacent areas. Cyclones cause devastation not only to human settlements but also economic cycle of the area. People, hardly, happen to be able to recover up to years as evident in cyclone A-2.

**Table: 2.3.1. Cyclones and its Severity Measurement<sup>5</sup>**

Three union councils namely Ahmed Rajo, Bhugra Memon and Kadhan are directly while seven union councils such as Mithi III, Pangrio, Khoski, Seerani, Abdullah Shah, Kario and Garho are affected indirectly with intensity.

### 2.3.2. Floods

Coastal floods are the most probable disaster which always comes in coastal belt every year. The 12 union councils are the most floods prone. The district is subject to frequent floods from the speedy water of irrigation channel, storm surges and heavy precipitations. After 'cyclone A-2' on May 19<sup>th</sup>, 1999 the flood experienced by coastal people in 2003 was the more devastating due to the increased quantum of losses pertaining to the previous floods. Three union councils namely Ahmed Rajo, Bhugra Memon, Kadhan, Mithi III, Abdullah Shah are directly affected by floods. However, union councils such as Pangrio, Khoski, Dai Jarkas, Nindo, Kario, Tarai and Garho and Khorwah are affected indirectly.

### 2.3.3. Left Bank Outfall Drain (LBOD)

The southern region of the Sindh province, which is the coastal belt (350 km), is most vulnerable due to existence of the huge drainage network called the Left Bank Outfall Drain (LBOD). Through this three staged drainage network the effluents, toxic and subsoil brackish water of seven districts is emptied out into the Arabian Sea at Shah Samado creek Taluka Jati district Thatta. It is catalytic to worsen the situation during small or large scale emergencies like cyclone, floods, heavy rainfall and upsurge.

Due to subsoil seepage and erosion thousands of hectares of agricultural lands have been degraded; consequently people are compelled to undertake the distressful option of migration to other areas. The major issues related to this emergency are relevant with the communities living along the coastal belt of Sindh particularly in district Badin. The



livelihood resources are depleting rapidly and alternative options are non-existent due to traditional means of production.

This development induced disaster is promoting distress migration while jeopardizing the domestic resource. On the other hand it is again promoting forced urbanization which itself is an early warning of societal disaster. LBOD has affected the entire district generally while the union councils, where it crosses, have been affected very badly. These union councils are Khoski, Mithi III, Nindo, Kadhan, Bhugra Memon and Ahmed Rajo.

#### **2.3.4. Sea Intrusion**

After cyclone A-2 of May 19<sup>th</sup>, 1999 Badin district experienced an acute shortage of water which caused subsoil sea intrusion. The quantity of outflow to sea has been progressively reducing due to shortage of water in down stream Kotri after cyclone A-2. The present salinity level of 40 to 50 ppt (particles per thousand) compared to 15 to 20 ppt half a century ago has already crossed the dead level mark. As a result of reduction in fresh water discharge and reduction in silt down stream Kotri these sites have been pushed to death. Consequently massive sea intrusion has resulted in irreparable environmental damage to the entire coastal belt.

### **2.4. Medium Priority Hazards**

#### **2.4.1. Heavy Rainfall**

District Badin often experience heavy rainfall with thunderstorm when ever low pressure develops in the Bay of Bengal or the Arabian Sea. The monsoon enters in lower Sindh by the 22<sup>nd</sup> of July and lasts up to 1<sup>st</sup> week of September normally. The average Rainfall in the district is 125 mm. Since the increase in global warming the monsoon patterns have been affected. The precipitations received during 2003 and 2006 were premature with increased level up to 270 – 320 mm. Three union councils namely Ahmed Rajo, Bhugra Memon, Kadhan, Mithi III, Abdullah Shah are directly affected by heavy rainfalls. However, union councils such as Pangrio, Khoski, Dai Jarkas, Ghulam Shah, Tando Ghulam Ali, Gulab Leghari, Nindo, Kario, Tarai and Garho and Khorwah are affected indirectly.

#### **2.4.2. Industrial waste**

Six agro-based industries (sugar mills) are contributing pollutants to surface drains as well as nearby depressions. In urban areas of the district, the supply of contaminated water, unsafe disposal of municipal waste and solid waste, unsafe disposal of infectious hospital wastes and congested housing also create environmental degradation. There are no water

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<sup>6</sup> Mirza Sugar Mill Kadhan, Army Sugar Mill Badin, Diwan Sugar Mill Khoski, Pangrio Sugar Mill Pangrio, Diwan Sugar Mill Talhar and Ansari Sugar Mill Matli

<sup>7</sup> Sugar industries waste

<sup>8</sup> Two major Ramsar Sites of Badin namely Jhabo and Nurheri are non-existent, which were the major source of income for fishing community



treatment plants installed at sugar industries, Flying ash emitted from the chimneys contain particle size ranging from 38 um 10 1000 um flying. The wastewater of all the sugar mills is dumped into LBOD through small drains and small irrigation channels at some places.

The wastewater of 09 other Sugar Mills belonging to districts Nawab Shah, Sanghar, Mirpur Khas and Hyderabad is released into LBOD through small drains. The sewerage water of Badin main cities is fallen into irrigation channels which is also the source of water supply for the entire population of district Badin and reaches up to coastal stretches. Four

Month	Mean Temperature (°C)		Precipitation (Millimetres)	Relative Humidity (%)
	Maximum	Minimum		
January	25.78	8.73	0.96	50.38
February	28.59	11.60	3.60	48.81
March	34.02	16.80	2.30	48.36
April	38.40	21.80	2.49	48.97
May	39.85	25.47	0.69	53.10
June	38.02	27.46	10.76	60.70
July	35.1	27.04	70.49	69.61
August	33.61	26.06	89.88	72.55
September	34.36	24.87	34.43	69.78
October	35.80	21.70	3.72	59.15
November	31.87	15.86	1.67	53.88
December	26.68	10.10	1.11	52.46
<b>Annual</b>	<b>33.48</b>	<b>19.76</b>	<b>221.64</b>	<b>57.56</b>

dynamic pressure on built environment of low profile urban areas.

This is another kind of societal disaster for Badin district caused by unplanned development. Another major problem faced by district Badin is linked with global warming; although global warming is slow on set disaster yet has been causing prominent negative impacts on the socio-economic life of society in the district.

The conversion of wetlands/Ramsar sites, agriculture lands into degradation and shortage of freshwater is an indicator for future disintegration of livelihood resources of district Badin. Global warming is not a matter particularly relevant to developed countries rather the impacts are localized. Human-driven climate change is caused by the emissions of carbon dioxide and other greenhouse gases that have accumulated in the atmosphere mainly over the past 100 years. Climate change is global in its causes and consequences yet it presents a unique challenge for economic activities.

**Table: 2.4. Month wise 30 years mean maximum, minimum temperature, Precipitation and humidity<sup>9</sup>**

<sup>9</sup> The temperature has increased by 1.27 Celsius globally

<sup>10</sup> Data specific to Badin, source: Data Processing Centre Pakistan Meteorological Department Karachi

## 2.6. Institutional Capacity

Until now disaster management was an ad hoc activity undertaken only in case of emergencies while exercising the powers vested under Calamity Act 1956. The District administration of Badin reviews its contingency planning annually before the onset of monsoon season. Under Contingency Plan the district administration establishes emergency cell (EC) in district headquarter i.e. in the office of DCO.

The insufficient capacity of district administration and cool attitude towards NGOs working DRM has led to the development of dynamic pressures making marginalized communities more vulnerable against disasters. Consequently, the rural/coastal population of district Badin is still enmeshed in the vicious circle of poverty. Basically, the root causes of this imbroglio are as under:

- a. Less institutional capacity of district government/administration to tackle the issues related to emergencies management.
- b. Lack of structure planning and implementations particularly community infrastructures in the most vulnerable areas.
- c. Less capacity and interest of district administration towards disaster risk management and relevant capacity building of various key actors.
- d. Lack of coordination and acceptance of inter and intra government agencies and NGOs working on Climate Risk Management, Environment, and Disaster Risk Management.
- e. Lack of social security and pro poor development initiatives.
- f. Inadequate early warning systems, communication protocols and preparedness

<sup>11</sup> Local terminology used by fishing community for spring tide and neap tide; fishing is usually doing in accordance with lunar calendar

## Priority Strategies for Disaster Risk Management

The National Disaster Management Framework (NDMF) under National Disaster Management Ordinance, 2006 (NDMO) has set nine priority areas to promote disaster risk management and develop capacities at all levels of government. The District Disaster Risk Management Plan (DDRMP) Badin refers to the National Framework and has adopted a set of six vital components objective to support the National Government and to enhance its own capacities in the district. The District Disaster Management Authority (DDMA) will prepare operational policies, tools and related activities for each of the component objectives as specified under. The priorities set out in this plan are initially for next two years period.

### 3.1. Institutional Arrangements

The National Disaster Management Ordinance 2006 provides for the establishment of Disaster Management Authorities at national/provincial and district level to develop and implement effective disaster risk management strategies. In district Badin series of individual meetings have been had with district authorities and government functionaries to highlight the importance of NDMO 2006 and community benefits of implementation of DDRMP in district Badin.

The response of district administration/government during previous disasters was satisfactory according to their capacity that was void of humanitarian approach practically. Usually district administration prepares contingency planning annually for coping with floods and cyclones. In emergencies the district administration exercises Calamity Act 1952 to provide food support at subsidy rates. In case the disaster happens to be severe all necessary makeshift arrangements are made without keeping in mind the minimum standards specified in SPHERE.

In the light on NDMO 2006 the establishment of the District Disaster Management Authority is an immediate action which the District Government has to take on priority basis in the first year. The constitution of DDMA with clear delineation of roles, functions and tasks before, during and after disasters provides operation space to devise departmental strategies to be consolidated for effective implementation of disaster risk management strategies in the district.

The roles and key functions of local government from talukas, union councils, village councils and citizen community boards will also have to be further clarified. The District Nazim, District Coordination Officer and the Planning and Finance Department will take the lead role in this priority area. For the development of all necessary operational systems and procedures consultations will be held with relevant agencies, organizations, local government and communities to inform them about plan to ensure its ownership. This consultation will also focus on acquiring staff/identifying key personnel in charge of DRM as well as support staff.

#### 3.1.1. Establishment of District Emergency Operation Centre

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<sup>1</sup> Planning Commission Format -1

The District Emergency Operation Centre will be established at public secretariat with the consent of District Nazim and District Coordination Officer. The District Nazim will authorize District Coordination Officer to prepare PC - I to be submitted to the Chief Secretary Sindh/National Disaster Management Authority (NDMA) through Provincial Disaster Management Authority (PDMA) for approval and execution.

The DCO will be the chairman of DEOC while separated experienced staff will be taken on board. Initially this centre will recruit staff for the period of two years which will be extendable based on performance. The district government will allocate separate budget allocation for DEOC; which will be autonomous body having coordination with rest of the line departments particularly revenue, buildings and irrigation. However, the District Office Bait-ul-Mal and Ushar & Zakat will be focal points for local assistance as both of them have ceiling specific for development of marginalized segments.

Five member committee comprising of XEN Irrigation/LBOD, EDO Revenue, EDO Health, EDO Education and EDO Communication and Works Department will be constituted to provide technical input while the DCO/District Nazim will be the lead person.

The DEOC will function permanently as the district is most vulnerable against disasters; existence of such centre is very important in this district. Instead of taking staff on deputation for this centre it is strongly advisable that the staff consisting on five persons may be hired/appointed and required furniture & fixture along with necessary mobility will be provided in addition to access to digital means of communication and dissemination. The major functions of DEOC are as under:

1. The DEOC will function as a part of district administration
2. During emergency, it will be activated and manned to function round the clock.
3. The DEOC will coordinate with all the departments working in the district ensuring that the disaster risk management approach has been incorporated in all the development schemes prepared by respective departments.
4. Development and implementation of Community education and Preparedness Programmes to overcome any disaster given wide publicity through posters, banners, handbills in the district mostly in vulnerable areas.
5. The DEOC will prepare flood control programme/update contingency plan every year before onset of monsoon through consultation with the members of the District Disaster Management Authority.
6. The warnings will be circulated to all the concerned departments, TMAs, Union Council Administrations officially and the most vulnerable villages through involvement of NGOs working in that area.
7. Design training modules; arrange simulations and mock exercises for representatives from line departments, taluka/union council Nazims, NGOs, and CCBs.

<sup>2</sup> Individual Financial Assistance (IFA) General, Medical & Education with PBM and Rozgar Scheme with Ushar & Zakat Department

8. Maintain and manage emergency stockpiling at district level and update virtual stockpiling list for quick supplies in case of emergency.
9. Review the operational strategies of key departments and provide technical support and input where it is necessary.
10. Monitor the situation frequently and keep the record of changes taking place in addition to preparing situational specific coping strategies.

### Outcomes with Timeframe and Responsibility

1. Activity: The District Disaster Management Authority constituted and the members appointed
2. Activity: The DDMA tasks, functions, roles and responsibilities clarified and disseminated
3. Activity: Roles and responsibilities of Taluka and Union Councils in Disaster Risk Management developed
4. Activity: Setting up fulltime functional District Emergency Operation Centre (DEOC) to monitor and supervise the implementation of different coordination activities among departments and develop partnership strategy amongst external organizations such as INGOs, NGOs for disaster management programmes/projects in the district.
5. Activity: The District Disaster Risk Management Plan updated and approved by the district authorities.
  - Support Agency: Provincial Government, CDD, EDOs, Finance & Planning Department, Revenue Department, Taluka and Union Council Nazims, and NGOs
  - Lead Agency: PDMA, DCO, District Nazim, CDD, Civil Defence, NGOs, Technical Agencies, and Media
  - Timeframe: Two months of first year

### 3.2. Risk Assessment

Hazard and Vulnerability Assessment is a very important phase of disaster management planning in addition to risk assessment through participatory approach. This kind of assessment answers the fundamental question that fuels the natural hazard mitigation planning process. The data collection is the very important part of assessment that requires good quality of team having strong sense of situational analysis and observation. There is no systematic and proper database available at district level yet plenty of information is available with different NGOs working on DRM.

The Revenue Department, Community Development Department and District Emergency Operation Centre will be the lead agencies to perform this task and developing database. They are responsible to develop appropriate assessment methodology, identify the sources required and ensure the quality and standard of baseline data, meanwhile, the NGOs and other relevant agencies will be involved in the whole process.

The District Disaster Management Authority through Revenue Department, Community Development Department and Emergency Coordination Centre, local NGOs and Technical Experts will conduct the hazard vulnerability and capacity assessment of entire district through utilization of PPA and PRA Tools under participatory approach. The Revenue Department and Emergency Coordination Centre are directly responsible for preparation of hazard specific digital map with the support of SUPARCO highlighting the dangerous zones categorically. In this entire process the TMAs and Union Council Nazims and Councillors will be involved. The vulnerability and capacity assessment will identify key infrastructures and environmental resources in addition to various social groups in each local area which is prone to devastation caused by hazards. Pakistan Metrological Department, WAPDA, Telecommunication and NGOs working on DRM will provide all necessary support during conduction.

### Outcomes with Timeframe and Responsibility

1. Activity: Development of HVCA manual and formats for each department for implementation at various programme levels.
2. Activity: Conduction of HVCA of entire vulnerable areas and communities of district Badin
3. Activity: Development and maintenance of data base of Hazards, vulnerabilities and Capacities of district Badin
  - Support Agency: CDD, HRDO, Finance & Planning Department, Civil Defence, Revenue Department, Taluka and Union Council Nazims, NGOs, and DEOC
  - Lead Agency: DCO, EDOs, TMAs, NGOs, Technical Agencies, Media, IT Department, Agriculture Department, Irrigation/Drain, Health Department and Education Department
  - Timeframe: Four months of first year

### 3.3. Training, Education and Awareness

One of the major gaps found in the modus operandi of district departments and concerned authorities depicts lack of knowledge of disaster management practices and approaches. The government departments are seldom provided training opportunities except deliberations on contingency plan. The district departments usually receive very specific departmental trainings. Enhancing the knowledge and skills of decision makers and at risk communities is also essential in order to promote a culture of resilience. The main purpose of training, education and awareness raising activities will be to develop a cadre of experts who will be able to analyse risks and develop and implement disaster risk management programmes in district. The DRM training, education and awareness raising is essentially required in multiple sectors such as civil servants, technical staff, NGOs, media, elected representatives and communities.

It is vital for them to develop an understanding about disaster preparedness, response and overall disaster risk management. In addition to these specialized trainings will be organized such as search & rescue, site planning & camp management, evacuation mechanism, first aid & fire fighting, beneficiaries' identification & relief distribution, disaster preparedness and risk management. The Human Resources Development Department (HRDD) under the Office of the District Coordination Officer, District Emergency Operation Centre (DEOC) and Community Development Department (CDD) will be the lead agencies.

These agencies will assess the levels of awareness, training and skills needed among government personal and design, implement and evaluate awareness campaigns, skills training and simulations. Training Needs Assessment (TNA) will be conducted to ensure appropriate training is imparted to all. These HRDD and DEOC will liaise and work with other technical agencies, NGOs and UN to support training of personal.

### Outcomes with Timeframe and Responsibility

1. Activity: Development of curriculum on disaster (risk) management and arrangement of trainings accordingly for district administration/government
2. Activity: Development of curriculum for media orientation on disaster (risk) management, preparedness, minimum standards and different humanitarian approaches and strategies
3. Activity: Enhancement of technical/logistical skills and knowledge of TMAs in hazard prone parts of district Badin enabling to respond disasters timely and humanely.
  - Support Agency: CDD, HRDO, Finance & Planning Department, Civil Defence, Revenue Department, Taluka and Union Council Nazims, NGOs, and DEOC
  - Lead Agency: DCO, EDOs, TMAs, NGOs, Technical Agencies, Media, IT Department and Education Department
  - Timeframe: Six months of first year

### 3.4. Community Based Disaster Risk Management

The disasters induce poverty, making better-off people poorer and the poor destitute despite programmes aimed at fighting poverty. Hazards create direct damages, indirect effects, and secondary hazards to the community. Community Based Disaster Management is participatory measures taken by community being a primary actor during different phases of emergency. Disaster risk management entails measures to curb disaster losses by addressing hazards and people's vulnerability.

Community Based Disaster Risk Management Programme is good and practical model at community level which has been practised by some NGOs in Badin district. The DDMA will work together with local communities to help increase understanding and resilience before,



during and after disasters. It is quite important to develop the ability of district authorities, NGOs, union councils, village councils and communities to act efficiently when an extreme natural event takes place so that it may not develop into a full-scale disaster. The ability of a community to protect itself against natural events/hazards is decisive. The taluka, union councils and village authorities will design localised disaster risk management plans for their respective areas. Each plan will contain analysis of area, potential hazards, vulnerabilities, coping mechanism, available and required resources, strategies for disaster risk management and roles & responsibilities of each stakeholder.

### Outcomes with Time frame and Responsibility

1. Activity: Established and strengthened local institutions for DRR at taluka, union councils and village council level
2. Activity: Development of DRMP at taluka, union council, village council and household level
3. Activity: Enhanced the capacity of various actors at taluka, union council and village council level making them able to deal with DRR&P
4. Activity: Raised the awareness of vulnerable communities, local stakeholders regarding hazards, risks reduction, vulnerabilities and preparedness
5. Activity: Implemented flood resilient infrastructure and small structural mitigation schemes in the most vulnerable areas
6. Activity: Strengthened livelihood of vulnerable groups
  - Support Agency: CDD, HRDO, Finance & Planning Department, Civil Defence, Revenue Department, Taluka and Union Council Nazims, NGOs, and DEOC
  - Lead Agency: DCO, EDOs, TMAs, NGOs, Technical Agencies, Media, IT Department and Education Department
  - Timeframe: Six months of 2nd part of second year

### 3.5. Multi Hazards Early Warning System

Dissemination of messages relating to relevant hazards, which may include advice on protective measures. Disaster prevention and mitigation are essential to sustainable development and early warning systems are the key to effective risk reduction. The district based early warning system with a network of sub stations at least at taluka level is very important for Disaster Risk Management. To be effective, early warning systems must be people-centred. A complete and effective early warning system comprises four inter-related elements: risk knowledge, monitoring and warning service, dissemination, communication, and response capability. A weakness or failure in any one of the part could result in failure of the whole system.

The main objective of the people-centred early warning systems will be to empower individuals and communities threatened by hazards to act in sufficient time and in an appropriate manner so as to reduce the possibility of personal injury, loss of life, damage to property and the environment, and loss of livelihoods. The communities, particularly the most vulnerable ones,



are central to people-centred early warning systems. Their input to system design and their ability to respond ultimately determines the extent of risk associated with natural hazards. They should be aware of the hazards and the related effects to which they are exposed and be able to take specific actions to minimize the threat of loss or damage.

Early warning will help to reduce economic losses by allowing people to better protect their assets and livelihoods. For example, they can safeguard homes, sell livestock or select appropriate crops for a drought season, thus limiting not only the immediate impact of a disaster but also the knock-on effects on assets that can affect the economic well being and increase poverty.

Early warning information allows people to make decisions that contribute to their own economic self sufficiency and their countries' sustainable development. If well integrated into a systematic framework of disaster risk management, early warning systems can provide many development benefits. Early warning systems also promote the development and the application of scientific knowledge, including improved science and technology information dissemination. They contribute to the creation of data archives and information bases that are essential to longer term economic development planning and decision making.

Early warning systems enhance communities' capacities through participation processes, public-private partnerships, and recognition of indigenous knowledge and values. Developing and implementing an effective early warning system requires the contribution and coordination of a wide range of individuals and institutions such as district line agencies and NGOs. Each has a particular function for which it should be responsible and accountable.

This is the primary responsibility of the district government to be actively involved in the design and maintenance of early warning systems, and understand advisory information received to be able to advice, instruct or engage the local population in a manner that increases their safety and reduces the possible loss of resources on which the community depends. NGO(s) will play a critical role in raising awareness among individuals and organizations involved in early warning and in the implementation of early warning systems, particularly at the community level. In addition, they play an important advocacy role to help ensure that early warning stays on the agenda of government policy makers. The public sector technical and institutes will provide all necessary input to the functionality of Early Warning System. Meanwhile, the private sector has a diverse role to play in the early warning, including developing early warning capabilities within their own organizations. Media plays an important role in improving the disaster consciousness for the general population and disseminating early warnings.

In addition, the private sector has a large untapped potential to help provide skilled services in the form of technical manpower, know-how or donations (in-kind and cash) of goods or services, especially for the communication, dissemination and response elements of early warning.

### **Outcomes with Timeframe and Responsibility**

1. Activity: Developed Early Warning System (EWS) at District Badin level in



## Structure for Disaster Risk Management and Key Stakeholders

The structure of disaster risk management at district level is based on Sindh Local Government set up and Contingency Plan to combat cyclones & flood. This is an inclusive plan having involvement of multi stakeholder already functional in the district.

### 4.1. District Disaster Management Authority

As per the National Disaster Management Ordinance of 2006, the District Disaster Management will be established by the provincial government in hazard prone areas on a priority basis. The District Authority is comprised of District Nazim, District Coordination Officer (DCO), Police Officer and EDO Health. The local government can nominate other officers as members of the DDMA. They may include EDOs for education and agriculture, Red Crescent, NGOs, Media, Private Sector, Fire Services, or any other local stakeholders.

#### 4.1.1. Key functions of DDMA as specified in NDMO 2006

Formulate district/municipal disaster risk management and preparedness plans, based upon hazard and vulnerability analysis of the district/municipality;  
 Coordinate and monitor implementation of district/municipal plan in accordance within the National Framework and Provincial plan;  
 Continuously monitor hazards, risks, and disaster threats and the conditions of vulnerable population within the district or municipality;  
 Prepare guidelines for risk reduction, preparedness and response;  
 Identify training needs and conduct education, training and public awareness programs;  
 Conduct training in disaster risk management and relief administration for local government officials, public and civil society representatives, and at-risk communities.  
 Set up, maintain, review and upgrade district level early warning and communication systems for effective dissemination of warning messages;  
 Coordinate with local authorities to ensure that post disaster activities are carried out promptly and effectively;  
 Review development plans of government departments at the district/municipal level and provide guidance on mainstreaming disaster risk management measures in these plans.  
 Encourage the involvement of community groups in disaster risk management and response by providing them necessary financial and technical assistance for implementing community level initiatives;  
 Identify buildings and places in the district/municipality that could be used as evacuation sites or relief centres in case of a disaster, and make arrangements for water supply and sanitation in such buildings or places;

Establish stockpiles of relief and rescue materials or ensure preparedness to make such materials available at a short notice;

Identify alternative means for emergency communications, should the regular communications be disrupted;

In the event of a disaster/ emergency, the DDMA / MDMA in the affected District/Municipality will take operational control of the situation to ensure that support is delivered promptly to the affected communities.

Keep linkages with the Provincial Disaster Management Authority and the Relief Department.

Mobilize and coordinate all interventions from other agencies at the time of emergencies.

Mobilize needed financial and material resources for disaster risk management.

Perform such other functions as the Provincial government of Provincial Authority may assign to it or as it seems necessary for disaster management in the district;

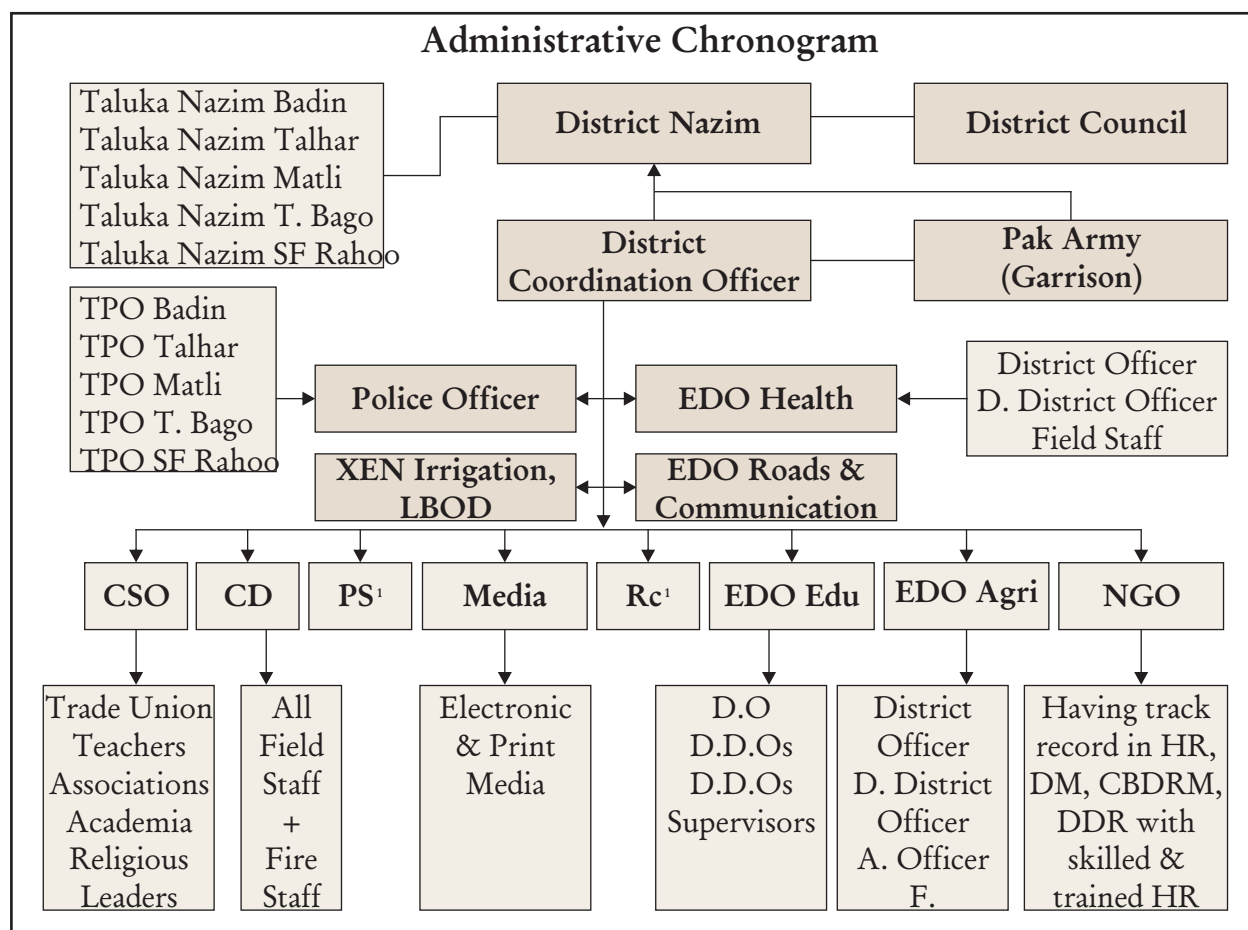
Invest in specific capabilities according to the requirement to manage all types of threat peculiar to local area

#### **4.1.2. Taluka Structures and Responsibilities**

Institutions at this level are the frontline of disaster risk management and response, where disaster activities are actually implemented. These include Taluka Municipal Administration and town authorities. Taluka and town Nazims will lead in all risk reduction and response operations with the help of Taluka or Town Municipal Officer in consultation with the DDMA. Key players include; extension workers, police, local fire services, community organizations (COs), traditional leaders and NGO's.

Institutions will establish appropriate structures both for disaster risk management, preparedness and civil protection systems. Particularly the authorities at this level will work closely with the communities and community groups to enhance resilience by developing local capacities, implementing programmes, and providing support. Taluka Council is to approve land use, zoning and master plan of the taluka development and maintenance programmes or projects proposed by the Taluka Municipal Administration.

The Town Council has also gotten similar powers and responsibilities to be executed under the SLGO. The institutions at this level are the frontline of disaster risk management and response. For many departments this is the lowest level of administration where they interface directly with communities; agriculture, education, health, police, revenue and others. Extension workers of above departments could play a significant role in promoting risk reduction. District Nazim and District Coordination Officer. The District Nazim will authorize District Coordination Officer to prepare PC - I to be submitted to the Chief Secretary Sindh/National Disaster



For example agriculture extension workers could promote awareness of drought, flood or cyclone resistant crops. Health workers will raise people's awareness about potential diseases that may occur after flood or drought and how to prepare for them. Education officials could work on school disaster preparedness.

Similarly Taluka Authorities have an important role in organizing emergency response and relief; e.g. damage and loss assessment, recovery needs assessment, Taluka and Town

Nazims will lead in risk reduction and response operations with the help of Taluka or Town Municipal Officer in consultation with DDMA. Other key players include: extension workers, police, fire services, community organizations (COs), traditional leaders, and NGOs.

#### 4.1.3. Union Council

A Union shall be an area comprising one or more dehs or, in the case of an area where revision of settlement under the law has not been taken, one or more census villages or, in the case of an area with urban characteristics, a whole number of population census blocks as delimited for the purpose of last preceding census or a combination of whole number of census blocks and a whole number of dehs, notified as such by the Government: provided

Departments/Agencies	Responsibilities/Tasks
Department of Agriculture, Forestry and Fisheries and Department of Revenue	Develop and maintain appropriate policy and Strategies regarding land use. Develop and maintain policy and advice on animal and crop related issues such as food security, agriculture technology, agro-climatology, irrigation, food preservation, and forestry that reduce community vulnerability
Department of Planning and Finance, District Council and Taluka Municipal Administrations	Develop and maintain appropriate policy and strategy regarding environmental protection and disaster risk reduction and development
Department of Revenue, Community Development Department and Taluka Municipal Administrations	Ensure all nationally and internationally funded development projects address risk reduction.
District Government and Administration	Develop and maintain disaster risk management legislation
Department of Public Health and Taluka Municipal Administrations	Develop and maintain a public health management plans and strategies
Department of Community Development, Civil Defence	Develop and maintain preparedness including planning and the necessary training for emergency responders. Develop and deliver disaster related public education and awareness programs
All the departments/agencies	Develop and maintain response plans for situations that will impact on the ability of the department/agency to continue operations
All the departments/agencies	Develop and maintain disaster operational response support plans, including resources lists, to support the District Disaster Risk Management Plan (DDRMP)
Pakistan Metrological Department district Badin, Irrigation Department, LBOD Division and DEOC	Develop and maintain appropriate early warning, monitoring and coordination systems
District Disaster Management Authority	Develop and maintain disaster related multi sector training programs
All the departments/agencies	Participate in disaster relief, rehabilitation and recovery programs

## 4.2.2. Specific Responsibilities

### 4.2.2.1. Revenue Department

#### *Pre-disaster responsibilities*

To ensure establishment of control rooms at each Mukhtiarkar Office this will function round the clock under the supervision of DEOC and Revenue Department.

To prepare contingency plan for evacuation of people in consultation with DEOC, NGOs and Union Council Administration.

To take immediate steps for the arrangements of Relief Fund/Humanitarian Support from DDMA/PDMA in case of emergency.

#### *During disaster responsibilities*

To establish relief camps in coordination with Executive District Officer Education, DEOC, and NGOs where necessary in emergency.

To make arrangements for the availability of sufficient number of family tents for emergency.

To form quick response teams comprising of representatives of all concerned departments, DEOC and NGOs.

To arrange possible transportation means and manpower (police force) to be engaged in emergency response.

To make prior arrangements of food supply as per minimum standards in coordination with food department, DEOC, CDD and NGOs.

To make arrangements in coordination with District Police Officer for sufficient transport for the evacuation and relocation of affected communities.

*Post disaster responsibilities*

To mobilize villagers in emergency response with the support of DEOC and NGOs during monsoon.

To take immediate steps for the arrangements of Relief Fund/Humanitarian Support from DDMA/PDMA in case of emergency.

**4.2.2.2. Irrigation/Drain**

*Pre-disaster responsibilities*

To liaise with DEOC and all the concerned

To prepare departmental contingency plan and circulate its copies to all the concerned stakeholders before monsoon onset.

To identify the most vulnerable points of LBOD and Irrigation Canals.

To remain in touch with DEOC, NGOs and PMD district Office and share the information/updates about emergency with all the stakeholders.

To make all necessary infrastructural arrangements in case breaches take place suddenly.

To establish special flood warning centers at union council level with the support of DEOC and NGOs.

To make arrangements of sand-bags, machinery, human resource and other material to be used at the time of need.

To maintain the embankments of river and canals of the District during the rainy season.

To take necessary measures to reinforce the bunds with stone pitching, wooden slabs and sand sacks.

To operate the drainage system efficiently with special attention to the drainage regulators, which are discharging drain water in to the sea, round the clock, vigilance be made over the regulators.

*During disaster responsibilities*

To ensure functionalization of Flood Control Cell (FCC) in proper order.

To make special arrangements for watch and patrolling of vulnerable points of LBOD and Irrigation Canals.

To ensure that LBOD and other drains are working properly and the drains are disposing off rain/flood water is continuously and orderly.

*Post disaster responsibilities*



To liaise with DEOC and all the concerned.  
To remain in touch with DEOC, NGOs and PMD district Office and share the information/updates about emergency with all the stakeholders.  
To assist and coordinate repair work and maintain damaged infrastructures with the support of SIDA, Revenue and DEOC.  
To take necessary measures to reinforce the bunds with stone pitching, wooden slabs and sand sacks.

#### **4.2.2.3. Education Department**

##### *Pre-disaster responsibilities*

To deploy sufficient staff on duty at all relief camps.  
To train and organize relief teams to support the DDMA relief distraction teams.

##### *During disaster responsibilities*

To assist the DDO Revenue, TMA for properly establishing the relief camps in schools and provision of relief in case of emergency.  
To ensure that all basic facilities are made at each camp with the support of DEOC, NGOs, CDD, TMA and XEN Public Health and monitor the duties of staff.

##### *Post disaster responsibilities*

To take all necessary measures for functionalization of schools.  
To provide human resource for assistance in survey of damages and needs.

#### **4.2.2.4. HESCO/WAPDA**

##### *Pre-disaster responsibilities*

To form special committee headed by Line Superintendent for inspection of electricity supply lines in the most prone areas.

##### *During disaster responsibilities*

To ensure that no case of electrocution may occur.  
To make sure that in case of breaking of live electric wires immediate steps are taken.  
To ensure supply of electricity at various points as per demand of agencies working at the time of emergency.

##### *Post disaster responsibilities*

To make proper and immediate arrangements for maintenance of electricity supply.

#### 4.2.2.5. Health Department

##### *Pre-disaster responsibilities*

To ensure availability of Doctors, Paramedical staff and required necessary medicines in all the hospitals, Basic Health Units and Rural Health Centers in emergency.

To make sure availability of all vaccines especially dog bite, anti snake vaccines in emergency.

To ensure establishment of high alertness system at union councils which are the most vulnerable

##### *During disaster responsibilities*

To depute fully equipped medical teams at all the relief camps in case of emergency.

To make necessary arrangements for the prevention of epidemics/ASA.

To make necessary arrangements for mobile medical teams with sufficient medicines during emergency.

##### *Post disaster responsibilities*

Provide and disseminate on massive scale the information regarding precautions of epidemics.

#### 4.2.2.6. Agriculture Department

##### *Pre-disaster responsibilities*

To depute District Officer Animal Husbandry (Livestock) and concerned staff to save the livestock from flood induced diseases and losses during heavy rain.

To make vaccination/de-worming arrangement against outbreak of contagious diseases to the livestock of affected areas.

##### *During disaster responsibilities*

Ascertaining quantum of damage done by disaster to crops, livestock and the fertility of land.

Provide necessary treatment to the ailing animals.

##### *Post disaster responsibilities*

To make necessary and relevant arrangements for rehabilitation from

mechanical wing in emergency.

To establish Veterinary Relief Camps for Live Stock at accessible focal points.

Providing necessary technical assistance to avoid fungus and other disaster related crop diseases.

To arrange capacity building training opportunities of Agriculture department regarding DRM.

#### **4.2.2.7. Food Department**

##### *Pre-disaster responsibilities*

To make arrangements of food supply from different parts of Sindh province in emergency.

To maintain proper record of virtual food stocking and keep it updated.

To make arrangements for shifting food stocks from vulnerable zones to safer areas.

##### *During disaster responsibilities*

To arrange sufficient Packets of cooked food for the affected people living in the relief camps at the time emergency.

##### *Post disaster responsibilities*

To establish food supply centres at feasible locations as required.

#### **4.2.2.8. Communication and Works**

##### *Pre-disaster responsibilities*

To keep ready public/private crane lifters.

##### *During disaster responsibilities*

To make sure the availability of staff and arrange machinery for removal of debris and keep all roads motor-able for evacuation and relief.

To ensure water supply, electricity and drainage at all relief camps in coordination with Executive District Officer Revenue, Education, XEN Public Health, DEOC and NGOs in emergency.

To ensure maintenance of roads and improvise bridges after cyclones/flood for making accessibility of humanitarian response more possible to affected areas.

##### *Post disaster responsibilities*

To coordinate with DEOC for conduction of surveys, loss & damage

assessment, extent of damage of community infrastructures.

#### **4.2.2.9. Community Development Department**

##### *Pre-disaster responsibilities*

To ensure availability of maximum number of trained volunteers to assist in humanitarian response.

##### *During disaster responsibilities*

To mobilize all the NGOs, CCBs and Business Community in humanitarian response.

To help DEOC maintaining record of the losses and developing coordination mechanism with INGOs, NGOs and UN Agencies for timely response.

##### *Post disaster responsibilities*

To mobilize all the NGOs, CCBs and Business Community in humanitarian response.

To prepare rehabilitation programmes together with DEOC

#### **4.2.2.10. Police Department**

##### *Pre-disaster responsibilities*

To provide help to the irrigation, LBOD and revenue staff to avoid closure of modules by landlords/agriculturists in case of flood in canals/water courses.

##### *During disaster responsibilities*

To assist in evacuation and relocation of people from flooded areas by providing logistical support.

To maintain law and order situation in the affected areas particularly at relief camps.

To provide necessary transportation security to relief material and its distribution if coming from far flung areas.

##### *Post disaster responsibilities*

Provide Security to the Officer/Officials of Irrigation Department working at protective Bunds and Rescue Workers and assist the Rapid Relief force as and when required.

Meanwhile, it will be the prime responsibility of the District Police Officer (DPO) to make all out efforts through mobilization of force to provide

relief to the general public in consultation with DEOC and NGO(s). In case of any emergent situation the Town/Taluka Police Officers (TPO) of the concerned locality will deploy their Police force at the vulnerable points of drains/canals to avoid any breach therein during rainy season or Cyclonic situation.

They will also keep close liaison with the officials of Departments concerned for the deployment of appropriate personnel. TPOs and the Senior Police Officers will also keep close liaison with the Union Council Nazims, Councillors and notables of the locality to keep awareness among general public about the situation which may occur due to eventual heavy rains/flood/cyclone. In case any information to this effect is received from the Metrological Department/Officials, efforts will immediately be made to evacuate the people, in consultation with revenue department, DEOC and NGOs; residing along coastal areas to avoid any damage.

All TPOs/Senior Police Officers are further required to ensure that hosepipes are arranged and installed in all police vehicles so that same can move in flood/heavy rain water in case of any emergent situation. The following equipments should necessary be kept in all police vehicles/mobiles:

- i. Vehicles toe chain
- ii. Emergency Lights
- iii. Hoes and spades and axes

However, all the TPOs will be responsible to prepare list of 4X4 vehicles running within the jurisdiction of police stations and owners of these vehicles will be convinced by the responsible authority in dignified manner to provide the same to the District Administration voluntarily for evacuation and relocation of the affected people. District Police Control Room is already functioning in Police Headquarters Badin with telephone No. 0297 861244. Any information relating to Cyclone/Torrential Rains will be communication to DEOC through District Police Control Room. The staff details at Control Room will keep liaison with the officials of Metrological Department and get advance information from them. In case any information relating to the breach in Drains/Canals, is received the same will be communicated well in time to DEOC, the DCO/DPO and Army Cantonment Badin.

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<sup>1</sup> HQ 18 Division Hyderabad has 71 boats

#### 4.2.2.11. Army

##### *Pre-disaster responsibilities*

To provide rescue and search trainings during simulations/mock exercises.

##### *During disaster responsibilities*

Rescuing the people from affected areas through boats, heavy vehicles and helicopters.

To assist in relief work particularly Food and Drinking Water supply to the affected people.

To provide medical assistance where the EDO (Health) and his organization fails to have access.

Maintain communication network and accessibility.

To assist Irrigation department/LBOD division to protect and supervise the vulnerable points as mentioned in the Contingency Plan.

##### *Post disaster responsibilities*

To provide technical assistance for construction of flood resistant community infrastructures.

However, in the past disasters the Pak Army have played remarkable role during the Cyclones 1999, 2001 and Flood 2003 in District Badin. The Civil Administration has always been assisted by the Armed Forces during the Natural Calamities or Social Unrest in District Badin. Under the circumstances the District Coordination Officer may declare emergency and request the Pak Army (Garrison) for the assistance of the Civil Administration to perform the tasks.

### 4.3. Community Based Organizations

In order to promote community level disaster risk management and preparedness activities in the hazard prone areas, the capacity of existing community organizations will be developed and enhanced by the district, and taluka authorities. In case of absence of any community level organizations, the establishment of new groups will be encouraged by the local authorities to work on disaster risk management and preparedness.

The community organizations will be trained to develop local early warning systems, and capacities in the areas of evacuation, first aid, search and rescue, fire fighting. Linkages will be developed between CBOs and relevant local agencies e.g. agriculture, bank, health and veterinary services to promote disaster preparedness in the aspects of community life. The skills and knowledge of CBOs leadership will also be developed in the areas of organizational management and development; e.g. financial management, people management, resource mobilization,

interpersonal communication skills and presentation and negotiation skills.

#### **4.4. Non-Government Organizations**

The Non-Government Organizations (NGOs) and voluntary agencies (VA) play an important role in disaster management and provide a strong band of committed volunteers with experience in managing the disasters. Their strength lies in the choice of their manpower, the informality in operations and flexibility in procedures. These organizations enjoy a fair degree of autonomy and hence can respond to changing needs immediately.

However, in order to maintain uniformity in operations and effective coordination, it is desirable that they follow the standards of services, information exchange and reporting so as to enable the DDMA to have a total picture of resources availability, disbursements and requirements. NGOs therefore will be assigned specific tasks by the DDMA to undertake relief work within the overall institutional framework. As and where possible, NGOs may also be able to improve the quality of service delivery. Specific activities in which NGOs/PS can be involved during disaster management operations are:

1. Search and Rescue Operations
2. Information dissemination
3. First Aid
4. Disposal of dead
5. Damage Assessment
6. Management of Information Centres at temporary shelters
7. Mobilization and distribution of relief supplies including finances
8. Manpower for community mobilization, crowd control, rumour control and traffic management
9. Specialized services (psycho-social therapy)
10. Management of transit camps

#### **4.5. Edhi Foundation**

Edhi Foundation will be requested for rescue and search operation in addition to funeral arrangements of unclaimed dead bodies and provision of assistance to affected people in emergency. During flood 2003 Mr. Faisal Edhi played key role in search and rescue operation and worked very close to district administration, army and NGOs in district Badin.

#### **4.6. Pakistan Red Crescent Society**

Pakistan Red Crescent Society Badin is dysfunctional; however during cyclone 1999 it provided medical support to people living in the camps.

#### **4.7. Academic and Research Institutions**

Badin district has no such type of institutes which are engaged in research; yet the district has unforgettable credibility for having good intelligentsia and intellectuals. District Badin has one

poly technical college, one degree college and a year ago university of Sindh Jamshoro has established a Laar Campus in Badin. All these institutions together with intelligentsia and intellectuals can play substantial role in disaster risk management. Meanwhile, the responsibilities will be different. The academicians together with education department and NGOs are responsible to develop multi-hazards specific curricula to be approved by TWG, UNDP, & NGOs and to be taught in schools and colleges. Where as, the intellectuals and literary fora are responsible to develop DRR oriented folk literature with scientific touch and compose folk songs focusing on DRR, preparedness, capacity building and resource building and mobilization.

#### **4.8. Religious organizations**

Badin district has lot of where pupils (khutabies) from different parts of district Badin are taking religious education; this human resource can be converted as mercy corps and can be mobilized in case of emergency. The madrassas have good clout on people particularly rural populace. These madrassas and ulemas can play very important role in DRM. Meanwhile, it is the responsibility of DEOC to make inventory of relief items provided by religious groups to particular geographic areas.

#### **4.9. Private sector (business groups, associations)**

The private sector especially business groups can play important role in local fund raising in cash and kind through DEOC.

#### **4.10. Media**

The idea of serving the public lies deep in journalism's percept and practice. Journalism in all its forms makes the lives of people fuller, safer, richer, healthier and in many ways more rewarding. Disaster management is about life and death. A significant responsibility rests on the shoulders of the disaster manager. A similar responsibility rests with the media, which is one of the crucial communication links between the disaster manager and the general public, particularly during a disaster. It is vitally important that the disaster manager and the reporter or editor work as partners, that they talk the same language, understand the same jargon, and appreciate and respect each other's role. Disasters are a significant source of news; disasters capture the attention not only of urban populace, but of populations through province/country. Media will play the following key responsibilities:

- To provide an easily accessible source of background information on disasters for media practitioners

- To ensure consistent interpretation and reporting of basic disaster information by media practitioners

- To alleviate the pressure placed on disaster management officials during emergencies

- To demonstrate recognition of the important role of the media in disaster management and the commitment to increase cooperation and collaboration between media and disaster management professionals.



However, District Information Officer will be responsible to regulate news regarding disasters and make media more careful for the following things during in emergency.

**Risk Amplification:** Risk amplification occurs when media sensationalism causes hazard perception and public concern to be magnified far beyond levels proportional to the risks estimated in risk assessment sciences. Such agenda-setting can create political activism or disruption more costly than the original hazard.

**Risk Attenuation:** Sometimes the media acts, instead, to attenuate perception of a significant hazard and thereby blunt concern and political pressure to do something about it.

**Social and Political Bias:** Not only can media amplify or attenuate hazards perception and political action, it can bias the representation of an actual disaster, with negative impacts on the equity and efficiency of response to a disaster and public understanding of the hazard realized in it. Faulty response can thereby accelerate polarization tendencies in a society in the wake of a disaster.

#### 4.11. Banks

The banks have as such no provision to support affected communities; already Zarai Tarqiyati Bank has blacklisted district Badin due to frequent occurrence of disasters (Ref. vision Badin by IUCN). Some of the banks provide Khasra loan; the small farmers have no access to it. However, First Micro Finance Bank by Agha Khan Foundation has been providing loans to people living along the coastal belt.

#### 4.12. Insurance

The district Government will support group insurance of fishing people with the support of NGOs. The head of the district is the authority to provide guaranty for insurance. The district government will not provide 100% per cent insurance funds rather parallel portion of this fund will be contributed by these fisher folk. Under the instructions of Sindh Government the fisher folk are issued license for fishing; it is renewable annually. The annual fee of this license is Rs. 250 per person. Fisheries department may be instructed through district government that the fee of the license should be increased by 50-100 rupees.

This additional amount should be paid against group insurance. The group insurance facility is available with Group and Pension Department State Life Insurance Corporation of Pakistan Karachi. (PTCL: 021 9202800-9, UAN: 111-111-888). The district government Badin has to play another key role for having coordination with federal government particularly ministry of agriculture and food regarding crop insurance. The federal government of Pakistan has recently (in 2005) adopted the practice of crop insurance with ministry of agriculture and food. This is initially for cotton crop; no doubt it is good practice and should be for all crops.

#### 4.13. Mid Term Action Plan

The District Disaster Risk Management Plan (DDRMP) is a basic document, which identifies

priority areas and proposes a broad spectrum of structural and non-structural activities to be implemented over a longer period of time for disaster risk management and sustainable development.

However, it is equally important to have a medium-term plan in place enabling the district government to carry forward the long-term agenda of making the district resilient against disasters in an effective manner by undertaking some specific activities for the first two years after the activation of DDRMP district Badin.

The estimated budget has been given against each activity, however, the district government, in consultation with concerned departments will go into the budgetary details for determining realistic costs. Apart from allocating funds in the annual budget, the district government may seek financial and technical assistance from national and international NGOs and donor agencies for the successful and timely execution of proposed activities. The 2-year Medium-Term Action Plan includes following activities:

## **YEAR 1**

### **1. Formation, Establishment and Orientation of District Disaster Management Authority (DDMA):**

Being the first step to provide a solid foundation to disaster risk management at the district level, it is essential to have a properly established and functional DDMA as per the requirement set out in the National Disaster Management Ordinance (NDMO), 2006. Following the formation and establishment of DDMA, the orientation of concerned members / staff will be of immense importance to lead the Authority with professional competence. Specific activities include:

An official notification to be issued by the DCO about the establishment of DDMA.

In the light of NDMO and the National Disaster Risk Management Framework, the terms of reference (ToRs) will be developed in respect of roles, responsibilities, mandate and other functions of DDMA.

An official ceremony will be organized to launch the establishment of DDMA.

A 2-day orientation session on disaster risk management will be organized for the members / staff of DDMA.

Purchase of essential IT equipment and furnitures

*Estimated Cost (Pak. Rs.): 200,000/-*

### **2. Orientation Sessions with District Departments, Elected Members and other Stakeholders:**

Three separate orientation sessions by NDMA / PDMA representatives about the structure, roles and mandate of DDMA will be organized to inform, sensitize and take on board the following stakeholders. Each session may span over 3 hours:

The Executive District Officers (EDOs) of all district departments and the heads of offices which have not been devolved under the Devolution of Power Plan but

## Standard Operating Procedures (SOPs)

### 5.1 Standard Operating Procedures (SOPs)

#### 5.1.1. District Disaster Risk Management Plan

The District Disaster Risk Management Plan (DDRMP) is meant to provide operational guidelines to all the stakeholders in the district. Although this legal document of district administration especially by those with roles and responsibilities outlined herein and local government setup operational in the district. Yet the plan facilitates multi stakeholders and provides explicit sketch of the district to provincial and national government, UN agencies, INGOs and NGOs in case of emergencies.

#### 5.1.2. District Disaster Management Authority

District Disaster Management Authority (DDMA) is a supreme body at district level and is responsible for disaster risk management along with all components of DRM. Hence, the major components of DRM will be prioritized such as early warning systems, preparedness, humanitarian response and mitigation. Meanwhile, all the departments coordinated through DDMA will strictly adhere to the following policy rules:

- Clarity of DDRMP, its vision, mission and objectives along with orientation and assignment of responsibilities and duties to the concerned department by Chairman/District Nazim DDMA
- Professional and moral commitment to perform the tasks specified in DDRMP by all the line agencies in district Badin
- Close coordination and collaboration by all the line agencies and district administration irrespective of departmental obligations
- Persuasion of communication protocols for timely reporting and dissemination making different stakeholders able to design timely and appropriate responses
- Ensure humanitarian accountability at all stages
- Monitoring the situation persistently to ensure all the management arrangements timely, appropriate and gender & culture sensitive

#### 5.1.3. District Emergency Operations Centre (DEOC)

- To provide necessary guidelines and operational strategies as per standard procedures and DDRMP on the disastrous situation to district administration, line agencies and NGOs
- To coordinate with the different stakeholders, line agencies, local government, NGOs, UN Agencies and concerned departments
- To support evacuation of the communities and relocation measures taken by concerned department
- Supervision and Monitoring by DDMA and DEOC of disaster management and

- relief activities together with NGOs/UN Agencies
- Coordination by DEOC with different stakeholders and provision of technical support to line agencies and NGOs in conducting Damage and Needs Assessments
- Contact and coordinate by DEOC and DDMA with NGOs, INGOs and UN Agencies for timely support

## 5.2. Warning Mechanism

The receipt of early warning plays key role in disaster risk management and humanitarian response. Pakistan Metrological Department Badin office and the technical agencies are responsible to provide warning information to district administration and DEOC. However, some of the departments such as irrigation & drainage, agriculture (extension & engineering) and NGOs will be contributory factors in establishing updated early warning system.

The related information and warnings of a disasters occurrence will be passed on to Chairman/Secretary of DDMA who will direct DEOC and the concerned departments for immediate response as per situation. In addition to this DDMA will take the following actions in this regard:

- Arrangement of joint meeting of DDMA and district administration for the analysis of situation and proper decision making.
- Delegation of special tasks to concerned authorities/departments as per situation.
- Capacity assessment of district administration and requirement of resources as per situation.

## 5.3. Warning Dissemination Mechanism

DDMA is responsible to ensure the proper execution of DDRMP and all public warnings which will be disseminated through the secretariat of DDMA. The warning will be communicated to the concerned authorities and general public through reliable and appropriate media channels for timely preparedness and response. However, DEOC will be responsible to share the warning and related information with NGOs, INGOs and UN agencies.

## 5.4. Public Information

District Information Officer will be the spokesperson during emergency phase and will be responsible to share warnings and related information with media and public. Hence, DEOC will ensure that the information shared with media and public is appropriate and authentic so that the chances of panic and havoc creation may be minimized. All these media and public briefings will be arranged by DEOC.

## 5.5. Request for Assistance

It is generally assumed that the district administration is one of the key organizations for issuing warnings and alerts and mobilization of required resources in case of emergency. However, the District Disaster management Authority holds the responsibility for the arrangement and mobilization of relief funds. The taluka administration and union councils will make request to the district authorities for the possible involvement of any concerned department to meet the

disaster situation. The DEOC will arrange the coordination mechanism by inviting all concerned NGOs and institution to put their efforts by working together with DDMA for reducing the impacts of the disaster. In case of large scale emergency which is beyond the coping capacity of DDMA and abundant resources are required. The chairman/secretary of DDMA will submit an official request to Provincial Disaster Management Authority for immediate response. The DDMA will be responsible for providing detailed information on needs and logistic arrangements to assist PDMA to meet the requests as quickly and effectively as possible.

#### **5.6. Revenue Department**

- Conducting coordination meeting with all DDOs (Revenue) for situation analysis of the affected areas and population.
- Development of coordination mechanism and communication protocols.
- Arrangement and conduction of damage, losses and need assessments.
- Ensure application of proper mechanism for evacuation and re-location of affected community to safer places.
- Establishment of Relief Camps with necessary arrangements.

#### **5.7. Health Department**

- Arrangement of coordination meeting with health units.
- Mobilization the entire health network functioning in the district for situation analysis. and need assessment .
- Arrangement of mobile teams for pre-medication of affected communities.
- Provision of necessary medical facilities at relief camps.
- Making coordination and communication with DEOC.

#### **5.8. Agriculture Department**

- Conduction of assessment of crops, livestock, fisheries, forest and soil losses.
- Share major findings and recommendations with DEOC for immediate response.
- Establishment of veterinary centres for necessary services (vaccination & deworming. of livestock and animal feed).
- Development of action plans for reclamation and rehabilitation of degraded lands.

#### **5.9. Works and Services**

- Coordination meeting with all SDOs for situational reporting about length of damage of community infrastructures and services.
- Arrangement of immediate response for the maintenance of communication means facilitating effective response delivery to the affected people.
- Development of coordination mechanism with DEOC.
- Support DEOC and district administration for development of rehabilitation proposals for the development of affected people and areas.

#### **5.10. Police**

Dissemination of early warnings received by DEOC to vulnerable areas through police stations and posts.

Make logistical arrangements for evacuation and supply of relief work in with coordination of DEOC and revenue department.

Management of necessary security arrangements for relief camps and affected areas.

Coordination and communication with DEOC.

### 5.11. Irrigation & Drain

Development of coordination mechanism with PMD for ascertaining flood discharge.

Development of mechanism for regulation of water discharge into canals, distributaries and drains before onset of monsoon season.

Development of monitoring mechanism for inspection of embankments, weak parts of drains, IPs (inspection parts) and NIPs (non inspection parts of all irrigation channels).

Delegation of responsibilities for regular inspection and maintenance of irrigation channels and drains.

Coordination and communication with DEOC.

### 5.12. Information Management

In disasters, how the press conveys information to the public can magnify or reduce psychosocial distress for the “at risk” population. There are certain key principles that are often applicable to both types of disaster. The media is an important factor in conveying the extent and severity of the damage caused by a disaster to the external world and more often than not, they are the first to reach the disaster affected areas.

Therefore, it becomes essential that the media are given a concise picture of the extent of the damage from the information collected by the assessment method. A summary of the data collected could be made available at the end of the assessment process that conveys all pertinent information. Frightening news, if repeated many times to a community can magnify fears, leading to widespread stress and anxiety. This can be manifested in many forms and can ultimately impair decision-making processes, causing people to take wrong mitigation measures to protect themselves.

People who are not physically affected by a catastrophe, but who live within range of potential, possibly long-term and largely unknown dangers may be frightened by both proximity to the danger and the lack of credible information. To a large extent, the degree of fear and insecurity due to the lack of credible information will determine people's attitudes and overall behaviour. Communication of emergency information should consider the following:

- ❖ Information should be controlled by a single public spokesperson who openly cooperates with the press.
- ❖ The press should also convey information on risk management and safety measures

## Conclusion

Badin district has been encountering number of challenges to achieve sustainable development in true sense. These challenges are not relevant with particular department, sector or institute; rather it germens to all. Having good opportunities of investment in different sectors no one is willing due to frequent occurrences of disasters which liquidates the investment.

The development of District Disaster Risk Management Plan is once of the great achievement of government of Pakistan. Before initiation of National Disaster Management Framework the relief activities were carried out under Calamity Act 1952 that was more centralized and was based on bilateral approach.

This plan address the vulnerability of various union councils, talukas and clusters of villages in situated in the most vulnerable areas. The plan also provides a separate volume on Standard Operating Procedures, details the responsibilities and duties of different departments to be activated during an emergency. This plan has been prepared taking into account the existing infrastructure, available resources, previous type of disasters that have occurred and their possibility of recurrence in future. It is meant to serve as an action plan for the District Administration, as well as to the other governmental organizations, NGOs, UN agencies and others.

DDRMP provides operational space along with procedural guidelines for execution of emergency Repones with the participation of people and different stake holders. This is not denying the fact that if it is a major calamity, or small scale disaster, people play an important role in preparing for the management of the emergency situations, and in re-building the disrupted services and infrastructure. Risk management is part and parcel of the life of millions of people living in poverty in Sindh province. Hence, Women are the first to provide nursing care to the family members in case of any emergency. The involvement of people in emergency response is one of the remarkable features of this plan.

This plan is guide tool which will be reviewed every year by all stakeholders' suggestion to make it more districts specified for minimizing the risks of the natural and man made disaster situation.





# ANNEXES



## Part I: District Information

### Map of Badin

Badin district has been encountering number of challenges to achieve sustainable development in true sense. These challenges are not relevant with particular department, sector or institute; rather it germens to all. Having good opportunities of investment in different sectors no one is willing due to frequent occurrences of disasters which liquidates the investment.

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## Details of Medical Facilities

S.No.	Name	Location	Doctors/ Paramedics	Status
1.	Civil Hospital	Badin	238	Functional
2.	Taluka Hospital	Matli	102	Functional
3.	Taluka Hospital	SF Rahu	99	Functional
4.	Taluka Hospital	Tando Bago	98	Functional
5.	Basic Health Unit	G. Hussain Parhyar	9	Functional
6.	Basic Health Unit	Haji M. Boohar	10	Functional
7.	Basic Health Unit	Punjabi Chak	12	Functional
8.	Basic Health Unit	Yousif Shah	9	Functional
9.	Basic Health Unit	Yousif Soomro	10	Functional
10.	Basic Health Unit	A. Murad Chandio	9	Functional
11.	Basic Health Unit	Artlary Chak -1	9	Functional
12.	Basic Health Unit	Behdami	10	Functional
13.	Basic Health Unit	Ali Bux Shah	10	Functional
14.	Basic Health Unit	Wali M. Malkani	9	Functional
15.	Basic Health Unit	Khalifo Qasim	9	Functional
16.	Basic Health Unit	Khalifo Dada	9	Functional
17.	Basic Health Unit	Saeed K. Bhurgri	9	Functional
18.	Basic Health Unit	Rip	9	Functional
19.	Basic Health Unit	Saeedpur	10	Functional
20.	Basic Health Unit	Ghulam Shah	10	Functional
21.	Basic Health Unit	GM Nizamani	9	Functional
22.	Basic Health Unit	Tarai	13	Functional
23.	Basic Health Unit	Mataro Mandhro	9	Functional
24.	Basic Health Unit	Garho	11	Functional
25.	Basic Health Unit	Ahmed Rajo	10	Functional
26.	Basic Health Unit	Khorwah	11	Functional
27.	Basic Health Unit	Juna	10	Functional
28.	Basic Health Unit	Rahooki	8	Functional
29.	Basic Health Unit	A. M. Maheri	10	Functional
30.	Basic Health Unit	Phalkara	9	Functional
31.	Basic Health Unit	Ch. Fateh M.	13	Functional
32.	Basic Health Unit	Nabi Bux Panjabi	9	Functional
33.	Basic Health Unit	Haji Nizamdin	11	Functional
34.	Basic Health Unit	Mir. M. Nizamani	10	Functional
35.	Basic Health Unit	Dodo Gishkori	12	Functional
36.	Basic Health Unit	Gulab Leghari	12	Functional
37.	Basic Health Unit	Kapri Morri	10	Functional
38.	Basic Health Unit	Abdullah Shah	9	Functional
39.	Basic Health Unit	Lal Bux Notkani	10	Functional
40.	Rural Health Centre	Tando Ghulam Ali	50	Functional
41.	Rural Health Centre	Talhar (THQ)	45	Functional
42.	Rural Health Centre	Rajo Khanani	15	Functional

43.	Rural Health Centre	Dai	30	Functional
44.	Rural Health Centre	Pangrio	34	Functional
45.	Rural Health Centre	Khoski	38	Functional
46.	Rural Health Centre	Kadhan	49	Functional
47.	Rural Health Centre	Bhugra Memon	05	Functional
48.	Rural Health Centre	Kario Ghanhwar	29	Functional
49.	Rural Health Centre	Fazal M. Talpur	9	Functional
50.	Rural Health Centre	Khanani Jat	9	Functional
51.	Rural Health Centre	Nindo	21	Functional
52.	Dispensary	Motan Chandio	6	Functional
53.	Dispensary	Bhuro Sahib Talhar	6	Functional
54.	Dispensary	Soorhadi Matli	6	Functional
55.	Dispensary	Baghli Golarchi	6	Functional
56.	Dispensary	Manak Laghari Matli	4	Functional
57.	Dispensary	Gehnoon Khan Matli	4	Functional
58.	Dispensary	Biro Lanjwani Matli	4	Functional
59.	Dispensary	Abdullah Golarchi	4	Functional
60.	Dispensary	Lakhopir Badin	3	Functional
61.	Dispensary	Keerio Bhandari Badin	3	Functional
62.	Dispensary	Abdullah Soomro Badin	3	Functional
63.	Dispensary	M. Bux Badin	5	Functional
64.	DHDC	Badin	10	Functional
65.	Nursing School	Badin	50	Functional

## List of Police Stations/Police Posts

S. No.	Name of PS	Name of Police Posts
1.	PS Badin	PP Town
		PP Nindo
		PP Seerani
		PP Lunwari Sharif
2.	PS	Kadhan
3.	PS Talhar	PP Rajo Khanani
4.	PS Shaheed Fazal Rahu	PP Khorwah
		PP Girari
5.	PS Kario Ganhwar	PP Tarai
6.	PS Matli	PP Phulkara
7.	PS Tando Ghulam Ali	PP Bhudo Qambrani
8.	PS Ghulab Leghari	-
9.	PS Tando Bago	PP Dai
10.	PS Pangrio	PP Khoski
		PP Khairpur Gamboh
		PP Hayat Khaskheli

## Details of Veterinary Services

S. No.	Location	Name of Service
1.	Badin	Centre
2.	Lunwari Sharif	Centre
3.	Nindo	Centre
4.	Kadhan	Centre
5.	Tando Bago	Centre
6.	Manak Leghari	Centre
7.	Ghulam Shah	Centre
8.	Shadi Large	Centre
9.	Pangrio	Centre
10.	Talhar	Centre
11.	Saeedpur	Hospital
12.	Tando Ghulam Ali	Dispensary
13.	S. Juneja	Centre
14.	Choudhri Ghulam Ali	Centre
15.	S. Soomro	Centre
16.	Matli	Dispensary
17.	Phalkara	Centre
18.	Gahno Khan Leghari	Centre
19.	SF Rahoo	Dispensary
20.	SK Nizamani	Centre
21.	Juna	Centre
22.	Bajari Sharif	Centre
23.	Seerani	Centre
24.	MB Nizamani	Centre
25.	Khamor Bhatti	Centre
26.	Bhugra Memon	Centre



## Details of Government Schools/Colleges

S. No.	Description	Boys	Girls	Total
1.	Government High School Hyderabad Road Badin	Boys	-	1
2.	Iqra High School Post Office Road Badin	-	Girls	1
3.	Government High School Gharibabad	Boys	-	1
4.	Government Higher Secondary School Tando Bago	Boys	-	1
5.	Government Higher Secondary School SF Rahoo	Boys	-	1
6.	Government High School SF Rahoo		Girls	1
7.	Government High School Tarai	Boys	-	1
8.	Government High School Kario Ghanhwar	Boys	-	1
9.	Government High School Khorwah	Boys	-	1
10.	Government High School Garho	Boys	-	1
11.	Government High School Qaid-e-Azam Road Badin	-	Girls	1
12.	Poly Technical Collage Badin	Boys	-	1
13.	Government Islamia Degree Collage	Boys	-	1
14.	Laar Campus of Sindh University Jamshoro	Boys	Girls	1
15.	Mono Technical Collage Matli	Boys	-	1
16.	Mono Technical Collage Tando Bagho	Boys	-	1
17.	Government Collage & Service Centre Badin	Boys	-	1
18.	Vocational Girls School Badin	-	Girls	1
19.	Vocational Girls School Matli	-	Girls	1
20.	Vocational Girls School Tando Ghulam Ali	-	Girls	1
21.	Primary Schools in the entire district	2857	357	3232

The following schools are used as re-location point in case of emergency by district administration:

S. No.	Name	Location
1.	Government Islami Degree College	Badin
2.	Government College Hostel Block	Badin
3.	Government Girls Marvi College	Badin
4.	Government Service Centre	Badin
5.	Government Polytechnic Institute	Badin
6.	Government Technical Training Centre	Badin
7.	Government Commercial Training Centre	Badin
8.	Government Boys Primary School Sindhi	Badin
9.	Government (P) School Urdu	Badin
10.	Government Primary School	Haji Khameso Bhatti
11.	Government Primary School	Gharibabad
12.	Government Primary School	Agrovil Colony
13.	Government Primary School	Aali Shah Kot
14.	Government Elementary College	Badin
15.	Government Girls High School	Badin -I
16.	Government Girls High School	Badin -II
17.	Government Boys High School	Badin -I
18.	Government High School (Boys)	Talhar

19.	Government High School (Sab)	Talhar
20.	Government Boys Primary Schools	Talhar
21.	Government Girls High Schools	Talhar
22.	Government (P) College	Saeedpur
23.	Government High School (Boys)	Saeedpur
24.	Government High School	Rajo Khanani
25.	Government High School	Ghulam Shah Mori
26.	Government High School	Kadaro
27.	Government High School	G. M. Nizamani
28.	Government High School (B)	Piru Lashari
29.	Government High School	Tando Bago
30.	Government Girls High School	Tando Bago
31.	Government Boys Primary School	Tando Bago
32.	Government Mono Technical Institute	Tando Bago
33.	Government High School	Khalifo Kasim
34.	Government High School	Pangrio
35.	Government High School	Wali M. Malkani
36.	Government High School	Haji Khan Chandio
37.	Government High School	Baloch Chak
38.	Government High School	Khoski
39.	Government Boys High School	SF Rahoo
40.	Government Girls High School	SF Rahoo
41.	Government Girls Primary School	SF Rahoo
42.	Government Girls Primary School	SF Rahoo
43.	Government High School	SF Rahoo
44.	Government Boys High School	Kario Ghawar
45.	Government Boys Degree College	Matli
46.	Government High School	Matli-I
47.	Government High School	Matli –II
48.	Government Girls High School	Matli
49.	Government Mono Technical Institute	Matli
50.	Government Middle School	Jameel Colony
51.	Government Girls Primary School	Matli
52.	Government High School	Malano
53.	Government High School	Gulab Laghari
54.	Government High School	Umer Din Panjabi
55.	Government High School	Haji Sawan
56.	Government Girls High School	Tando G. Ali
57.	Government High School	Tando G. Ali

## Radio, TV and Newspaper Contacts

#	Radio/TV/Newspaper		Focal Point	Contact
<b>Press Club Badin (0297 861944)</b>				
1.	PTV Karachi	TV	Malik Illyas	0333 2529900
2.	Sindh TV	TV	A. Shakoor Mallah	0304 2900678
3.	Aaj TV	TV	Shafi Memon	0345 3690427
4.	Rang TV	TV	Gul Hassan	0333 2533970
5.	A TV	TV	Gul Hassan	0333 2533970
6.	Roshni TV	TV	G. Rasool Memon	0345 3690510
7.	Dhoom	TV	Shafi Memon	0333 2529227
8.	Sun TV	TV	G. Rasool Memon	0333 2529227
9.	Business Plus	Newspaper	Suhail Memon	0333 2522899
10.	Dunya, Shaam & Nao Sij	Newspaper	Altaf Memon	0346 3757137
11.	Jeo News		Rais Imran	0333 2529519
12.	Royal TV	TV	Raja Shakeel Ahmed	0333 2521318
13.	ARY	TV	Tanveer	0333 2520789
14.	FM 92	FM	Zaffar Khaskheli	0333 2528131
15.	Sachal FM	FM	Zaffar Khaskheli	0333 2528131
16.	Daily Jang	Newspaper	Rais Imran	0333 2529519
17.	Daily Nation	Newspaper	Shafi Memon	0333 2529227
18.	Daily Khabroon	Newspaper	A. Razaque Khatti	0333 2525005
19.	Daily Jorat	Newspaper	Shafi Memon	0333 2529227
20.	Daily Sindhu	Newspaper	Nafess-ur-Rehman	0333 2531590
21.	Daily Mushrique	Newspaper	Nafess-ur-Rehman	0333 2531590
22.	Daily Islam & Pak	Newspaper	Usman Ansari	0332 3887242
23.	Daily Ibrat	Newspaper	Ashraf Memon	0333 2545997
24.	Daily Awami Awaz	Newspaper	Anees Memon	0333 2597993
25.	Daily Nawa-e-Waqit	Newspaper	Malik Illyas	0333 2529900
26.	Daily Hilal Pakistan	Newspaper	A. Latif Zargar	0333 2520771
27.	Daily Faissilo	Newspaper	A. Majeed Mallah	0322 3887922
28.	Daily Sindh	Newspaper	Suleman Mandhro	0333 2523393
29.	Daily Jisarat	Newspaper	Allah Rakhio Mallah	0304 2916249
30.	Daily Mehran	Newspaper	Khalid Abassi	0333 3399354
31.	Daily Pak	Newspaper	Dodo Panhwar	0332 3889212
<b>Chamber of Journalists Badin (0297 862033)</b>				
1.	KTN	TV	Haroon Gopang	0333 2521016
2.	Daily Kawish	Newspaper	G. Mustafa Jamali	0333 2520731
3.	Free Lancer	-	Abida Jamali	0333 2548304
4.	Daily Shaam	Newspaper	Haroon Gopang	0333 2521016
5.	Daily Koshish	Newspaper	Nasir Ali Abassi	0333 2521249
6.	Daily Kainaat	Newspaper	M. Usman Nohrio	0333 2520518
7.	Daily Aass	Newspaper	Maqsood Chandio	0333 2541006
8.	Daily Nijaat	Newspaper	Ali M. Soomro	0333 2540787
9.	Daily Halchal	Newspaper	Nusrat Jafferri	0333 2524255

10.	Daily Sobh	Newspaper	Shafi M. Junejo	0333 2523391
11.	Daily Ummat	Newspaper	Arsalan Yaseen	0333 2529714
12.	Daily Intakhab	Newspaper	A. Salam Umrani	0333 2527550
13.	Daily Sukaar	Newspaper	Roshan Hashmani	0333 2536709
14.	Daily Awami Awaz	Newspaper	Razaque Dino Khoso	0333 2540659
15.	Daily Alaan-e-Haque	Newspaper	Zaheer Haideri	0333 2522589
16.	Daily Nawa-e-Waqit	Newspaper	Khalid Memon	0302 3054786
17.	Daily Mehran	Newspaper	M. Aslam Memon	0297 744150
18.	Daily Sindhu	Newspaper	Mushtaque Memon	0345 3694078
19.	Daily Dawn	Newspaper	Hashim Bhurgri	0304 2900638

## List of NGOs in the District

S.#	Name of NGO	Full Address	Focal Point
1	Laar Humanitarian and Development Programme (LHDP)	Mr. Iqbal Haider	Main Kadhan Road Badin 0297 861959 Email: lhdp_org@yahoo.com
2	Badin Development & Research Organization (BDRO) Badin	Mr. Mohammed Khan Samoon	Near new Seerani bus stop, Seerani Road Badin (0277-861429) Email: bdrobadin@hotmail.com
3	Badin Rural Development Society (BRDS) Badin	Mr. Dr. Akash Ansari	Near Badin X-ray, Badin (0297-861683) Email: brdsngo@yahoo.com
4	Laar Development Association (LDA) Badin	Mr. Ghulam Hussain Mallah	Golarchi Road Badin, (0297-862318) Email: laarbadin@hotmail.com
5	Society for Science, Education and Research (SSER) Badin	Mr. Khadim Talpur	Shah Latif Public School , Seerani Road Badin (0297-862303) Email: sserbadin@hotmail.com
6	Young Sheedi Welfare Organization Badin	Mr. Allah Bachayo	Abid Town Badin
7	Sindh Aurat Development Association Badin	Ms. Dr. Najma Junejo	Kadhan road Badin (0227-61143)
8	Nindo Shahar Welfare Association Nindo Shahar, Taluka Badin	Mr. M. Khatti	PO Nindo Shahar Taluka Badin (0227-720282)
9	Village Development Association Village Moosa Soomro, Badin	Mr. M. Suleman Soomro	C/o Sagar Tailor Near Mohammadi Petroleum Services Badin 0227-61346
10	Sukh Des Development Society Talhar	Mr. Anwar Panjwani	PO Talhar District Badin (0227-730126)
11	Pakistan International Peace & Human Rights Organization	Mr. Fayaz H. Abro	PO Nindo Shahar Taluka Badin (0227-720227) Email: piphro@yahoo.com
12	Sindh Graduates Association	Rafique Jafferri	Memon hall district council road Badin
13	Sindh Abadgar Board	Mr. Nawaz Memon	0297 861149/ 861237/ 861697
14	Family Planning Association of Pakistan	Ms. Razia Ujjan	Bagh Mohalla Badin Ph. 0297 861306
15	National Rural Support Programme	G. Rasool Soomro	Al-Aman Hotel Hyderabad Road Badin 0297 862253
16	Preh Phuti Welfare Association Matli	Mr. Karim Nohrio	Village Ali Mohammed PO Kapri Mori Taluka Matli
17	ECO Friends Society	Mr. MB Phalkara	Main water supply road Badin (0297 8) Email: efs_org@yahoo.com
18	Pakistan Fisher folk Forum	Mr. Mithan	Main Cantt road Badin

## Machinery & Equipments Available in the District with Different Stakeholders

Name	Machinery	Equipments	Qty.	Status
TMA Matli	Fire brigades	-	01	in working condition
TMA Talhar	Fire brigades	-	01	Good condition
TMA SF Rahoo	Fire brigades	-	01	Good condition
TMA Badin	Fire brigades	-	02	01 in good & 01 in poor condition
Civil Hospital Badin	Ambulances	-	06	03 working, 03 out of order
Taluka Hospital Matli	Ambulances	-	06	01 working, 05 out of order
Taluka Hospital SF Rahu	Ambulances	-	03	01 working, 02 out of order
Taluka Hospital Tando Bagho	Ambulances	-	03	01 working, 02 out of order
BHU Tando Ghulam Ali	Ambulances	-	04	01 working, 03 out of order
RHC Kadhan	Ambulances	-	02	02 out of order
RHC Kario Ghanhwar	Ambulances	-	02	02 out of order
Revenue Department	-	Dewatering Machines	15	04 working, 011 out of order
TMA Badin	-	Dewatering Machines	9	07 working, 02 out of order
TMA Tando Bago	-	Dewatering Machines	7	06 working, 01 out of order
TMA Matli	-	Dewatering Machines	8	06 working order
TMA Talhar	-	Dewatering Machines	5	05 working order
TMA SF Rahoo	-	Dewatering Machines	11	09 working, 02 out of order
LHDP Main Kadhan Road Badin Ph. & Fax: 0297 861959 Email: lhdp_org@yahoo.com	02 Fibre Glass OBY 30 & 40 hp engines with trolleys, 01 vehicle,	25 life saving jackets, 15 staff emergency kits, 100 latrine slabs, 500 packets of Musaffa, 1000 hygiene kits, 1000 plastic sheets, 500 buckets, 05 computers, 01 printer and 01 fax machine		All mentioned items are in working order

Proper godowns are not available in the public sector, organizations; however railways sheds were used as godowns during transportation of food grain after post harvesting. Currently, these godowns need repair and maintenance to be used in future. However, Laar Humanitarian and Development Programme has its warehouse situated at main city. It has good capacity to accommodate relief items and material; the size of this warehouse is 25 x 100 ft.

Meanwhile, heavy machinery such as dumpers, dozers, rollers, excavators, tractors, levellers and rest of other related machinery is available on rent in the district. The contact details of such

S. No.	Name	Address	Contact
1.	FATA Heavy Equipments	Khoski Road Badin	0300 3280344
2.	Khyber Heavy Machinery & Equipment Supplier	Hyderabad Road Badin	0297 86

Mr. Aashique Hussain Khuwaja (cell: 0333 2521060) is the contact person of the 'Indus Associates' in Badin district. The 'Indus Associates' is the potential supplier which can supply relief goods and items within a short notice the required items & quantity and who have good experience of such

## List of the Most Vulnerable Villages Along LBOD<sup>1</sup>

#	Name of Village	Union Council	Taluka	Households	Population
1	Shadman Lund	Bhugra Memon	Badin	33	165
2	Bahadar Khan Lund	Bhugra Memon	Badin	13	86
3	Chakar Khan Lund	Bhugra Memon	Badin	10	65
4	M Hassan Mandhro	Bhugra Memon	Badin	12	84
5	Tharoo Mallah	Bhugra Memon	Badin	24	198
6	Dodo Lund	Bhugra Memon	Badin	13	87
7	Gul Mohd. Lund	Bhugra Memon	Badin	34	215
8	Ismail Bhatti /Jhanjhoo Dal	Bhugra Memon	Badin	84	348
9	Darya Khan Lund	Bhugra Memon	Badin	33	147
10	Missri Mandhro	Bhugra Memon	Badin	24	130
11	Khuda B. Mandhro	Bhugra Memon	Badin	13	98
12	A. Rehman Bhatti	Bhugra Memon	Badin	36	205
13	Umaid Ali Boohar	Bhugra Memon	Badin	25	200
14	M. Ali Chandio	Bhugra Memon	Badin	43	260
15	Allahdino Chandio	Bhugra Memon	Badin	13	76
16	Behdmi Proper	Bhugra Memon	Badin	200	1000
17	Ramzan Dal	Bhugra Memon	Badin	45	256
18	Hoat Mallah	Bhugra Memon	Badin	32	187
19	Haq Mallah	Bhugra Memon	Badin	55	278
20	Chutto Mallah	Bhugra Memon	Badin	13	134
21	Photo Mallah	Bhugra Memon	Badin	12	137
22	Faqir Mohd. Mallah	Bhugra Memon	Badin	14	153
23	Allah Bachayo	Bhugra Memon	Badin	43	267
24	Haji Hashim Mallah	Bhugra Memon	Badin	32	216
25	Bux Ali Mallah	Bhugra Memon	Badin	23	165
26	Gul Mohd. Talpur	Bhugra Memon	Badin	53	268
27	Hanif Mallah	Bhugra Memon	Badin	60	240
28	Umer Khaskheli	Bhugra Memon	Badin	13	156
29	Ramzan Khaskheli	Bhugra Memon	Badin	14	138
30	Darya K. Khaskheli	Bhugra Memon	Badin	12	131
31	Vikio Khaskheli	Bhugra Memon	Badin	15	124
32	Abdullah Mallah	Bhugra Memon	Badin	23	198
33	Molvi Haji A. Mallah	Bhugra Memon	Badin	13	98
34	Yousif Mallah	Bhugra Memon	Badin	17	143
35	Yousif Bhatti	Bhugra Memon	Badin	32	200
36	Ismail Mallah	Bhugra Memon	Badin	54	150
37	Qabool Mohd. Shah	Bhugra Memon	Badin	21	132
38	Ramzan Sheedi	Bhugra Memon	Badin	12	123
39	Ibrahim Mallah	Bhugra Memon	Badin	14	145
40	Faqir Mohd. Mallah	Bhugra Memon	Badin	16	164
41	Usman Peri	Bhugra Memon	Badin	32	153



#	Name of Village	Union Council	Taluka	Households	Population
42	Usman Kamdar	Bhugra Memon	Badin	14	163
43	Saith Juman Mallah	Bhugra Memon	Badin	32	134
44	Meehan Wasayo	Bhugra Memon	Badin	24	198
45	Khamoon Mallah 1	Bhugra Memon	Badin	13	156
46	Khamoon Mallah 2	Bhugra Memon	Badin	15	176
47	Gaji Mallah	Bhugra Memon	Badin	13	153
48	Sheikh Kirio	Bhugra Memon	Badin	36	215
49	Mohd. Mallah	Bhugra Memon	Badin	12	174
50	Chanesar Mallah	Bhugra Memon	Badin	16	156
51	Natho Mallah	Bhugra Memon	Badin	14	154
52	Allah Bachayo	Bhugra Memon	Badin	24	187
53	Haji Sakhi Mandhro	Bhugra Memon	Badin	76	350
54	Morio Mandhro	Bhugra Memon	Badin	21	187
55	Golo Mandhro	Bhugra Memon	Badin	103	590
56	Ibrahim Mandhro	Bhugra Memon	Badin	15	180
57	Lakhadino Rajo	Bhugra Memon	Badin	16	177
58	Missri Mallah	Bhugra Memon	Badin	24	230
59	Illyas Mallah	Bhugra Memon	Badin	14	95
60	Allahbachayo Jat	Bhugra Memon	Badin	23	199
61	Khan Mohd. Mallah	Bhugra Memon	Badin	26	236
62	Roopa Mari	Bhugra Memon	Badin	15	93
63	Bhugra Memon	Bhugra Memon	Badin	150	935
64	Deenar Talpur	Bhugra Memon	Badin	250	1275
65	Siddique Mallah	Bhugra Memon	Badin	13	83
66	Sharif Mandhro	Bhugra Memon	Badin	14	91
67	Bakhsho Dero	Bhugra Memon	Badin	56	302
68	Ramzan Jat	Bhugra Memon	Badin	15	85
69	Fazal Khaskheli	Bhugra Memon	Badin	42	285
70	General Bang low	Bhugra Memon	Badin	15	115
71	Fazal Jat	Bhugra Memon	Badin	14	111
72	A. Rehman Jat	Bhugra Memon	Badin	23	174
73	M. Rahim Boohar	Bhugra Memon	Badin	26	207
74	Wali Mohd. Punjabi	Bhugra Memon	Badin	41	321
75	Yousif Mallah	Bhugra Memon	Badin	34	235
76	Huzoori Khaskheli	Bhugra Memon	Badin	64	406
77	Mohd. Qambrani	Bhugra Memon	Badin	50	345
78	Allahbachayo Talpur	Bhugra Memon	Badin	67	484
79	Pandhi Mallah	Bhugra Memon	Badin	14	107
80	Salleh Lohar	Bhugra Memon	Badin	15	95
81	Basar Mallah	Bhugra Memon	Badin	12	86
82	Haji Manthar Dal	Bhugra Memon	Badin	15	117
83	Mir Notiar	Bhugra Memon	Badin	36	189
84	Datoo Mallah	Kadhan	Badin	34	287
85	Yaqoob Khaskheli	Kadhan	Badin	25	184
86	Mohd. Ali Chandio	Kadhan	Badin	76	265
87	Darya K. Chandio	Kadhan	Badin	84	387
88	Jumoon Subero	Kadhan	Badin	150	875

#	Name of Village	Union Council	Taluka	Households	Population
89	Vikio Lanjar	Kadhan	Badin	34	232
90	Missri Chandio	Kadhan	Badin	28	179
91	Sono Khan Chandio	Kadhan	Badin	13	87
92	Juman Mallah	Kadhan	Badin	56	398
93	Khaber Mallah	Kadhan	Badin	52	384
94	Ismail Notiar	Kadhan	Badin	34	279
95	Gul Mohd. Thebo	Kadhan	Badin	27	231
96	Hassan Notiar	Kadhan	Badin	46	324
97	Punhoon Jamali	Kadhan	Badin	13	81
98	Ramoon Jamali	Kadhan	Badin	15	107
99	Jumoon Patial	Kadhan	Badin	14	97
100	Datoo Notiar	Kadhan	Badin	25	269
101	Malhar Mallah	Kadhan	Badin	32	237
102	Siddique Dars	Kadhan	Badin	24	213
103	Ali Bangali	Kadhan	Badin	68	453
104	Hashim Mallah	Kadhan	Badin	33	298
105	A. Hingorjo	Kadhan	Badin	25	283
106	Eissa Notiar	Abdullah Shah	Badin	34	318
107	Ghulam Ali Jamali	Abdullah Shah	Badin	45	367
108	Eidoo Jamali	Abdullah Shah	Badin	35	297
109	Soomar Jamali	Abdullah Shah	Badin	50	348
110	Salleh Nohrio	Abdullah Shah	Badin	103	723
111	A. Shah Proper	Abdullah Shah	Badin	100	685
112	Mohd. Khaskheli	Abdullah Shah	Badin	14	102
113	Lakhadino Mallah	Abdullah Shah	Badin	36	213
114	Mataro Thebo	Abdullah Shah	Badin	43	309
115	Ali Mohd. Mallah	Abdullah Shah	Badin	12	85
116	Loung Bajir	Abdullah Shah	Badin	14	111
117	Haji Mohd. Boohar	Abdullah Shah	Badin	76	483
118	Hussain Jamali	Abdullah Shah	Badin	23	186
119	Yaqoob Jamali	Abdullah Shah	Badin	25	215
120	Aaqil Dal	Abdullah Shah	Badin	37	327
121	Haji Abdullah Khor	Abdullah Shah	Badin	15	114
122	Manoo Kolhi	Mithi Three	Badin	23	185
123	Sado Kolhi	Mithi Three	Badin	34	247
124	Allahdino Soomro	Mithi Three	Badin	41	293
125	Chakar Panwar	Mithi Three	Badin	78	541
126	Vidri Chaq	Mithi Three	Badin	65	513
127	Hamid Brohi	Mithi Three	Badin	34	287
128	Itlary Chak	Mithi Three	Badin	28	234
129	Ramzan Mallah	Mithi Three	Badin	32	248
130	Dimi Sheedi	Mithi Three	Badin	36	293
131	Gul Mohd. Channa	Mithi Three	Badin	59	384
132	Hassan Lund	Mithi Three	Badin	81	612
133	Mohd. Urs Lund	Mithi Three	Badin	45	321
134	Ahmed Khan Lund	Mithi Three	Badin	23	196
135	Ali Murad Khatti	Mithi Three	Badin	26	223

#	Name of Village	Union Council	Taluka	Households	Population
136	Mohd. Khan Notiar	Mithi Three	Badin	41	321
137	Bhaledino Lund	Mithi Three	Badin	32	296
138	Sobho Kolhi	Mithi Three	Badin	35	302
139	Hosho Sheedi	Mithi Three	Badin	43	324
140	Pandhi Lund	Mithi Three	Badin	26	271
141	Mevo Khan Lund	Mithi Three	Badin	43	327
142	Haji Panwar	Mithi Three	Badin	13	84
143	Fateh Mohd. Jagoro	Mithi Three	Badin	24	213
144	Saalar Soomro	Dai Jarkas	T. Bago	35	341
145	Yamin Soomro	Dai Jarkas	T. Bago	8	27
146	Khamoon Nohrio	Dai Jarkas	T. Bago	32	297
147	Mohd. Dars	Dai Jarkas	T. Bago	26	273
148	Ishaque Lakho	Dai Jarkas	T. Bago	16	123
149	Palio Khaskheli	Dai Jarkas	T. Bago	80	621
150	Nerhari	Ahmed Rajo	Golarchi	40	300
151	Arab Mallah	Ahmed Rajo	Golarchi	30	215
152	Zero Point	Ahmed Rajo	Golarchi	175	1890
153	Bachal Dandal	Ahmed Rajo	Golarchi	16	135
154	Haroon Rajo	Ahmed Rajo	Golarchi	30	195
155	G. M. Samejo	Ahmed Rajo	Golarchi	35	245
156	Yamin Jat	Ahmed Rajo	Golarchi	120	823
157	Soomar Richho	Ahmed Rajo	Golarchi	25	197
158	Ismail Theamore	Ahmed Rajo	Golarchi	36	200
159	Sukhio Rajo	Ahmed Rajo	Golarchi	35	210
160	Mohd. Hassan Rajo	Ahmed Rajo	Golarchi	50	600
161	Ibrahim Theamore	Ahmed Rajo	Golarchi	20	135
162	Mir Mohd. Soomro	Ahmed Rajo	Golarchi	12	77
163	Ahmed Rajo Proper	Ahmed Rajo	Golarchi	270	2173
164	Allah Warayo Dario	Ahmed Rajo	Golarchi	40	500
165	Dawood Nohrio	Ahmed Rajo	Golarchi	40	450
166	Garahari	Ahmed Rajo	Golarchi	70	413
167	Vikio Khaskheli	Ahmed Rajo	Golarchi	25	190
168	Chak 84 Regulator	Ahmed Rajo	Golarchi	30	240

## List of the Villages Affected by Cyclone A-2<sup>1</sup>

#	Name of villages	Union Council	Taluka	Households	Population
1	Nerhari	Ahmed Rajo	Badin	40	300
2	Arab Mallah	Ahmed Rajo	Badin	30	215
3	Zero Point	Ahmed Rajo	Badin	175	1890
4	Bachal Dandal	Ahmed Rajo	Badin	16	135
5	Haroon Rajo	Ahmed Rajo	Badin	30	195
6	Ghulam Mohd. Samejo	Ahmed Rajo	Badin	35	245
7	Yamin Jat	Ahmed Rajo	Badin	120	823
8	Soomar Richho	Ahmed Rajo	Badin	25	197
9	Ismail Theamore	Ahmed Rajo	Badin	36	200
10	Sukhio Rajo	Ahmed Rajo	Badin	35	210
11	Mohd. Hassan Rajo	Ahmed Rajo	Badin	50	600
12	Ibrahim Theamore	Ahmed Rajo	Badin	20	135
13	Mir Mohd. Soomro	Ahmed Rajo	Badin	12	77
14	Ahmed Rajo Proper	Ahmed Rajo	Badin	270	2173
15	Allah Warayo Dario	Ahmed Rajo	Badin	40	500
16	Dawood Nohrio	Ahmed Rajo	Badin	40	450
17	Garahari	Ahmed Rajo	Badin	70	413
18	Vikio Khaskheli	Ahmed Rajo	Badin	25	190
19	Chak 84 Regulator	Ahmed Rajo	Badin	30	240
20	Usman Kamdar	Bhugra Memon	Badin	14	163
21	Saith Juman Mallah	Bhugra Memon	Badin	32	134
22	Meehan Wasayo Mallah	Bhugra Memon	Badin	24	198
23	Khamoon Mallah 1	Bhugra Memon	Badin	13	156
24	Khamoon Mallah 2	Bhugra Memon	Badin	15	176
25	Gaji Mallah	Bhugra Memon	Badin	13	153
26	Sheikh Kirio	Bhugra Memon	Badin	36	215
27	Mohammad Mallah	Bhugra Memon	Badin	12	174
28	Chanesar Mallah	Bhugra Memon	Badin	16	156

<sup>1</sup>Source: LHDP Disaster Database

#	Name of villages	Union Council	Taluka	Households	Population
29	Natho Mallah	Bhugra Memon	Badin	14	154
30	Allahbachayo Mallah	Bhugra Memon	Badin	24	187
31	Haji Sakhi Mandhro	Bhugra Memon	Badin	76	350
32	Morio Mandhro	Bhugra Memon	Badin	21	187
33	Golo Mandhro	Bhugra Memon	Badin	103	590
34	Ibrahim Mandhro	Bhugra Memon	Badin	15	180
35	Lakhadino Rajo	Bhugra Memon	Badin	16	177
36	Missri Mallah	Bhugra Memon	Badin	24	230
37	Illyas Mallah	Bhugra Memon	Badin	14	95
38	Allahbachayo Jat	Bhugra Memon	Badin	23	199
39	Khan M. Mallah	Bhugra Memon	Badin	26	236
40	Roopa Mari	Bhugra Memon	Badin	15	93
41	Bhugra Memon	Bhugra Memon	Badin	150	935
42	Deenar Talpur	Bhugra Memon	Badin	250	1275

### Part I I: Emergency Response Structure

#### List of Control Rooms used in Emergency

S. No.	Name of Control Room	Phone No.
1.	Control Room Relief Commissioner Sindh	022 9200573
2.	Army Cantonment Badin	0297 861200-861201
3.	District Government Control Room	0297 862384
4.	Met Office Islamabad	051 9250361-4
5.	District Police Control Room	0297 861244
6.	Navy Maritime Centre Karachi (Met Office)	021 4671300-4671302
7.	Taluka Control Room Badin	0297 81245
8.	Taluka Control Room SF Rahu	0297 853053
9.	Taluka Control Room Tando Bago	0297 854037
10.	Taluka Control Room Talhar	0297 830280
11.	Taluka Control Room Matli	0297 840205

## Departmental Focal Points for Emergency Response

S. No.	Designation	Office
1.	Army Cantonment Badin	0297 861200/861201
2.	District Nazim Badin	0297 862081/862108
3.	DCO Badin	0297 861001
4.	DPO Badin	0297 861667/861324
5.	EDO Revenue	0297 861744
6.	EDO Education	0297 861183/861784
7.	EDO Works & Services	0297 862283
8.	SE Irrigation	0297 861259
9.	EDO Agriculture	0297 861623
10.	Taluka Nazim	0297 862165
11.	Taluka Nazim Talhar	0297 8730230
12.	Taluka Nazim Matli	0297 8740760
13.	Taluka Nazim Tando Bago	0297 854120
14.	Taluka Nazim FS Rahoo	0297 853018
15.	SDO HESCO Badin	0297 861972
16.	Civil Surgeon Badin	0297 8619081/862479
17.	Deputy Manager SSGC	0297 862241
18.	SDO Telephones	0297 861266/861111
19.	Fire Brigade Badin	116
20.	Emergency Police Badin	15
21.	Edhi Centre Badin	115
22.	XEN Highways Badin	0297 861410
23.	DO Roads & Transport	0297 861840
24.	DO CDD Badin	0297 861232
25.	D. Controller C. Defence	0297 861996
26.	DDO Revenue Badin	0297 861358
27.	DDO Revenue SF Rahoo	0297 853197
28.	DDO Revenue Matli	0297 8740255
29.	DDO Revenue T. Bago	0297 854037
30.	Mukhtiarkar (R) Badin	0297 861245
31.	Mukhtiarkar (R) Talhar	0297 8730280
32.	Mukhtiarkar (R) SF Rahoo	0297 853053
33.	Mukhtiarkar (R) Matli	0297 8740205
34.	Mukhtiarkar (R) T. Bago	0297 854037
35.	A. Engineer Drainage	0297 861422
36.	PMD Badin	0297 861125
37.	District Zakat Officer	0297 861322
38.	XEN Irrigation	0297 861422
39.	XEN LBOD	0297 861422
40.	Director Left Bank Canal Area Water Board	0344 3595929, 0297 861259
41.	Executive District Officer (F&P)	0297 861048

## Specialized Teams Available and Their Capacities

S. No.	Name of NGO	Specialization	Capacities	Focal Point & Contact
1	Laar Humanitarian and Development Programme (LHDP)	Humanitarian Response, Disaster (flood, cyclones, earthquake, floods, droughts & social conflicts) preparedness and management, Disaster Risk Management, Community Based Disaster Risk Management, Sustainable Livelihood	ECB and ADPC trained human resource that can be mobilized within hour	Mr. Iqbal Haider Mr. Fida Soomro
2	Badin Development & Research Organization (BDRO) Seerani Badin	Community Development	Welfare & Development	Mr. M. Khan Samoon
3	Badin Rural Development Society near Ahmed CNG Badin	Community Development	Education & Community Development	Mr. Khadim Ansari
4	Laar Development Association Golarchi Road Badin	Community Development	Welfare & Development	Mr. G. Hussain Mallah
5	Society for Science, Education and Research (SSER) Seerani Badin	Education	Education & Development	Mr. Khadim Talpur
6	Young Sheedi Welfare Organization Abid Town Badin	Social Mobilization	Community Development	Mr. Abdullah Sheedi
7	Sindh Aurat Development Association Cantt. Road Badin	Women Rights	Women Development	Dr. Najima Junejo
8	Nindo Shahar Welfare Association Nindo Shahar	Community Development	Welfare & Development	Mr. Fayyaz Abro



9	Village Development Association Village Moosa Soomro Badin	Health	Health & Mobilization	Mr. Suleman Soomro
10	Sukh Des Development Society Talhar	Community Development	Welfare & Development	Mr. Panjwani
11	Pakistan International Peace & Human Rights Organization Nindo	Human Rights & Community Development	Community Development	Mr. Ayaz Abro
12	Sindh Graduates Association (SGA) Hospital Road Badin	Community Development	Welfare & Development	Mr. Rafique Jafferi
13	Sindh Abadgar Board Golarchi	Agriculture	Agriculture	Mr. Javed
14	Family Planning Association of Pakistan Bagh Mohalla Badin	Family Planning and Health Services	Health Services	Ms. Razia Ujjan
15	National Rural Support Programme Hyderabad Road Badin	Micro Credit	Community Development	Mr. G. Rasool Soomro
17	ECO Friends Society Karachi Road Badin	Environment Degradation, Environment Risk Reduction, Environmental Perspective of Disaster Management	Skilled and experienced teams with practical knowledge of environmental issues and sustainable solution.	Mr. Shah Ali Noohani
18	Pakistan Fisher folk Forum	Mobilization, communication & fishing rights	Human resource, availability of 01 vehicle, 02 motorbikes, 02 PCs, 01 printer, fax machine and furniture	Mr. Mithan Mallah
19	Delta Development Programme Seerani Road Badin	Environment	Human resource 10	Mr. Abubaker Shaikh

## Volunteers

S. #	Department/Institute/ NGOs	No. of Trained volunteers		Area of interest
		Male	Female	
1.	Laar Humanitarian and Development Programme (LHDP)	30	20	Assessments, Humanitarian Response, Public Health Promotion & Engineering, Disaster Preparedness & Risk Management and Climatic Risk Management
2.	ECO Friends Society Badin	15	5	Assessment, Public Health Promotion, Fieldwork & Humanitarian Response
3.	Pakistan Fisher folk Forum Badin	08	03	Health, community mobilization,
4.	Young Sheedi Welfare Organization	05	05	Social Mobilization
5.	Delta Development Programme (DDP)	05	05	Environment and Ecosystem

## List of Emergency Supplies

#	Items	Quantity	Responsible
1	Fibre Glass Motor Boat (flat bottom) 19ft	10	District Government/ Administration and Taluka Municipal Administrations
2	Fibre Glass Motor Boat (flask bottom) 24ft	10	
3	Outboard Engine Yamaha 30 hp	05	
4	Outboard Engine Yamaha 40 hp	05	
5	Life saving jackets (different sizes)	50	
6	Emergency staff kits	50	
7	Family size double ply tents	10,000	
8	Boat Trolleys	10	
9	Latrine slabs	4,000	
10	Musaffa	10,000	
11	Jerry cans (20 litres)	60,000	
12	Hygiene kits	10,000	
13	Kitchen kits	10,000	
14	Dry fruit tin packs	10,000	
15	Food compound pills (children and LPW)	28,000	
16	Bladders or T-6	50	
17	Impregnated Mosquito Net	25,000	
18	Tarpaulin	25,000	
19	Animal Feed Bags and De-wormers/Seasonal vaccines	50,000	

## Contact of Emergency Suppliers

#	Item	Supplier & Address	Contact
1.	Fibre Glass Boats, OBE Yamaha, Life Saving Jackets, Staff Emergency Kits and Latrine Slabs	Marina Ship Manufacturing Company (UAE) Korangi Fish Harbour Karachi	021 2000602 021 2036755 0301 8225151
2.	Musaffa	PCSIR Ameer Khusrao Road Karachi	021 4534366 UAN: 111-222-444
3.	Tents and Tarpaulin (Korean)	Mohammad Ali Tent House Burns Road Karachi	021 2713313
4.	National Tent House	Ghayas Ud Dind-41,Block 8,Clifton, Karachi	021-5869346, 0321-4394453
5.	Imgc Global Pvt Ltd	1106-10,11th Floor, Kashif Centre, Shahrah-E-Faisal, Karachi	021-56620540
6.	Noor International	Office No 5-A Ist Floor Rose Arcade G-11 Markaz Islamabad	051-2113408 051-2104408
7.	Ali Traders	M056, Centrum Mall, Oop. Ubl Sports Complex, Main Rashid Minhad Road, Karachi, Pakistan	021-8536552, 0300-8206657
8.	Kashif Traders	Chand Bibi Road Nanak Wara WO-8/6 Kalsoom Manzil Karachi	0300-8211064
9.	Animal Feed, De-wormers & vaccines	PO Box # 4731 ICI House 5 West Wharf Karachi 74000	021 2313717-22

## Part III: Miscellaneous

## Hazard Ranking of the District

Hazard	Probability	Impact	Vulnerability		Capability	
			Existing	Future	Existing	Future
Storm Surges	High	Medium	Medium	High	Low	High
Droughts	Low	Medium	Low	High	Low	High
Cyclone	High	High	High	High	High	High
Floods	High	High	High	High	High	High
Sea intrusion	High	High	High	High	High	High
LBOD	High	High	High	High	High	High
Earthquakes	Low	Medium	Medium	Medium	Low	High

## List of Participants of Consultative Workshop on DDRMP

S. No.	Name	Designation	Contact
1.	Ghulam Mustafa Zaur	TMO Talhar	0297 830230
2.	Rajab Ali Solangi	OS TMA SF Rahoo	0332 3885795
3.	Liaquat Ali	TO Finance Talhar	0345 3725454
4.	Dr. Zainul Abidin	DO Animal Husbandry	0302 3053625
5.	Noor Mohammad Memon	DO Buildings	0333 2524582
6.	Abdullah Sheedi	G. Secretary YSWO	0332 3885283
7.	Abdullah Turk	F. Secretary SGA	0333 2525635
8.	Khadim Talpur	President SSER	0346 3921228
9.	Dr. Asadullah Memon	DO Health (Prevention)	0333 2525124
10.	Abdul Sattar Memon	G. Secretary DDP	0345 3455294
11.	Allah Dino Mallah	ADO (HG) Education	0333 2521142
12.	Nadeem Mansoor Jamali	Secretary AHD	0333 7022744
13.	Ali Mohammad Soomro	BWO	0333 2524080
14.	M. Yaseen Soomro	Acting In charge Rehnuma	0297 861306
15.	Iqbal Haider	Executive Director	0346 3752227
16.	Mohammad Khan Samoon	President BDRO	0333 2524272
17.	Abdul Sattar Bhutto	EDO Agriculture	0297 861785
18.	Mohammad Sadique Rajar	EDO Revenue	0297 861744
19.	Abdul Hameed Abro	EDO (F&P) and CDD	0344 3342654
20.	Abdul Karim	OS TMA Badin	0343 3530820
21.	Ghulam Mustafa Memon	Sub Engineer TMA Badin	0346 3861380
22.	Walidad Samoon	TMO TINA Tando Bago	0333 2547512
23.	Abdul Qadir Nuhrio	DDO Agr. Extension Badin	0297 861623
24.	M. Younis Soomro	Deputy Con. Civil Defence	0333 3976793
25.	Arshad Nawaz Chheena	Dy. Director NDMA Islamabad	051 9207066
26.	Ashfaq Hussain Umrani	DCO Badin	0300 3205492
27.	Rafique-ur-Rehman	DGM NCHD Badin	0307 3053365
28.	Shalim Kamran	Planning Expert NDMA	0302 8294005
29.	Irfan Maqbool	Training Expert	0300 9180078
30.	M. Aslam Memon	TMO Badin	0333 2078217
31.	Sawai Khan Chalgri	DO Information	0297 744150
32.	Shafi Memon	Daily the Nation	0333 2529227
33.	Gul Hingorjo	Aaj	0333 2533970
34.	Latif Zargar	Hilal Pakistan/PPF	0333 2520771
35.	Ashraf Memon	Daily Ibrat/Daily Times	0333 2545997
36.	Suleman Mandhro	Daily Sindh	0333 2523393

## District Level Damage, Needs & Assessment Form Format

Date of Report \_\_\_\_\_

District \_\_\_\_\_

**Part 1 Situation**

1.1 Type of disaster \_\_\_\_\_

1.2 Date disaster started \_\_\_\_\_

1.3 Status of disaster \_\_\_\_\_

() ongoing \_\_\_\_\_ () ended: date \_\_\_\_\_

1.4 Total number of population affected \_\_\_\_\_

1.5 Percentage of population affected versus total population in the district \_\_\_\_\_ %

1.6 Type of area affected \_\_\_\_\_

**Part 2 Effects on Population Who Suffer and in Need of Assistance**

Serial No.	Name of UCs	Total affected people		No. of deaths	Cause of deaths	Number missing	Injured/Sick	Type of sickness	No. of houses damaged			
		Family	Persons						totally	w/major	w/minor	total #
2.1												
2.2												
2.3												
Etc.												
Total												

**Part 2.1 Effects on Population Who Suffer and in Need of Assistance**

Serial No.	Name of UCs	Water sources contaminated	No. of safe areas	Families inside safe areas who need					Families outside safe areas who need			
				Shelter	Food	HH Kits	Watsan	Medicine	Food	HH Kits	Watsan	Medicine
2.1												
2.2												
2.3												
Etc.												
Total												

**Part 3 Effects to Household Property, Agriculture and Livelihood**

Serial No.	Name of UCs	Areas of crops damaged			Major livestock killed			Other types of livelihood & family properties damaged, specify				
		Totally	Partially	total	Cow/buffalo	Goat	total	boats				Total
3.1												
3.2												
3.3												
Etc.												
Total												

#### Part 4 Effects to Facilities and Infrastructure

#	Name of UCs	Hospital/health centre damaged			Schools damaged			National Road in Km	Secondary Road in Km	No. of Bridges	Culverts	Irrigation scheme
		Totally	Partially	Total	Totally	Partially	Total					
4.1												
4.2												
4.3												
Etc.												
Total												



9												
Total												

Please provide narrative answers to following questions:

1	What type of medicines do you need for disaster-hit areas? Please attach a detailed list of medicines with required quantity. How many doctors / nursing staff are required?
2	What type of clothes you are asking for the affected communities and how many bundles of essential clothes would meet the immediate requirement?
3	Please enlist food items to be put in the bag for onward distribution among affected communities.

## Needs Assessment

"	Question	<i>Medium-Term Needs for first one year</i>	
		No of Units	Description
1	How many and what type of transitional shelter required? Please provide total number of people to be accommodated (male, female, children)		
2	How many and what type of transitional shelter required for Health facilities?		
3	How many and what type of transitional shelter required for Educational facilities?		
4	What type of water supply schemes required for how many people?		
5	How many packages of medicines required as per WHO standard package?		
6	What type of skills, tools and material required for reconstruction?		
7	What type of agri-inputs for how many families are required?		

8	How much space is required for grain storage?		
9	What is the requirement of livestock shelter and medicines? Please provide details on a separate sheet		
10	What quantity of feeding blocks for animals is required?		
11	What is the requirement and estimated volume of the microfinance support?		

## Needs Assessment

"	Question	Description
1	What are long-term reconstruction needs?	
2	What are long-term rehabilitation needs?	
3	What type of disaster risk management training, education and awareness raising programmes required?	
4	What are critical policy issues need to be addressed?	
5	What type of sectoral contingency planning required during the process?	