

Disaster Risk Management Plan
District Gwadar
Government of Balochistan

November, 2008



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Foreword

It is a common saying that “tragedy teaches lessons” only when the victims assess the causes, form proper structures and plan strategies to avoid it in future or at least suffer at the minimum level. The tragedies in shape of natural and man made disasters not only play havoc with life but also expose the extent of vulnerability and inability of the respective communities / countries and their respective institutions. And if the affected country, areas or communities don't possess appropriate legislation and efficient institutions, which lead towards comprehensive disaster preparedness, response and rehabilitation initiatives, then the disaster really leaves heinous impact.

Keeping in view the frequency, intensity and magnitude of need for establishing Disaster Risk Management and response mechanisms to mitigate effects of natural and man-made disasters on human life, infrastructure, livestock, economy and health, District Gwadar was selected from the province Balochistan to have the Disaster Risk Management Plan (DRMP) as this district is prone to emergencies of different types at any time of the year.

The plan highlights the mechanism of joint efforts of different stakeholders in a collaborative and coordinated way to avoid duplication of resources and efforts and it incorporates strategies to enhance the capacity of all departments / agencies / organizations to more effectively prepare and respond to disaster risk situations. This can be achieved through the systematic processes of hazard, vulnerability and risk analysis, which facilitates in getting a more real rational base of information upon which to frame operational plans and procedures. The plan identifies the risk environment for district Gwadar and outlines the key institutional and programming components related to effective disaster risk preparedness, management, emergency response and recovery.

All the District officials and departments, civil society and community groups who extended their cooperation in this whole process are dully thanked. As to err is human and improvement is always needed therefore it is requested to all the stakeholders to communicate their suggestions and comments for the further improvements in this plan.

Khuda Bux Baloch
Director General PDMA, Balochistan.

Message by DCO Gwadar

Development of District Disaster Risk Management Plan for District Gwadar with the support of United Nations Development Programme and National Disaster Management Authority is one of the remarkable achievements of district administration Gwadar which supported it from pillar to post in the development process.

The District Disaster Risk Management Plan aims at building the capacities of communities making them able to minimize vulnerabilities at their own ends. The plan illustrates the ongoing developments in disaster management through which the government, business community and civil society together taken 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 risks.

I congratulate United Nations Development Programme (UNDP) and National Disaster Management Authority (NDMA) and its teams for development of such a substantial and valuable document. Special words of thanks for Mr. Shalim Kamran, Mr. Amjad Gulzar for their contribution to develop this plan. I am confident the guidelines in the plan will provide utmost benefit to vulnerable communities of district Gwadar.

Noor Ul Amin Mangal
District Coordination Officer,
District Gwadar

Distribution List

Copies of the plan will be disseminated to the following persons and offices:

- District Nazim
- District Naib Nazim
- District Coordination Officer
- District Police Officer
- District Assembly
- Executive District Officers
- Tehsil Municipal Authority
- Union Councils
- NDMA
- PDMA
- Army/FC/Navy/Coast Guards
- Media
- NGOs/INGOs,CBOs
- UN and Donor Agencies
- Other Relevant Organizations

Planning Authority:

The Gwadar District Disaster Risk Management Planning authority is headed by The District Nazim as he is the Chairman, while the District Coordination Officer is the Secretary, EDO Revenue, EDO Finance & Planning and three co-opted members from other stakeholders with the approval of District Nazim will constitute the planning authority.

Approval of the Plan:

Gwadar District Council is the approval authority for Gwadar District Disaster Risk Management Plan.

Amendments to the Plan:

If any amendments will be required, the planning authority will propose the amendments to the Gwadar District Disaster Risk Management Plan while District Council will have the right to approve the amendments.

Review and Updates:

The DDRMP should be reviewed on an annual basis to ensure that the risk assessment and planning assumptions remain valid and to ensure roles and responsibilities are up to date and reflect current skills and positions. The annual review and updating should also reflect the lessons learnt after each emergency response carried out by the district government, in short the DDRMP should be updated every three years whereas reviews could be done when ever required or deemed necessary.

Acknowledgments

This document has been developed through an extensive process of consultation with district stakeholders. Acknowledgment is due to the following district administration officials, departments and stakeholders who participated in the consultation process for the development of this plan.

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Mr. K/B Firaq	Manager, Gwadar Education Welfare Society
Mr. Mohammad Ramzan	Coordinator, Gwadar Education Welfare Society
Mr. Mohammad Naseebullah	Coordinator, IUCN, Gwadar

List of Acronyms

ADO	Assistant District Officer
AEO	Assistant Executive Officer
BCDA	Balochistan Coastal development Authority
C&W	Communications and Works
CCB	Citizen Community Board
CSO	Civil Society Organization
DCO	District Coordination Officer
DCR	District Census Report
DNCA	Damage, Needs and Capacity Assessment
DRR	Disaster Risk Reduction
EDO	Executive District Officer
EWA	Early Warning Systems
GDA	Gwadar Development Authority
GPA	Gwadar Port Authority
HCVA	Hazards, Vulnerability and Capacity Assessment
IUCN	International Union for Conservation of Nature
MCH	Makran Coastal Highway
MPA	Member Provincial Assembly
MSA	Maritime Security Agency
NCHD	National Commission for Human Development
NDMA	National Disaster Management Authority
NRSP	National Rural Support Program
PDMA	Provincial Disaster Management Authority
P&DD	Planning and Development Department
PHED	Public Health Engineering Department
PTCL	Pakistan Telecommunication Company Limited
PWP	Pakistan Wetlands Program
QESCO	Quetta Electric Supply Company

RCC	Reinforce Cement Concrete
RCDC	Rural Community Development Council
RHC	Rural Health Centre
SPDC	Social Policy Development Centre
SPO	Strengthening Participatory Organization
TMA	Tehsil Municipal Administration
TMO	Tehsil Municipal Officer
TNA	Training Needs Assessment
TOP	Tehsil Officer Planning
TTC	Technical Training Centre
UNDP	United Nations Development Program
VHF	Very High Frequency



1

Overview of Gwadar District

Gwadar, with a total area of 15, 216 square kms is the largest coastal district of Pakistan. Located on its south western fringe, it consists of 600 kms long coastline that covers 78% of the provincial coastline and 55% of the entire coastline of Pakistan. Fishing is the greatest resource of the district and about 70% of the population earns livelihood, directly or indirectly from this sector.

Population	232440
Area	12,216 Sq Km
Ethnic Groups	Komari/Med, Askani, Raees, Hoth
Tehsils	Jiwani
Union Councils	13
Climate	Semi-Arid with hot summer and mild winter
1998 Census	

District Bifurcation Table

District	Tehsils (4)	Union Councils (13)
Gwadar	Gwadar	Gwadar North Gwadar South Gwadar Central Surbander Pishkan
	Pasni	Pasni South Pasni North Kallag Nalient
	Jiwani	Jiwani Suntsar
	Ormara	Ormara Hud

1.1 Geography

Gwadar district has dry and hot climate and is placed in the “warm summer and mild winter” temperature zones. The oceanic influence keeps summer temperature lower and winter temperatures higher than the hinterland areas. Winter is pleasant except for the brief occasional cold spells which lasts for three months from December to February. According to climatic data recorded at Pasni, May-June are the hottest months with mean maximum temperature of around 35°C and December, January are the coldest months with mean minimum temperature of around 13°C. The climate is

arid with erratic rainfall pattern. Most rainfall occurs between December and February, when the monthly average rainfall is around 20 mm, in other nine months of the year, the highest rainfall is around 12 mm in the month of August.

1.2 Demography

The population of Gwadar district was 185,498 according to the Census report of 1998 and with average annual growth rate of 2.6% it was estimated to be 227,984 in the year 2005. The density of population in 1998 was about 12 persons per square km and in 2005 the density was estimated at nearly 15 persons per square km. Sex ratio is 51 males per 49 females which indicates larger number of men as compared to women. Basic demographic data are given in the following table.

Demographic Variables of Gwadar from 1951 to 1998

Variables	Population Census Years				
	1951	1961	1972	1981	1998
Total Population	40,630	49,660	90,820	112,385	185,498
Population Growth Rate – Gwadar	n.a	2.05%	5.31%	2.55%	2.99%
Population Growth Rate – Pakistan	n.a	2.45%	3.67%	3.06%	2.69%
Sex ratio	n.a.	n.a	n.a.	112	115
Population density	2.7	3.3	6.0	7.4	12.2
Household size	n.a	n.a.	n.a.	6.3	5.5
Rural Population	34,462	31,167	53,939	69,132	85,350
Urban Population	6,168	18,485	36,881	43,253	100,150
% of Urban Population	15.2%	37.2%	40.6%	38.5%	54%

Sources: 1998 District Census Report of Gwadar, Population Census of Pakistan, n.a. stands for not available;

1.2 a Pattern of Population Growth

Gwadar is likely to witness rapid increase in population in the near future as in-migration has already started. The pattern of population growth indicates wide variations between 1951 and 1998 censuses. The average annual growth rate of the district population remained lower than the national average except in 1972 and 1998. The rate of population growth was doubled between 1961 and 1972 but again drastically reduced between 1972 and 1981 censuses of population. These fluctuations in average annual rate of population growth are unnatural in the district that has not seen much migration in that period. Anomalies in demographic data of the district were pointed out in the Gwadar District Profile prepared by the Planning and Development Department, Government of Balochistan. The approximate figures in 2008 are over 250,000

1.2b Population Distribution

According to Census of 1998, Gwadar is the second most urbanised district of Balochistan after Quetta with 54% of the district population living in four urban localities and 46% in rural areas. Rural-urban distribution of population indicates pattern of economic activities as

agriculture and livestock are predominant economic activities in rural areas. In census of 1998 all areas with urban local government institutions (e.g. town and committees) are defined as urban areas.

Gwadar district is in the form of a strip stretched along the coastline. Rural-urban distribution of population is not meaningful in this particular district where all population in rural and urban localities along the coast is engaged in the same economic activities related to fishing. Economic activities are different in hinterland and coastal areas for which population distribution is not available from the census data. Including all the four largest urban areas (Jiwani, Gwadar, Pasni and Ormara) there are 198 villages and about 35 human settlements along the coast.

1.3 Economy

The trend of economic activities in 1998 indicates that largest proportion of workforce is employed in fishing followed by government service, construction, trade and transportation. Since 2003 there is very rapid change in the economic activities in the district. Construction has emerged as the second largest economic activity after fishing. The population of Gwadar is increasing rapidly with migration from other areas. There is boom in construction sector and in opening of new hotels and guest houses. The economy of the district and employment is changing rapidly.

Sector-wise Employment

Sector	1981	Percent	1998	Percent
Agriculture and Fishing	21,126	67.1	13,347	44.0
Community, Social & Personal Services	1,978	6.3	6,596	21.2
Construction	1,920	6.1	4,928	16.2
Wholesale, Retail, Trade, Restaurants & Hotel	1,868	5.9	2,311	7.7
Transport, Storage & Communications	1,369	4.3	2,255	7.5
Manufacturing	1,363	4.3	528	1.6
Activities Not Adequately Defined	1,568	5.0	296	1.0
Finance, Insurance, Real Estate, Business	97	0.3	122	0.4
Mining and Quarrying	128	0.4	49	0.2
Electricity, Gas & water	89	0.3	71	0.2
Total	31506	100	30503	100.0

Source: District Census Reports 1981-1998

Government decision for construction of deep sea port and incentives for investment has resulted in rapid growth in the district. Gwadar has witnessed major changes in economic activities since the past few years because of the large scale influx of people that increased demand for all necessities and services. Construction

activities have increased considerably and so has employment. The most important development was the rapid construction of Makran Coastal Highway that ended remoteness of Gwadar and reinforced the confidence of investors. Government established Gwadar Development Authority (GDA) to provide physical infrastructure and to regulate development process and urbanisation. The pace of planning of development schemes and projects in Gwadar is unparalleled as compared to any other town of Pakistan.

The most significant development is boom in the transaction of land and escalation of land prices. Planning is underway for development of physical infrastructure, road and rail networks for linking Gwadar to other parts of the country and to Afghanistan and Central Asia. The chronic problem of unreliable and irregular power supply was resolved for the current needs with the purchase of electricity from Iran in 2003.

Primary health care and preventive health measures are inadequate in the district. Construction of a new 50 bed hospital in Gwadar was inaugurated in 2005. Ground water is saline in most areas of the district and alternative strategies for water supply are under consideration. Because of these developments security environment was enhanced with the presence of civilian armed forces. Travelling from sea ports and fishing crafts movement from the fish harbours was regulated.

1.4 Shelter

Total number of housing units as well as total number of households was 29538 NCHD, according to 1998 projection 38740 households. House ownership statistics indicates that 91% of the houses in urban areas and 100% of the houses in rural areas are owner occupied. The housing statistics indicates that about 81% of the houses consisted of only one room, 13% have two rooms and only 6% of the houses have more than two rooms. The household size statistics indicates that 10% of the household consist of more than 10 persons and 55% of the households have more than 6 members.

In Gwadar town and to some extent in other large settlements of the district mostly new houses are constructed with cement blocks and roofs are constructed with RCC or iron girder and concrete slabs or baked bricks and tiles. Other houses are made of mud and adobe with thatched roofs made of wood and mats. In the district, outer wall of 19% of rooms was made of blocks or baked bricks while roof of only 4% of the houses was made of RCC, cement or iron sheets. In urban areas, 29% of the housing units have walls made of cement blocks and bricks while roof of 6% of houses was made of RCC, cement or iron sheets. In some smaller villages of the hinterland areas, houses consist of a small hut made of wood and dwarf palm leaves (pesh) without any courtyard and boundary wall. Clusters of huts of close kin relations are located closer to one another. This type of housing also indicates extreme poverty in such areas. Total number of this type of houses is not available from census or other records.

Gwadar is unique a district without any regulatory controls on buildings except those under GDA. Building control ordinance should be extended to Gwadar district to regulate housing structures and design. Every house consists of sump wells for sewerage collection and some houses also build these sumps outside their houses. These wells are covered with concrete slabs. (These are dangerous in many respects particularly due to emission of poisonous gases from them. The prevalence of acute respiratory infections could be attributed to these sump wells located in every house).

1.5 Society

All population of the district excluding migrants from other areas belong to Baloch ethnic group. Most local people in the district would identify themselves as Baloch largely ignoring their tribal identity. An unspecified proportion of the population belongs to Darzadah group that represents a different racial stock and in the past it comprised the service class. Socioeconomic changes in Makran, particularly the Baloch nationalist movement since 1960's and the relative economic prosperity due to increased employment in the Persian Gulf States have reduced this social distinction. Although in rural areas, a vast majority of the Darzadah people do not own any land.

1.5a Language and Ethnicity

Balochi is the main language spoken in the district and the dialect has more Persian words than other dialects of the language due to close proximity and frequent interaction with Iranian Balochistan. About 98% of the people speak Balochi language while speakers of other languages are about 2%. Urdu is the lingua franca in urban areas and a vast majority of the men in rural areas can also communicate in Urdu. Urdu is also the language of instructions in schools and college.

1.5b Religious Composition

Almost all population of the district adhere to Islam and only 0.7% of the population belong to other religions. Hindus including scheduled caste were 0.39% of the population. Christians, Ahmadis and other religions minorities form only 0.31% of the population. (Source)

1.6 Political and Administrative system

The district is divided into four tehsils and one sub tehsil. The four tehsils are (i) Jiwani, (ii) Gwadar, (iii) Pasni and (iv) Ormara. Under the new system of local government, Gwadar district is divided into 13 Union Councils. There are four tehsil councils and Tehsil Municipal Administrations in the district.

The entire district has one constituency for the Balochistan Provincial Assembly PB 51. The National Assembly constituency of the district is shared with Kech district. The NA 272 Kech-cum-Gwadar is one constituency comprising the entire district Kech and district Gwadar.

The District Government is presided over by the District Coordination Officer (DCO) and an indirectly elected district Nazim. District administration is headed by the DCO and comprises of Executive District Officers each responsible for group of devolved offices. Each group comprises of a few related offices and each group is headed by an Executive District Officer (EDO) while each of the line departments is headed by the District Officer. In Balochistan, district offices were grouped as following.

- i. Planning & Finance (District Coordination): Information technology, coordination, human resource management, environment, finance and budget, planning and development and civil defence, enterprise and investment promotion.
- ii. Agriculture: Agriculture (Extension), On Farm Water Management, Soil Fertility, Fisheries.
- iii. Community Development: Community organisation, registration of voluntary organisations, social welfare, sports and culture, special education, labour and cooperatives.
- iv. Education/ Literacy: Boys Schools, Girls Schools, Technical Education, Colleges, sports (education), Literacy campaigns, Continuing Education, and Vocational Education.
- v. Health: Public Health, Basic & Rural Health, Child & Woman Health, District and Tehsil hospitals and Population Welfare.
- vi. Revenue: Land Revenue & Estate.
- vii. Excise: Excise and Taxation, and Transport (Headed by ETO).
- viii. Communication and Works: Housing & Urban Development, Rural Development, District roads and buildings & Energy.
- ix. Public Health and Engineering: Water Supply and Sanitation.
- x. Livestock: Livestock, poultry farming and veterinary hospitals.
- xi. Forest Department: plantation, awareness of plantation, protection and conservation of soil, forests and wild life.
- xii. WAPDA is responsible for provision of energy.





Disaster Risks in the District

2

Gwadar district is vulnerable to a number of natural disasters including cyclones, floods, heavy rains, earthquake and droughts. A chronology of disasters over the last five decades reveals that the district has remained in the grip of an uninterrupted cycle of disasters in one form or the other. Earthquakes, cyclones, heavy rainfalls, floods and even droughts follow each other with short intervals.

Seismic events have not only shaped the history of the district but also of the whole province and have had profound effects on the people and property. They are recurring events, given that Balochistan lies on several active faults. A risk assessment is therefore necessary to be undertaken as an input to development planning and emergency preparedness measures. This would include coastal areas, where major port development is anticipated and in areas where major water control schemes are planned.

According to the Balochistan Conservation Strategy document the sea is very much a mixed blessing for Gwadar District. It provides a major source of livelihood, but it can be a destructive force also. The monsoons are a major phenomena that have shaped the coastline of the district/region. The north-east monsoon, in winter, blows at about 10 knots. From mid-May to mid-September, the south-west monsoon blows at about 30 knots. During this period the coast is subject to wave attack, with waves reaching heights of 3.5 meters. Spring tides reach a height of over 3 meters, and backed by strong winds, raise the sea level further, producing occasional storm surges that penetrate sheltered lagoons.

There is a continual process of erosion and accretion. Erosion is particularly prominent in Gwadar district at Gwadar & Pasni. In summer, easterly long-shore currents redeposit eroded materials along the coast. To further complicate the picture, the sea level is rising slowly due to global warming, at rates of about 1.1 millimeters a year. This may contribute to the salination problems that characterize the ground water supply, and affect further development planning on the coast. Rough seas during the south-west monsoon restrict fishing to all but the largest boats and major harbors, such as Pasni and Gwadar.

The coast is also susceptible to earth quakes and tsunamis. The coast sits on a major Subduction zone. In 1945, an earth quake with a magnitude of 7.8 on the Richter scale and associated tsunamis damaged infrastructure and took away more than 4000 lives at Pasni. The Makran coast is one of the most seismically active regions in Pakistan. Seismic records for the period 1851 1990 show that there have been 193 earthquakes of magnitude 4.0 and above. Although it is impossible to predict the likelihood of further earthquakes, experts conclude from an analysis of available data that there is a real possibility of a major earth quake in the next few decades.

The sea also brings pollution. Shipping lanes in the Arabian Sea are considered to be among the busiest in the world. All vessels visiting the oil-rich Persian Gulf pass through the area. It is estimated that approximately 11,000 ships, totaling 12,000 million dead-weight tonnage, cross the Arabian Sea annually. There are about 2,500 oil tankers carrying 33 million tonnes of oil. The patterns of surface winds and currents expose the coast to the threat of oil pollution. A spill occurred in June 1998 from the R. V. Yashica. The leaking vessel, carrying 1,500 tonnes of furnace oil, was abandoned approximately 112 kilometers south of Pasni. Fortunately, the oil dispersed naturally, but under the influence of wind, waves and currents, a large slick of crude oil could have ended up on the coast of Gwadar District.

Oil pollution already appears to be of some concern along the Gwadar coast. Sources of oil pollution include fishing boats and the large number of merchant vessels and oil tankers that clean bilge and tanks as they pass through the waters of Pakistan. As a consequence, tar balls (residues of weathered oil) are found on beaches. There is little in the way of sewage disposal in human settlements and industrial areas. Wastes from coastal villages and industrial estates eventually reach the sea to be redistributed by long - shore currents. The same climatic and oceanographic phenomena that create problems on the coast also result in a highly productive marine environment. Submarine topography, orientation of the coast and strong southwestern monsoon winds combine to promote upwelling that result in this coastal zone being one of the most productive in the world. In terms of world oceans, the Arabian Sea has an average primary productivity that is 10 times the world ocean average and four times the average value of the Indian Ocean. It translates into a theoretical equivalent fish biomass of 9.4 million tonnes. But the productivity of the Arabian Sea is not evenly distributed and zones of high productivity vary both temporally and spatially.

Drought is also a recurrent feature in most parts of Gwadar District, and in case of crop failure, live stock provides the security of food and hard cash. In rural communities, the number of animals a person owns confers status. This leads to the maintenance of larger herds of poor- quality animals. Grazing pressure increases, causing degradation of rangelands. The major consequence of managing rangelands ineffectively is the depletion of a vital primary resource base for rural communities. This has far-reaching social and environmental implications. One of the major environmental consequences of land degradation is accelerated decertification. This term is defined as degradation caused by human activities. It involves a substantial decrease in plant cover and accelerated soil erosion. The available data and consultations with the civil society of Gwadar district indicate that the hazards and scenarios mentioned in the following table are most likely to affect the inhabitants of Gwadar district and would require a professional response from the Government. The table explains the disaster priorities and vulnerable areas:

Disaster Priorities	Disaster Type	Vulnerable Tehsils
High Priority	Flash Floods Heavy Rains Cyclone Earthquake/Tsunami	Jiwani - (Flash floods, Heavy rains, Earthquake) Pasni - (Flash floods, Heavy rains, Cyclone, Earthquake) Gwadar - (Heavy rains, Cyclone, Earthquake) Ormara - (Cyclone, Heavy Rains)
Medium Priority	Drought Epidemics	Jiwani - (Drought) Pasni - (Drought) Ormara - (Drought) Epidemics can break out in any Tehsil
Low Priority	Fire Incidents Road Accidents Riots Oil spills Pollution	Pasni - (Riots, Oil spill) Gwadar - (Riots, Oil spill) Fire Incidents, road accidents and Pollution are hazards for all Tehsils

Source of above information is reports of RCDC, PWP and IUCN

2.1 Tehsil Jewani,

Union council Jewani and uc Sunstar which make up the tehsil Jewani and are often under threats from floods as river Dasht and many small rain drains (Barsati nallahs) are often breached and overflowed which cause flooding in near by villages and affect the villagers.

There are dozens of villages on both side of the river Dasht which constitute the uc Sunstar where there is a long history of floods , the most famous flood was recorded two hundred years ago which is known as Shadri's flood, which was named after a lady called Shadri who was taken away by the flood waters. In recent years the most famous flood is of 1998 which devastated a large area of UC Sunstar as many villages were badly affected by this flood, in 2005 and 2007 the flooding of river Dasht played havoc in this UC. Heavy rains and cyclone caused heavy losses in UC Jiwani, as it is situated on the coastline the wind pressure is immense but during cyclonic conditions the wind pressure increases tremendously. Several earth quakes have shaken tehsil Jiwani but they were all of low intensity and have never caused heavy losses.

2.2 Tehsil Pasni

The rural and urban areas of tehsil Pasni are often affected by flash floods which are the result of overflows in Shadi Kaur catchments area and other mountainous water courses. In the years 1998, 2005 and 2007 tehsil Pasni faced serious threats from the flood water of Sahdi Kaur area, but fortunately the flood waters were diverted towards the sea and did not have adverse affects on the near by villages.

In rural areas of tehsil Pasni which include Nalaint, Kulanch, Sardasht and Kalmat the over flows in drainage channels prove to be a dangerous threat, in 2007 a drainage channel got flooded and took along five minor girls. As there are many small dams in the area, the heavy rains cause these dams to break, if a dam which is situated on higher ground breaks it triggers a chain reaction among several other dams which are in slope and they also burst open and cause flashfloods and wide spread disaster occurs.

Pasni is also one of the recipients of earthquake shocks. The most dangerous earthquake recorded in this area was that of 1945 which caused tsunamis as well. As Pasni is on the coast line, cyclones pose a great threat especially in summer seasons which damage boats, houses and even precious human lives are also lost. Cyclone Gonu of the year 2007 caused heavy damage in Pasni and surrounding areas especially in Kalmat. Drought is also a major disaster for this area of Gwadar district. In 1998 drought caused hundreds of families of Kulanch, Sardasht and Nalaint to migrate to Pasni and Gwadar. In the past, people of this area had migrated to as far as Karachi due to Drought conditions.

Epidemics have not caused any issues in this area, however, there is a severe lack of medical facilities due to which there is always a great threat of uncontrollable epidemic situations, Hepatitis has increased and people don't even get basic medical attention and there is also a need of conducting an assessment for the prevalence of these kinds of diseases. Sea erosion and sand dunes are important issues for tehsil Pasni and the city area needs to be protected from fast increasing sand dunes and on the other hand due to the construction of the Pasni Harbor there are severe issues from sea erosion. Sea erosion increases during cyclonic conditions. It also badly effects Sur-Bundar area every year recently 15% of the local population was seriously effected.

2.3 Tehsil Gwadar:

Cyclones are the biggest threat to tehsil Gwadar, and there is a lack of proper preparedness measures to avoid huge damages and losses. Strong winds and heavy rains cause a lot of damage including short circuits of electricity. A lot of population which is present on the sea shore is the most vulnerable. The eastern coast has increased hundreds of feet towards Gwadar. A protection wall was constructed which has caused a lot of other problems for the local fishermen community. Due to the presence of the protection wall the fishermen are not able to park their boats near their residential areas, when ever the tide is high and the wind pressure increases their oats are damaged as they hit the protection wall.

Low intensity earthquake shocks have also been recorded in this area, several shocks were felt during the end of 2007 which caused a wave of panic in the local community. Ankara dam is the only source of fresh water for the people of Gwadar, Surbander, Pishukan, and Nigwar, the water is replenished by rains and due to very low rains in the past years people of these areas had to face acute water shortage.

2.4 Tehsil Ormara

Cyclones pose the biggest threat to Ormara Tehsil. Almost every year floods and cyclonic waves destroy property in this tehsil, the recent cyclone Gonu damaged about 70% of the rooms and boundary walls of villages of the area. The tehsil requires a lot of attention and that also on priority basis for disaster risk management.

2.5 Past Disasters history of Gwadar District:

a. 1945 Earthquake and Tsunami

November 1945, a great earthquake off Pakistan's Makran Coast (Balochistan) generated a destructive Tsunami in the northern Arabian sea and the Indian Ocean, the earthquake occurred at 21:56 (03:26 IST), its epicentre was at 24.5 N 63.0E, in the northern Arabian Sea, About 100 km south of Karachi. The Richter scale magnitude of this earth quake was 7.8. The Earthquake intensity was high through out the region. It was strongly felt in Tehsil Pasni of Gwadar District and the impact was so devastating that there were reports that southern and western sections of Karachi felt strong surface motions for over 30 seconds. According to eye witness reports people were thrown out of their beds, doors and windows rattled and windowpanes broke. The light at Cape Moza-45 miles form Karachi was damaged, the Manora light house in Karachi was also damaged. More then 4000 people lost their lives along the Makran Coast due to the earthquake and Tsunami in that unfortunate year

b. 1998 Floods

Over 30,000 people were stranded and 5,000 houses washed away with the onslaught of flash floods in Suntsar Union Council of Tehsil Jiwani of District Gwadar, the people stuck up in flood-hit areas had been cut off from the rest of the district as road links had been severed, and they were waiting to be airlifted through helicopters.

Twenty-seven villages were completely destroyed while 12 suffered partial damages in the floods. However, no loss of life was reported from any of the affected villages of Gwadar district.

According to official reports the people of affected villages had shifted to hilltops and other safer places before the onslaught of flash floods which struck the area after playing havoc in the neighbouring Kech district. The concern departments, Civil Society and NGOs played the most active role in shifting people to safe places and provided basics necessities.

c. Floods in 2005

Torrential rains in the first week of February 2005 resulted in flash floods in districts of Turbat and Gwadar. Some 30 persons were reported dead while many reported missing and/or injured. Incident of breaking of Shadikaur dam in Pasni Tehsil of Gwadar district also aggravated the situation. Government quickly responded to the situation and a relief operation was carried out where Army and Navy along with district government and civil society was involved in lifting the stranded people to safe places, providing food, tents, blankets and medical services to the affectees.

The 2005 flood had most of its impact in three tehsils i.e. Dasht, Ormara and Pasni of Gawadar district causing damage to houses, dam, standing crops, orchards, livestock and water supply schemes affecting an approximate population of 15,307 in 40 villages. A minimum of 12-15 houses in each village

are completely destroyed while several other were partially damaged. The torrential rains and flood also severely damaged the road network. 250 Km of the Karachi-Gwadar Coastal Highway was swept away in the floodwater while access via road to affected villages was also not possible. Aerial route was the only way to reach most of the worst hit villages. According to the district Nazim, no casualty had been reported in District Gwadar, however only four people were reported to be missing.

According to local government reports, Suntsar area of the Dasht tehsil was the worst affected where 29 villages came under water as the banks of Dasht River overflowed. Shey Gwash village was completely raised to ground and population had to be shifted to Kalatoo area. According to the information provided by Local Government 2,250 households (approximately) had been affected in Dasht area only. Majority of the people were dependant on livestock and agriculture for their livelihood. Most of the livestock perished as the result of floods while 100% of crops were damaged or completely destroyed. In Pasni tehsil the most affected area was not accessible. According to the information provided by the local government officials, 7 villages got cut off from the rest of the area where approximately 275 households got affected.

d. Cyclones in 2007

Gwadar district was very unfortunate during the year 2007 as it experienced two cyclones within a month's period, These cyclones were called as Cyclone Gonu which occurred during June 5-7 and cyclone Yemyin, June 24-27. The cyclones caused heavy devastation to the district, the rainfall hindered rescue and relief operation launched by the Army and the Frontier Corps. The Pakistan Army had deputed 10 helicopters to evacuate people from different areas. According to the Government of Balochistan, approximately 400,000 people had been affected due to cyclone and flash floods in the whole province. Telecommunication links were completely cut off and only a few mobile networks were functioning. There was no traffic on any of the major highways, including the inter-provincial highways and roads because most of the bridges, causeways and culverts have been washed away.

The provincial government with the help of Pakistan Army started the relief operation. The focus of the operation was to rescue people. Four C-130 military transport planes rushed relief goods, including food to Turbat and Gwadar while ten helicopters were used for rescue work. The Pakistan Army helicopters rescued more than 45,000 people from the Turbat & Gwadar region. More than 1,000 people were rescued from the coastal area. Because of suspension of gas supply there was a severe shortage of food as most of the hotels, restaurants and bakers suspended their work while households had to switch over to LPG. The district government and civil society also played a significant role in the relief and rehabilitation of the affected communities.

2.6 Dynamic Pressures

The history of the province reveals that Makran coast is one of the most seismically active regions in Pakistan, susceptible to earthquakes and tsunamis. The mean level of sea is rising at the rate of 1.1 millimetres annually because of global warming. Hurricanes, sandstorms, shifting of sand dunes are problem in most areas of the district. Lack of sanitation, sewerage and solid waste disposal has compounded the problems. The immigration/influx has created a sense of insecurity amongst local people as they believe these new people will take over opportunities in case of resources, jobs etc. which may lead to a social unrest.

Livelihoods, particularly of the fishing community is being threatened due to over-fishing by trawlers from Karachi coastal areas, which has left behind traces of sea pollution as well. Due to the construction of the coastal highway, the traffic has increased immensely causing an increase in traffic accidents. Newspapers reports have constantly been indicating that the curves of the highway could have been straightened but the delay in doing so

has increased the frequency of road accidents. The much talked about Highway comes between the natural watercourses and is always damaged when flashfloods occur.

Potable water is now becoming a problem which can cause unrest in future as population is increasing and the only source is rainwater and the rain cycle is not of a consistent pattern. Pasni is in deep water crises and water tankers are bought regularly from Shadikaur dam area. (The Dam was completely washed away in 2005 flashfloods), Immediate efforts are required to restore water supply to Pasni otherwise it will aggravate the situation of the district in general.

2.7 District Capacities for Disaster Risk Management

Unfortunately, a reactive emergency response approach has remained the predominant way of dealing with disasters in Pakistan and District Gwadar is no exception. Awareness of district, tehsil union council and village leaders as well as media, civil society and communities about DRM has remained a very low priority. Due to weak coordination and lack of resources, equipment and skill for restoration of damaged roads and bridges it took almost seven to ten days to restore the Makran coastal high way due to which relief efforts were badly affected during the recent cyclones and floods disaster in the year 2007.

After the promulgation of the National Disaster Management Ordinance, 2006 (NDMO), all the districts of Pakistan are required to establish District Disaster Management Authorities (DDMAs) to have functional and effective system of DRM on long-term basis.

The table below describes disaster risk management in the district:

District Capacities, existing gaps and Requirements for Effective DDMA

Current Status	Requirement of effective DDMX
DDMA not yet established, disaster management focal person not appointed.	DDMA needs to be established immediately with clear roles and responsibilities, disaster management focal person to be appointed who should be able to formulate district disaster risk management plan based upon local risk assessment and coordinate its implementation and procedures.
Civil defence office not existing	Fully organised and trained Civil Defence is very essential for the DDMA to carry out its operations
Contingency plan for Gwadar District available but it covers only earthquake scenario	Development of District Disaster Risk Management Plan which covers all aspects of Disaster Risk management for the whole District
Low level of Coordination during emergency response.	Clear mention of response activities for each department and other stakeholders need to be made along with standard operating procedures
Weak linkages and coordination with research institutes and universities, etc.	Capacity to conduct education, training and public awareness programs for local officials, stakeholders and communities on disaster preparedness and mitigation. Ability to continuously monitor risks, hazards and vulnerable locations/conditions within the district, tehsils, union councils and villages
Lack of effective operational guidelines for disaster risk management	Capacity to prepare guidelines and standards for district government and local stakeholders on disaster risk management
Inadequately equipped District Control Room	Establish a fully equipped and staffed district emergency operations centre (DEOC) capable of coordinating emergency response in the district
Heavy reliance on emergency response	Undertake appropriate preparedness measures at district level, e.g. maintain early warning systems, identification of buildings to be used as shelters, logistics, and to have strong emergency communications
Lack of human and material/financial resources for emergency measures	Resource-gap to be filled appropriately.



3

Structure for Disaster Risk Management

Experience has shown that mitigation and preparedness plan should be area specific. This considers the nature and type of vulnerabilities which will determine, to a great extent, the risk reduction strategies. Given the principles of disaster management, the strategies are oriented primarily to the social and impoverished communities and families as against the vulnerability of the overall system.

In view of the risk and the vulnerabilities identified in the earlier section, the disaster risk reduction measures proposed are presented using the hazards as the point of reference. These are Cyclones, Earthquake, Tsunamis, Heavy rains and Floods. The events of accidents, domestic fires and annual health epidemics are not tackled as the views of the concerned officials show that these are localized and controllable emergencies and not disasters. Prevention measures to ensure that these do not develop into disasters will be the responsibility of the District Disaster Management Authority Gwadar.

Based on these, the requirements for the line departments will have to be identified keeping in view their future growth requirements as well as specific demands put on them as a result of disaster management plan exercise. It is expected that special procurements and inputs will enhance the capabilities and the quality of service and rationalize efficient contributions of the limited manpower resources available with these agencies. The risk reduction strategy also envisages the possibilities of upgrading the quality of human resources, through training, in the long run.

3.1 Institutional Mechanism for District Disaster Management Authority

3.1a District Disaster Management Authority (DDMA) Gwadar

Gwadar district has the combination of both rural and upcoming urban areas. The establishment of the District Disaster Management Authority (DDMA) Gwadar is the keystone of the proposed disaster risk reduction strategy. All activities aimed at hazard impact reduction and decreasing the vulnerability of at-risk population, private and public assets and the environment, require the presence and participation of the DDMA.

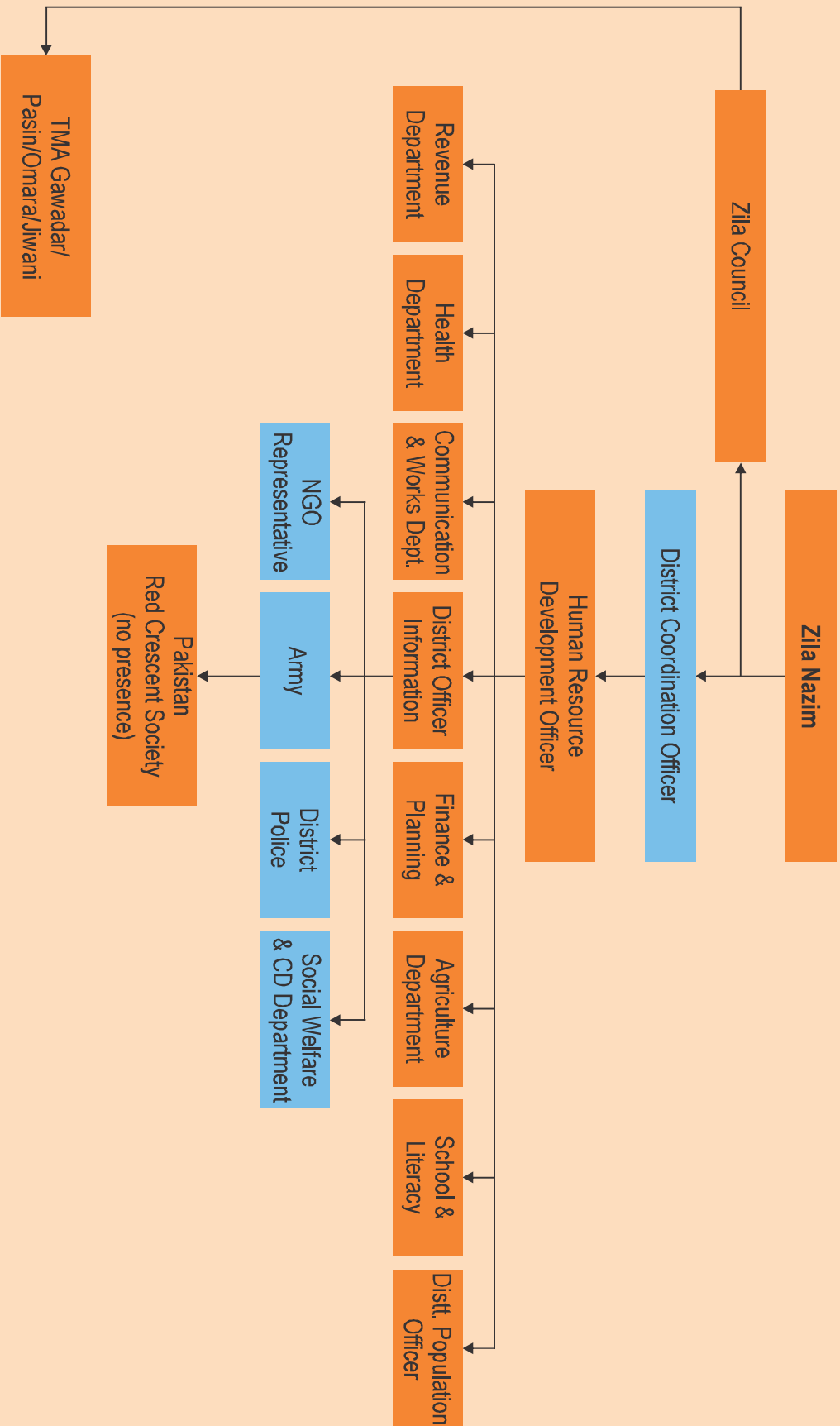
The coordination of efforts of all district departments, the non-governmental organizations and civil society is a major concern of the DDMA Gwadar. The present sectoral coordination arrangements will be strengthened by the multi-sectoral coordination that will be handled by the DDMA. These meetings will afford all the stakeholders the opportunity to have a bird's eye view of all the efforts being undertaken to make Gwadar District a safer place. The systems to be set-up by the DDMA Gwadar will be backed up by appropriate equipments and trained staff.

The DDMA is a coordinating mechanism for all government agencies and non-governmental organizations operating in a district and have functions which are important for disaster risk reduction as well as disaster response.

The DDMA will be composed of the following:

District Nazim	District Disaster Management Authority Head
District Coordination Officer (DCO)	Secretary, DDMA Secretariat
Revenue Department	Member
Civil Defense (non existence at present)	Member
Civil Society Representative in the District	Member/s
Designated Local Representative of the Armed Forces	Member/s
Education Department	Member
Fire Service (non existence at present)	Member
Gwadar Port Authority	Member
Health Department	Member
Agriculture Department	Member
Livestock Department	Member
Local Government	Member
DG, Gwadar Development Authority	Member/s
NGO Representatives in the District	Member/s
Pakistan Red Crescent (no presence)	Member
District Police Officer (DPO)	Member
C&W Department	Member
Others	as per requirement of DDMA

(This is a proposed list, DDMA can finalize the members it self)



3.1b The Office of District Disaster Management Authority Gwadar

The District Nazim will be the head of District Disaster Management Authority. In running the day-to-day operations of DDMA, a Secretariat would assist the District Nazim. The make-up of the office of the DDMA will depend on the set-up of the Provincial Disaster Management Authority because of the integrated and interdependent nature of these organizational units and also in consideration of economies of scale.

3.1c The Secretariat of the DDMA

In running the day-to-day operations of the DDMA, a Secretariat would assist the District Nazim. In district Gwadar the Revenue department under the DCO will be delegated to perform the tasks of the secretariat for the DDMA. (Ideally the Civil defense office should have been given this responsibility but unfortunately it does not exist in Gwadar District)

The secretariat will be led by the District Coordination Officer (DCO) who will be the Secretary of the Secretariat; a District Disaster Officer will perform as the Executive Officer and a minimum of three staff members who will be in-charge three tasks namely: Technical Support (training and education), Operations and Admin & Finance. The number of staff, procedures and terms of references of the secretariat will be further developed by the DDMA

3.2 Functions of the DDMA

Based on Ordinance No. XI of 2006, titled National Disaster Management Ordinance, 2006, the District Disaster Management Authority has the following functions to perform:

- Formulate district disaster risk management plan, based upon a hazard and vulnerability analysis of the district.
- Coordinate and monitor the implementation of district plan in accordance with the Provincial Disaster Risk Management plan.
- Continuously monitor the hazards, risks, and disaster threats and the conditions of vulnerable population within the district.
- Prepare guidelines for mitigation, preparedness, and response as well as for vulnerability reduction.
- Identify training needs and conduct education, training and public awareness programs.
- Conduct training in disaster risk reduction and relief administration for local government officials, public and civil society representatives and at-risk communities.
- Set-up, maintains, 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.
- Mobilize and coordinate all interventions from other agencies at the time of emergencies.
- Mobilize needed financial and material resources for disaster risk management.
- Implement disaster risk reduction and response activities as decided in the district disaster risk management plan.
- Review development plans of government departments at the district/municipal level and provide guidance on mainstreaming disaster risk reduction measures in these plans.
- Identify buildings and places in the district/municipality that could be used as evacuation sites or relief centers 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.

- Encourage the involvement of non-government and community groups in disaster risk reduction and preparedness.
- Identify alternative means for emergency communications should the regular channels be disrupted.
- In the event of a disaster, the DDMA will take operational control, by activating the Emergency Operation Centre, of the situation to ensure that support is delivered promptly to the affected communities.
- Keep close coordination with the Provincial Disaster Management Authority and the National Disaster Management Authority.

3.3 Disaster Risk Management at Tehsil, Union Council and Village Level

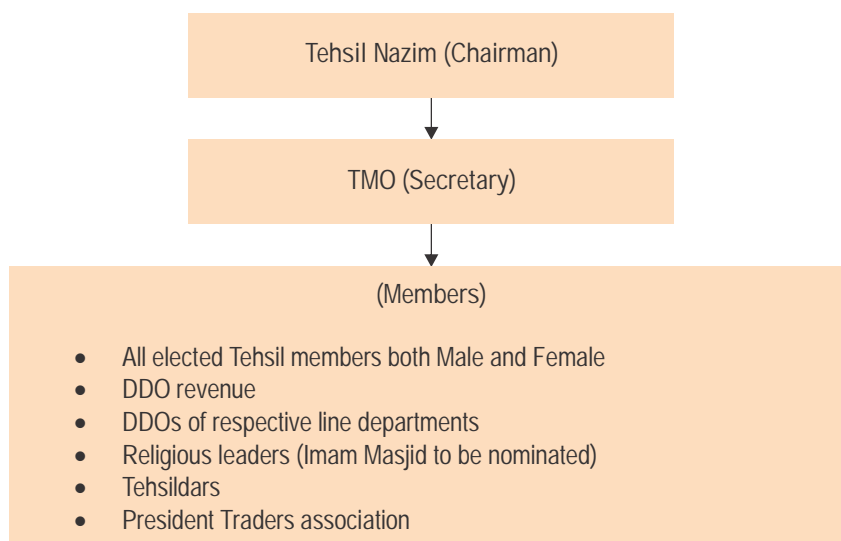
The national DRM framework clearly lowers ties of government as frontline of DRM “where disaster activities are actually implemented”. For many line departments, the lower level of administration is where they interface directly with communities. Tehsils, union councils and villages are responsible for:

- Prepare plans and procedures for disaster risk management in their respective locations
- Take operational control in the vent of a disaster or emergency so as to ensure that support is provided to the affected households and individuals
- Mobilize needed finance and material resources for disaster management
- Identify and map out all hazards in respective locations and conduct risk and vulnerability analysis.
- Establish civic groups for disaster reduction and relief operations

3.3 a Tehsil Disaster Management Committee

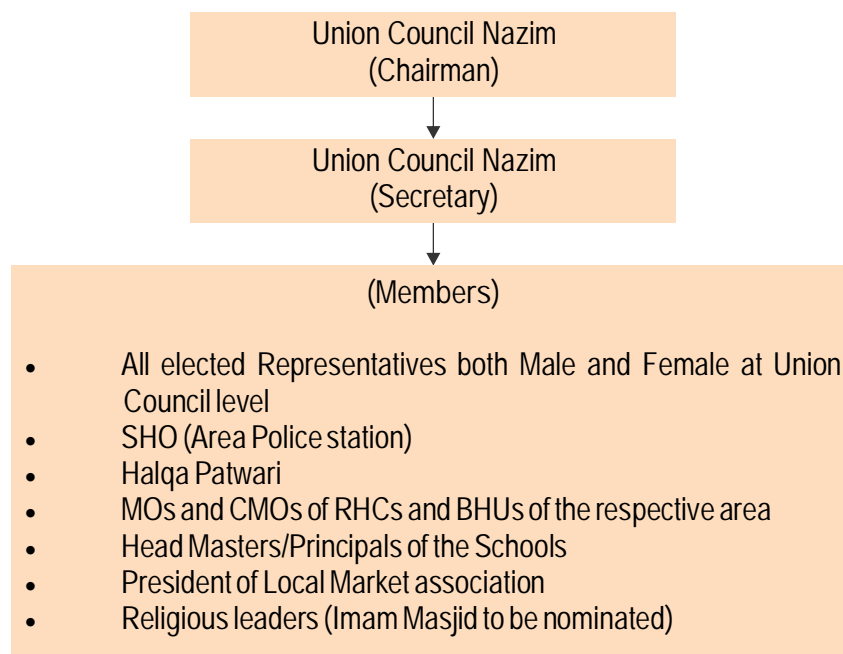
A tehsil disaster committee (TDMC) shall be framed to coordinate and implement disaster risk management activities at tehsil level. The tehsil Nazim shall be the chairperson of the TDMC and the tehsil Municipal Officer shall be the secretary. Members will include all elected members of the tehsil, DDO revenue, presidents of traders association, tehsildars, DDOs of respective line departments and religious leaders who are to be nominated.

Specific roles and responsibilities of the TDMC and members will be further outlined by the district authority.



3.3 b Union Council Disaster Management Committee

At union council level, a union council disaster management committee (UDMC) will be Established to coordinate and implement disaster risk management activities. The union council Nazim shall be the chairperson of the UDMC and the UC secretary shall be the UDMC secretary. Members will include all elected members of the UC, SHO of the respective area, Halqa Patwari, Mos and CMOs of RHCs and BHUs, Headmaster/principals of schools, president of local market association and religious leaders who are to be nominated. Specific roles and responsibilities of the UDMC and members will be further outlined by the district authority.



3.3 c Community Based Organizations & Institutions

In order to promote community level disaster risk management activities, the capacity of existing community organizations will be developed and enhanced by district and tehsil authorities. In the absence of community organizations, new groups would be established to work on disaster risk management. CBOs will be trained about local early warning systems, evacuation, first aid search and rescue, fire fighting etc. linkage would be developed between CBOs and relevant local agencies, e.g. agriculture, banks, health and veterinary services to promote disaster preparedness. Skills and knowledge of CBO leadership will also be developed in financial management, people management, resource mobilization, interpersonal communication and presentation and negotiation skills. The provision of citizen community boards (CCBs) in local government ordinance (LGO 2001) provides a good opportunity to organize communities and mobilize resources for local level disasters risk management.

Other organizations and institutions present in communities such as religious leaders and groups farmers associations, parents and teacher associations, etc. shall likewise be drawn, enhanced and coordinated to support DRM.

3.4 Reporting Formats

The need for common reporting formats to be used by both government and non-government agencies during

disaster will facilitate understanding of messages, data and information. This will avoid both embarrassments and mistakes in the emergency work to save lives and properties. Examples of reporting formats are in the Annexure section of this plan.

The DEOC will send the Status and Action taken Report on a continuous basis to the State DMA. The DEOC will provide updates of the situation and include advisories for the State DMA to guide it in its decision-making responsibilities. For the purpose of this plan, definitions of disaster risk management terms are explained in Annex 7 of this document



Priority Strategies for Disaster Risk Management

4

4.1. Priority Areas for Disaster Risk Reduction and Response in Gwadar

The National Disaster Risk Management Framework of Pakistan has set six (6) priority areas to promote disaster reduction and develop capacities at all levels of government. The priority areas provide broad descriptions of key strategies to achieve the overall goal of reducing disaster risk and vulnerability. The District Disaster Risk Management Plan (DDRMP) of Gwadar district refers to the National Framework and has adopted a set of these component objectives to support the national government's plans and to enhance its own capacities in the district. These have been further detailed into concrete activities and work plans to build disaster risk management capacities in the district.

4.1.1. PRIORITY AREAS

1: Institutional and Legal Arrangement

a. Key Issues

The National Disaster Management Ordinance of 2006 provides for the creation of Disaster Management Authorities at National, Provincial and District levels to develop and implement effective disaster risk management strategies. The District Disaster Management Authority of Gwadar district is yet to be formally established. The immediate establishment of the DDMA, with clear delineation of roles, functions and tasks before, during and after disasters is essential to develop and implement effective disaster risk management strategies in the district. The roles and functions of local government from the tehsil, union council, village council and citizen community boards will also have to be further clarified. Appropriate contingency plans and standard operating procedures should be developed to facilitate effective working and coordination within the DDMA and with other stakeholders. Constituting the DDMA would also include acquiring staff and / or identifying key personnel in charge of DRM as well as support staff. The DDMA will have to spend time and appropriate funds and resources to develop guidelines, standards and procedures.

b. Lead Agency

The District Nazim, District Coordination Officer and the Planning Department will take the lead in this priority area. In developing these systems and procedures, consultations

should be done with relevant agencies, organizations, local government and communities to inform development and to ensure ownership of the plan.

The Planning Department is the agency that will support the district authorities to define appropriate planning and coordination methodology, identify the sources and amount of information and resources required and ensure that all responses before, during and after a disaster are well coordinated and duplication is avoided. The planning Department is to support the DDMA in making sure pre-planned and agreed responses and activities are carried out during actual response to the disaster.

c. **Activities to be accomplished within 6 months**

- Provincial government notifies and establishes the DDMA Gwadar.
- Identify and appoint DDMA members
- Conduct first DDMA meeting to familiarize members about the DDMA setup
- Conduct orientations for each line department of the district
- Conduct seminars to familiarize district assembly about the DDMA
- Conduct workshops to further clarify DRM structure, roles and responsibilities at tehsils, union councils and village levels
- Conduct seminars to familiarize tehsil authorities about the DDMA
- Conduct seminars to familiarize union councils about the DDMA
- Conduct seminars to familiarize villages about the DDMA
- Call a multi-agency meeting with other stakeholders (CBOs, I/NGOs, donors, media, etc.) to introduce DDMA and discuss coordination mechanisms.

d. **Activities to be accomplished within First Year**

- Establish and resource a functional District Emergency Operations Centre (EOC) that will support the DDMA in coordinating response and communications during emergencies.
- Conduct series of workshops to develop contingency plan per line department based on worst case scenarios for specific disasters affecting the district covering all aspects and phases of disaster risk management based on the District Disaster Risk Management Plan. Contingency Plans will include Standard Operating Procedures covering the various DRM activities to be undertaken by the district
- Support the tehsil, union council and village administration in developing their own Disaster Risk Management Plans based on the district policies and procedures.

e. **Anticipated Supply and Equipment Requirements**

- Planning and coordination manuals
- Copies of national, provincial and local ordinances as reference
- Funds for planning workshops and meetings
- Various materials and equipment for training sessions
- District Emergency Operations Centre equipped with
- Telephone (with email service) units
- 2 computer / printer sets for documentation, tables, bulletin and monitoring boards

- 1 VHF base station / 1 VHF repeater / one VHF handheld (walkie talkie) for every key staff
- Means of transport and heavy equipment like bulldozers during emergency operations.

f. Work Plan

Activities	Lead Agency / Responsibility	Cooperating Agency / Department	Period of Completion	Verifiable Indicators
Provincial government notifies district government about the NDMO	District Nazim, DCO	Balochistan Provincial Government, Gwadar HRD & Civil Defence	Within 6 months	Minutes of meetings, transmittal letter from Balochistan
DDMA members identified and appointed	District Nazim, DCO	Planning Department and HRD	Within 6 months	Minutes of meeting, list of members
Conduct first DDMA meeting to familiarize members about the NDMO and the DDMA setup	District Nazim, DCO	BALOCHISTAN Provincial Movement, HRD	Within 6 months	Minutes of meeting, participants list
Conduct separate DDMA orientation for each district line department and office	Planning Department and HRD	DCO, EDO of concerned department	Within 6 months	Minutes of meeting, participants list
Seminars for district assembly about the DDMA	District Nazim, District Naib Nazim	Planning Department and HRD	Within 6 months	Minutes of meeting, participants list
Conduct workshops to further clarify DRM structure, roles and responsibilities at tehsil, union council and village levels	Planning Department and HRD	Selected TMOs and UC officials, NGOs	Within 6 months	Minutes of meeting, participants list, terms of reference
Seminars for tehsil authorities about the DDMA	Planning Department and HRD	TMA's	Within 6 months	Minutes of meeting, participants list
Seminars for union councils about the DDMA	Planning Department and HRD	UC Officials	Within 6 months	Terms of Reference developed and clarified, list of members
Seminars for village about the DDMA	Planning Department and HRD	Village Council members	Within 6 months	Minutes of meeting, participants list
Call a multi-agency meeting with other stakeholders to introduce DDMA and discuss coordination mechanism	Planning Department and HRD	District Nazim, DCO, concerned line department	Within 6 months	Minutes of meeting, participants list, draft coordination mechanisms
Establish and resource a functional District Emergency Operations Centre (EOC)	Planning Department and HRD	District Nazim, DCO, concerned line department	Within the 1st Year	Terms of reference, appointment letters
Series of workshops to develop contingency plan per line department based on worst case scenarios for specific disasters affecting the district.	Planning Department and HRD	District Nazim, DCO, concerned line department	Within the 1st Year	Minutes of meeting, participants list, contingency plans
Support the tehsil, union council and village administration in developing their own Disaster Risk Management plans.	Planning Department and HRD	District Nazim, DCO, TMA's, UC. Council and Village Council	Within the 1st Year	Minutes of meeting, participants list, DRM plans

4.1.2. PRIORITY AREA 2: Hazard and Vulnerability Assessment

a. Key Issues

Unfortunately information on hazard risk, specific to vulnerable areas and at various levels (tehsils, union council, and village) is very limited. Also, information for identifying priorities and making decisions for risk reduction is not centrally available.

Hazard, Capacity & Vulnerability Assessment (HCVA) needs to be undertaken at village, union council, tehsil and district levels. To facilitate this, there is a need to develop a mechanism and system for collecting available information and continuous monitoring of hazard risks and vulnerabilities. Various departments regularly collect data on departmental concerns (i.e. Agriculture Department on agricultural statistics; Revenue Department on land and taxes etc.). These existing systems need to be reviewed to incorporate hazard and disaster risk analysis. Instruments to be developed would enable decision makers at all levels to take effective decisions to develop risk reduction policies, strategies and programmes.

Village, union council and tehsil level maps should include analysis on vulnerability of settlements, housing stock, important infrastructure and environmental resources. They will indicate location of key settlements in hazard-prone areas. The analysis will describe the types of existing housing stock in hazard-prone areas, and the potential of damage to various housing categories. The vulnerability analysis will identify key infrastructure and environmental resources in each local area that are prone to damage and loss from prevalent hazards. Vulnerabilities of various social groups in hazard prone areas will also be analyzed. The HCVA will inform development of Damage, Needs Capacity Assessment (DNCA) during actual disasters. There will be separate DNCA formats and procedures at various tiers of the government.

Technical support by experts from specialized government agencies such as national Engineering Services Pakistan (NESPAK), Pakistan Meteorological Department (PMD), Federal Flood Commission (FFC), Geological Survey of Pakistan (GSP), Balochistan Coastal Development Authority (BCDA) etc. can be requested to ensure scientific analysis of the geology and past history of hazards. They would also review secondary data from the 1998 census and other sources. Consultations with selected communities and stakeholders would be organized to assess hazard exposure, disaster impact and vulnerabilities.

A central database should be developed and located at the District Emergency Operations Centre. The database will be made available to all stakeholders for access.

b. Lead Agency

The Revenue Department will be the lead agency in this priority area and will define appropriate assessment methodology, identify the sources and amount of information required and ensure that credible baseline data and standardized sectoral assessment protocols are available in order to facilitate a timely and efficient assessment of emergency situations. The Revenue Department will take the lead in designing of the methodology and conducting the HVCA. NGOs and other relevant agencies will be involved in the whole process.

c. **Activities to be accomplished within 6 months**

- Review existing data gathering methods and tools of various departments to conduct disaster risk analysis.
- Develop HCVA tools and assessment methodologies
- Identify HCVA facilitators from the district personnel and from priority tehsil, UCs and villages as well as from NGOs/ CBOs
- Conduct 1st Facilitator's Training of HCVA facilitators
- Conduct HCVA of village and union councils included in high priority hazard zones, mentioned in section 3 of the DDRMP, specifically generating hazard specific table indicating the location of various hazards with priority zones of risk levels; e.g. low, moderate and sever
- Collection of HCVA
- Develop Damage Needs Capacity Assessment forms
- Set-up database of district

d. **Activities to be accomplished within First Year**

- Update, contextualize and standardize assessment formats
- Identify HCVA facilitators in other tehsils, UCs, village and NOGs/CBOs
- Conduct 2dn Facilitator's Training of HCVA facilitators
- Carry out HCVA of other village and union councils
- Collection of HCVA
- Update district database

e. **Anticipated Supply and Equipment Requirements**

- Assessment format and protocols
- Photocopy machine, computer sets and cameras (digital, still and video)
- Transport and communication facilities during field operations
- Funds for training sessions
- Various materials and equipment for training sessions

f. **Work Plan**

Activities	Lead Agency / Responsibility	Cooperating Agency / Department	Period of Completion	Verifiable Indicators
Review existing data gathering ? methods and tools of various department to conduct disaster risk analysis	Revenue Department	DCO, HRDO, Community Development, TMAs, NGOs, CBOs	Within 6 months	Minutes of meetings, TORs developed, appointment letters, list of assessment tools
Develop HCVA tools and methodology	Revenue Department	DCO, HRDO, Community Development, TMAs, NGOs, CBOs	Within 6 months	Minutes of meetings, draft tools
Identify HCVA facilitators from the district personnel and from priority tehsil, UCs and villages as well as from NGOs/ CBOs	Revenue Department / HRDO	DCO, HRDO, Community Development, TMAs, NGOs, CBOs	Within 6 months	List of facilitators
Conduct 1st Facilitator's Training of HCVA facilitators	Revenue Department / HRDO	DCO, HRDO, Community Development, TMAs, NGOs, CBOs	Within 6 months	Training report, participants list

Activities	Lead Agency / Responsibility	Cooperating Agency / Department	Period of Completion	Verifiable Indicators
Conduct HCVA of villages and union councils included in high priority hazard zones mentioned section 3 of the DDRMP	Revenue Department / HRDO/ HCVA Facilitators	Community Development, TMAs, NGOs, CBOs	Within 6 months	Draft HCVA report per village
Collection of HCVAs	HCVA Facilitators	HRDO, Revenue Dept, Community Development, TMAs, NGOs, CBOs	Within 6 months	HCVA report per village
Develop DNCA procedures	HCVA Facilitators	HRDO, Revenue Dept, Community Development, TMAs, NGOs, CBOs	Within 6 months	DNCA forms for village, UC, tehsil and district level
Set-up database of district	Revenue Department / HRDO/ HCVA Facilitators	Community ? Development, TMAs, NGOs, CBOs	Within 6 months	HCVA report per village, UC and tehsil, HCVA database at DEOC
Update, contextualize and standardize assessment formats	Revenue Department / HRDO	DCO, Community Development, TMAs, NGOs, CBOs	Within the 1st year	List of facilitators
Identify HCVA facilitators in other tehsils, UCs, villages and NGOs/CBOs	Revenue Department / HRDO	DCO, Community Development, TMAs, NGOs, CBOs	Within the 1st year	List of facilitators
Conduct 2nd Facilitator's Training of HCVA facilitators	Revenue Department / HRDO	DCO, Community Development, TMAs, NGOs, CBOs	Within the 1st year	Training report, participants list
Carry out HCVA of other villages and union councils	Revenue Department / HRDO/ HCVA Facilitators	Community Development TMAs, NGOs, CBOs	Within the 1st year	Draft HCVA report per village
Collation of HCVA	HCVA Facilitators	HRDO, Revenue Dept, Community Development, TMAs, NGOs, CBOs	Within the 1st year	HCVA report per village
Update district database	Revenue Department / HRDO/ HCVA Facilitators	Community ? Development, TMAs, NGOs, CBOs, DEOC	Within the 1st year	HCVA report per village, UC and tehsil, HCVA database at DEOC

4.1.3. PRIORITY AREA 3: Training, Education and Awareness

a. Key Issues

Lack of knowledge of general public and local officials about severity of hazards that may affect them, associated risks, probable damage, and precautions to be taken is perhaps one of the most significant hindrances in present day efforts to mitigate the potentially disastrous effects of most hazards. It is only when the dangers are understood by the people and when everyone is aware of the precautions that must be taken that an effective government and community effort can be mobilized to save lives and minimize damages.

The government however does not have a public awareness strategy, an important fundamental strategy in other countries. Because of this, an important priority cited for the DDMA is to identify and develop a medium term disaster awareness strategy and

be equipped with financial and technical capacity to implement the strategy. DRM education, training and awareness are required in multiple sectors; e.g. civil servants in government departments and offices, staff of technical agencies, NGOs, media and politicians and communities themselves. Training and education would involve orientation about disaster risks and vulnerabilities, skill development on risk assessment, vulnerability reduction, hazard mitigation and emergency response management. Specialized training in areas of response would also be needed; e.g. search and rescue, first aid, fire fighting, evacuation, camp management and relief distribution. Considering the importance of media, DDMA will establish partnerships with electronic and print media and develop awareness of media personnel. DDMA training, education and awareness program can minimize loss of life, injury, suffering and property damage in a community by:

- Reducing ignorance about hazards, their nature, and the consequences of their impact
- Increasing public knowledge about the severity of disasters due to natural causes and manmade contribution
- Increasing public knowledge about preparedness measures
- Promoting and developing practical skills among general public with a view to improve their response
- Developing a warning system where the public knows what the warning means and what they should do when they hear it
- Achieving support for disaster plans, organizations and measures

DDMA will thus focus on following priority areas to enhance knowledge and develop technical skills on disaster risk management in the district.

- Develop DRM training curricula
- Identify competent trainers for DRM
- Conduct courses for district, municipal and local Disaster Management Authorities in hazard prone areas
- Develop public awareness materials (e.g. posters, brochures, booklets, videos) for training, education and public awareness
- Organize media orientations about its role in promoting disaster risk management and community preparedness

b. Lead Agency

The Human Resources Development Department under the Office of the District Coordination Officer will be the lead agency in this priority area and will assess levels of awareness, training and skills needed among government personnel, and thereafter design, implement and evaluate awareness campaigns, skills training and drills. Training Needs Assessment (TNA) based on departmental roles will be conducted to ensure appropriate training is provided to each person or task unit. The HRDO will liaise and work with other technical agencies, NGOs and UN to support training of personnel.

c. Activities to be accomplished within 6 months

- Identify a pool of district trainers coming from government, NGOs and technical agencies

- Prepare resource inventory of training materials and curricula already in circulation
- Assess and collect all available resources printed materials, equipment, trainers, service providers, possible collaborative partners, etc.
- Develop training needs assessment tool/s
- Conduct assessment (TNA) of government staff levels of awareness
- Organize TOT for pool of trainers

d. **Activities to be accomplished within First Year**

- Conduct familiarization training of various government personnel from the district, tehsil, union council and village levels about DDMA
- Design village awareness-raising campaigns
- Implement awareness-raising campaigns in village
- Design a training program with the following likely components:
 - o General disaster risk management awareness training for all personnel
 - o First aid
 - o Collapse structure search and rescue
 - o Emergency response
 - o Radio operations
 - o Early warning
 - o Damage needs assessment
 - o Media training
 - o Medial first responders training
 - o Mass casualty management
 - o Evacuation camp management
 - o Radio communications & notification systems
- Implement the above mentioned training program
- Implement drills and monitoring activities at the various levels
- Review training curricula and materials

e. **Anticipated Supply and Equipment Requirements**

- Transport facilities
- Funds for training activities
- Various materials and equipment for training sessions
- Trainers and experts

f. **Work Plan**

Activities	Lead Agency / Responsibility	Cooperating Agency / Department	Period of Completion	Verifiable Indicators
Identify a pool of district trainers coming from government, NGOs and technical agencies	DCO, HRDO	EDO of line departments, NGOs.	Within 6 months	TORs developed, appointment letters, Facilitators list
Prepare resource inventory of training materials and curricula already in circulation	HRDO, trainers pool	As appropriate line departments, NGOs, technical agencies	Within 6 months	Inventory list

Activities	Lead Agency / Responsibility	Cooperating Agency / Department	Period of Completion	Verifiable Indicators
Assess and collect available resources – printed materials, equipment, trainers, service providers, possible collaborative, partners, etc.	HRDO, trainers pool	As appropriate line departments, NGOs, technical agencies	Within 6 months	Assessment report, minutes of meetings
Develop Training Needs Assessment tool/s	HRDO, trainers pool	As appropriate line departments, NGOs, technical agencies	Within 6 months	Draft TNA tool/s
Conduct assessment (TNA) of government staffs levels of awareness	HRDO, trainers pool	As appropriate line departments, NGOs, technical agencies	Within 6 months	Report on current skills, awareness and capacity of district
Organize TOT for pool of trainers	HRDO, trainers pool	As appropriate line departments, NGOs, technical agencies	Within 6 months	Training report, participants list
Conduct familiarization training to various government personnel from the district, tehsil, union council and village about DDMA	HRDO, trainers pool	DCO, EDOs, DOs, TMAs, UCs, Village leaders, NGOs, technical agencies	Within the first year	Minutes of meetings, District Nazim/ DCO approval
Design village awareness-raising campaigns	HRDO, trainers pool	DCO, EDOs, DOs, TMAs, UCs, Village leaders, NGOs, technical agencies	Within the first year	Minutes of meeting, draft reports; draft tools
Implement awareness-raising campaigns	HRDO, trainers pool	DCO, EDOs, DOs, TMAs, UCs, Village leaders, NGOs, technical agencies	Within the first year	Activity reports, participants list
Design a training program	HRDO, trainers pool	DCO, EDOs, DOs, TMAs, UCs, Village leaders, NGOs, technical agencies	Within the first year	Training curricula, training designs, training materials, participants list
Implement the above mentioned training program	HRDO, trainers pool	DCO, EDOs, DOs, TMAs, UCs, Village leaders, NGOs, technical agencies	Within the first year	Training reports, participants list
Implement drills and monitor activities at various levels.	HRDO, trainers pool	DCO, EDOs, DOs, TMAs, UCs, Village leaders, NGOs, technical agencies	Within the first year	Training reports, activity reports, participants list
Review training curricula and materials	HRDO, trainers pool	DCO, EDOs, DOs, TMAs, UCs, Village leaders, NGOs, technical agencies	Within the first year	Assessment report, updated curricula, training design, materials

4.1.4. PRIORITY AREA 4: Community and Local Risk Reduction Programming

a. Key Issues

Programme implementation at community and local level is at the heart of disaster risk reduction strategies. Disasters are essentially local in terms of their impact and it is local communities and village authorities who first respond to any disaster.

Experience and historical analysis of disasters in Gwadar demonstrate that most disaster events are localized in their scale, affecting few villages, union councils and sometimes villages or union councils located in adjacent tehsils. Considering this characteristic of disaster risks, it is imperative that risk reduction programmes are implemented at local level for capacity development of local officials, communities, civil society organizations and other players; e.g. builders, contractors, masons, teachers and doctors. The utilization of resources and energies at this level will have a more lasting impact. Effective local authorities, local religious leaders, educational institutions, NGOs and community groups can play an important role in this work.

The DDMA will support local governments at tehsil, union council and village levels in adopting the DDRMP in their own disaster risk management plans. Tehsil, union council and village authorities will formulate disaster risk management plans for their respective constituents. The plans would include analysis of hazard-prone areas, vulnerabilities, resources available, strategies for risk reduction, and responsibilities of various stakeholders for disaster preparedness and response. Citizen Community Boards (CCBs) will play an important role in community disaster risk management. Support to TMAs, UCs and village leaders would focus on community organizing, training, awareness-raising, masons training, volunteers training on search and rescue, first aid, evacuation, fire fighting etc. Based upon local risk assessment small scale schemes for mitigation, strengthening of livelihoods and local early warning systems would be implemented. Disaster preparedness activities will also be implemented at village, neighborhood, city and school levels.

b. Lead Agency

At the district level, the Planning Department will take the lead in ensuring tehsils, union councils and villages develop their respective disaster risk management plans. However support from the tehsil administration is required once lower government level planning is initiated. The tehsil officer for planning will be the focal person for DRM within the tehsil administration. He / She will ensure that disaster risk management planning is conducted at tehsil level under the guidance of the Tehsil Nazim. At union council level, he / she will be the secretary for community development who is responsible for DRM.

c. Activities to be accomplished within 6 months

- Identify and appoint focal persons at tehsil, union council and village levels
- Develop Local Planning Framework
- Conduct Training Needs Assessment at tehsil, UC and village levels as well as community based NGOs / CBOs
- Generate resources (funds / trainers) e.g. trainers from within and outside government

d. Activities to be accomplished within First Year

- Organize basic training of focal persons, the policy requirements and operational aspects of DRM at tehsil, UC and village level
- Conduct specialized skills training such as:
 - Facilitator's training
 - Early warning
 - Community based disaster management

- o Basic search and rescue
- o Camp management
- o Disaster preparedness training
- Pilot testing of local DRM planning in one tehsil (at various levels including UCs and villages within the tehsil)
- Develop public awareness campaigns and materials
- Develop school based disaster awareness and preparedness training modules and materials
- Generate resources (from government NGOs, UN, etc.)
- Conduct public awareness activities in villages and communities to increase awareness on hazards as well as preparedness and response activities, communities and households can implement
- Conduct school based disaster awareness and preparedness seminars and activities
- Identify and develop small preparedness and mitigation schemes
- Implement small preparedness and mitigation plans
- Assess / evaluate lessons learnt
- Replicate local DRM planning in other priority tehsils in the district

e. **Anticipated Supply and Equipment Requirements**

- Transport facilities
- Emergency supplies
- Equipped and trained search and rescue unit
- Communication facilities to the health care providers
- Funds for purchase of relief items
- Warehousing facilities and arrangements
- Communication facilities during field operations
- Funds for purchase of camp facilities
- Warehousing facilities and arrangements
- Camp security arrangements
- Various materials and equipment for training sessions
- Trainers and experts

f. **Work Plan**

Activities	Lead Agency / Responsibility	Cooperating Agency / Department	Period of Completion	Verifiable Indicators
Identify and appoint focal persons at tehsil, union council and village levels	DCO, HRDO, Tehsil Nazim, UC Nazim	TMAAs, UCs, NGOs, HRDO	Within 6 months	Focal persons list, appointment letters, terms of reference
Develop Local Planning Framework	Planning Department, Focal Persons, HRDO	Selected line agencies, NGOs, TMAAs, UCs, DCO	Within 6 months	Planning Framework / Guide
Conduct Training Needs Assessment at tehsil, UC and village levels as well as community based NGOs / CBOs	HRDO, Focal persons	TMAAs, UCs, NGOs	Within 6 months	TNA reports
Generate resources (funds / trainers) e.g. trainers from within and outside government	Planning & Finance EDO	District Nazim, DCO	Within 6 months	Funds available or appropriated

Activities	Lead Agency / Responsibility	Cooperating Agency / Department	Period of Completion	Verifiable Indicators
Organize basic training of focal persons	HRDO	Planning Department, NGOs, technical agencies, DCO, TMA, UC	Within the first year	Training report participants list
Conduct skills training for focal persons	HRDO	Planning Department, NGOs, technical agencies, DCO, TMA, UC	Within the first year	Training report participants list
Pilot test local DRM planning in one tehsil (at various levels including UCs and villages within the tehsil)	Focal Persons	Planning Dept. HRDO, Tehsil Nazim, UC Nazim, Village leaders, NGOs / CBOs	Within the first year	Training reports, draft plans
Develop public awareness campaigns and materials	Focal Persons, HRDO	Media, IT Department, Education Department, NGOs, HRDO	Within the first year	Public Awareness materials and kits
Develop school-based disaster awareness and preparedness training modules and materials	Focal persons, local teachers	Media, IT Department, Education Department, NGOs, HRDO	Within the first year	School based awareness materials such as posters, billboards, comics, etc.
Generate resources: (from government, NGOs, UN, etc.)	Planning & Finance EDO, Tehsil and UC Nazims	District Nazim, DCO, Focal persons	Within the first year	Funds available or appropriated
Conduct public awareness activities in villages and communities	Focal persons and NGOs	Media, IT department, education department, NGOs, HRDO	Within the first year	Activity reports, participants list, photo documentation
Conduct school based disaster awareness and preparedness seminars and activities	Focal persons, local teachers and NGOs	Media, IT department, education department, NGOs, HRDO	Within the first year	Activity reports, participants list, photo documentation
Identify and develop small preparedness and mitigation schemes	Focal persons	TMA, UC, Village leaders and communities	Within the first year	Activity reports, implementation plans
Implement small preparedness and mitigation plans	Focal persons	TMA, UC, Village leaders and communities	Within the first year	Implementation reports
Assess / evaluate / lessons learnt	Focal persons, planning Department, HRDO	DCO, Nazims, TMA, UC, Village leaders and communities	Within the first year	Assessment report, participants list, implementation reports
Replicate local DRM planning in other priority tehsils in the district	Focal Persons, Planning Department, NGOs	HRDO, Tehsil Nazim, UC Naizm, Village leaders, NGOs/ CBOs	Within the first year	Replication strategy

4.1.5. PRIORITY AREA 5: Multi-hazard Early Warning System

a. Key Issues

The primary objective of a multi-hazard early warning system (EWS) is to generate advance warnings and thus improve capacity of decision makers and communities to take appropriate action prior to occurrence of a hazard. It consists of collection, consolidation, analysis and dissemination of risk information. Early warning has the potential to contribute significantly to reducing disaster losses.

District Gwadar does not have many resources available to establish a state-of-the-art

early warning system. However, there is capacity to establish community based early warning systems on seasonal disasters such as Cyclones & Floods. Hazard Mapping and Analysis from village, union council and tehsil levels can feed into a district early warning system. Strengthening of monitoring and analysis capabilities at village level is a priority.

The Gwadar EWS will be established by developing capacity at grassroots level in schools and villages and by improving and expanding existing resources and capacities and networks. The EWS will include facilitating multi-agency interface, and sharing of technical information and indigenous knowledge about hazards amongst multiple stakeholders. Local media's role will be reviewed, enhanced and utilized to improve dissemination of warnings. Linking communities with warning agencies would be an essential component. Initiatives will be taken to build capacities of communities in early warning by connecting them and by providing necessary warning equipment.

Assistance from technical agencies such as the PMD, FFC, QESCO, GSP, PNRA, etc. will be sought to assist the district. Likewise, during the development of district and community based EWS, the existing provincial EWS will be considered.

b. Lead Agency

The Information Department with the support of other stakeholders will be the lead agency in developing the district EWS.

c. Activities to be accomplished within 6 months

- Identify and appoint focal persons at tehsil, union council and village levels for early warning.
- Prepare resource inventory of available communications equipment with user location / addresses based on individual agency inventories.
- Develop Standard Operating Procedures (SOPs) on the use and maintenance of communication equipment.
- Identify communication centers outside the government (such as UN, other agencies within and outside the district)

d. Activities to be accomplished within First year

- Devise early warning system from village, union council, tehsil and district levels, utilizing forecast from technical agencies such as the Pakistan Meteorological Department, Dams Safety Council, etc.
- Devise and develop public awareness schemes, activities and Information, Education, Campaign (IEC) materials to inform a wide number of people about the EWS.
- Establish community early warning teams in priority flood-prone villages.
- Organize community workshops to install the system.
- Conduct community trainings specific to EWS.
- Identify key media persons and companies.
- Call media meetings to develop coordination mechanisms regarding early warning develop and conduct media training on EWS.

e. **Anticipated Supply and Equipment Requirements**

- Transport facilities.
- Emergency supplies.
- Equipped and trained search and rescue unit.
- Funds for purchase of early warning equipment.
- Communication facilities during field operations.
- Various materials and equipment for training sessions.
- Trainers and early warning experts.
- Functional Emergency Operations Centre (EOC).

f. **Work Plan**

Activities	Lead Agency / Responsibility	Cooperating Agency / Department	Period of Completion	Verifiable Indicators
Develop Standard Operating Procedure (SOPs) on the use and maintenance of communication equipment	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within 6 months	SOPs, minutes of meetings
Identify communication centres outside the government (such as UN, other agencies within and outside the District)	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within 6 months	Communications centres list
Devise early warning system from village, union council, tehsil and district level	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within the first year	Draft Community EWS
Devise and develop public awareness schemes, activities and IEC materials	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within the first year	Public awareness materials related to EWS
Establish community early warning teams in priority flood-prone villages	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within the first year	EW teams list
Organize community workshop to install the system	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within the first year	Community meetings report, approved community based EWS
Conduct community trainings specific to EWS	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within the first year	Training module, training reports, participants list
Identify key media (persons and companies)	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within the first year	Media List
Call media meetings to develop coordination mechanisms regarding early warning	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within the first year	Minutes of meeting, participants list
Develop and conduct Media training on EWS	IT Dept., focal persons	Line Agencies, NGOs, other private groups, DCO, TMA, UCs, DPO	Within the first year	Training report, participants list

4.1.6. PRIORITY AREA 6: Mainstreaming DRR into Development

a. Key Issues

An important issue that needs to be integrated into government procedures is to promote adoption of risk sensitive approaches in development planning and programming in all sectors. The purpose of mainstreaming efforts is to ensure that all development infrastructures in hazard-prone areas are built to higher standards of hazard resiliency; e.g. schools, hospitals, roads, bridges, dams and telecommunications infrastructure etc. This can be done by incorporating risk and vulnerability assessment into the project planning stage and by including vulnerability reduction measures in project implementation, in case the proposed projects are found vulnerable to hazard risks.

DDMA will review current and relevant district ordinances and procedures to incorporate risk assessment into project planning and implementation. The Planning, Communication & Works and Revenue Departments will play a great role in the review of these policies. With the support of technical agencies and other organizations, DDMA will conduct workshops for selected line departments to orient them on integrating risk assessment in programme planning and design, and to include vulnerability reduction in programme implementation.

b. Lead Agency

The Planning Department is the lead agency to ensure disaster risk management is integrated in existing development planning process and procedures of the district.

c. Activities to be accomplished within 6 months

None

d. Activities to be accomplished within First year

None

e. Activities to be accomplished in the second year (FY2009-2010)

- Organize workshop to develop mechanism to integrate DRR in Annual Development Planning.
- Get approval of recommended mechanism.
- Conduct training on DRR integration planning.
- Organize actual integration planning workshops.

f. Anticipated Supply and Equipment Requirements

- Transport facilities.
- Funds for DRR activities and projects.
- Various materials and equipment for training sessions.
- Trainers and planning experts.

g. Work Plan

Activities	Lead Agency / Responsibility	Cooperating Agency / Department	Period of Completion	Verifiable Indicators
Organize workshop to develop mechanism to integrate DRR in annual development planning	Planning Department	DCO, Planning Department	FY2009-10	Workshop minutes, draft mechanism
Get approval of recommended mechanism	DCO, District Nazim	DDMA, DCO	FY2009-10	Integration Planning Guide
Conduct training on DRR integration planning	HRD	Planning Department, DCO	FY2009-10	Training module, minutes of meetings
Organize actual integration planning workshops	EDOs of concerned department	DDMA members, TMAs, relevant agencies	FY2009-10	Training report, list of participants

Roles and Responsibilities of Key Stakeholders

5

5.1 Line Departments

The various line departments will be responsible for coordinating and facilitating the performance of certain emergency services and functions within their departments. These activities would ensure availability and movement of staff and resources of their respective departments for response to the emergency at hand. Additional assistance of the District Emergency Operations Centre (DEOC) may be sought in emergency situations.

The activities will be as follows:

- Revenue Department.
- Seek funds to support disaster risk managements activities.
- Establish relief distribution centers.
- Accept relief donations and relief support.
- Put up camps, if warranted by the situation, and manage the same.
- Request assistance from the DEOC, as needed.
- Submit reports to DEOC of the operations and expenses.

Finance and planning Department

- Coordinate with DDMA regarding needs for financial resources to promote disaster risk management programs in hazard prone areas.
- Allocate financial resources based upon plans of the DDMA and other relevant departments for implementation of disaster risk management activities as part of the development plans.
- Monitor and evaluate utilization of funds by relevant authorities on disaster risk management.
- Incorporate provisions in microfinance schemes to have flexible repayments schedules that can be activated in the event of recipients being affected by disasters

Agriculture and Livestock

- Undertake vulnerability and risk analysis for food agriculture and livestock sectors particularly in relations to floods and landslides.
- Coordinate with DDMA and jointly identify appropriate actions for reducing vulnerability of food, agriculture and livestock to disaster risks.
- Develop disaster risk management plan to deal with impending hazards.
- Develop capacity and raise awareness of staff and extension workers and farmers on disaster preparedness for food, agriculture and livestock.

- Assist in saving crops, agricultural land and livestock in disaster situation.
- Make available inputs like seed plants, fertilizers and agricultural equipment to victims of disasters on credit basis.
- Survey and investigate extent of damages to crops and livestock.
- Ensure adequate availability of food stocks in disaster situation.

Education Department

- Identify and prepare inventory of vulnerable educational institutions and infrastructure of the department in hazard prone areas.
- Implement action to reduce vulnerability of built infrastructure in education sector in hazard prone areas, e.g. retrofitting, renovations rebuilding etc.
- Conduct orientation programs to raise awareness of education authorities, professors and teachers about disaster risks in hazard prone areas.
- Develop curriculum of schools on risk management.
- Encourage local educational authorities and teachers to prepare school disaster response plans and their implementation.

Army

- Maintain liaison with the DEOC for vital inputs during warning period.
- Collate information and warn appropriate army units.
- Coordinate movement of human resources and material as required.
- Establish communication system reaching till the sites of disaster and supplement the civil communication set up if required.
- Coordinate all military activity required by the civil administration.
- Command centre for relief. This would include provision of communication (radio, telephone) and specialized manpower.
- Provide medical aid.
- Provide medical care with the help of medical teams, including treatment at the nearest armed forces hospital.
- Organize transportation of relief material.
- Provide logistic back-up (aircrafts, helicopters, boats, etc) and vehicles for transportation of relief material to the effected areas.
- Establish relief camps.
- Set up relief camps and oversee their running, if needed.
- Construct and repair roads and bridges to enable relief teams/material to reach affected areas. This will include provision of technical and plant equipment such as cranes, bulldozers and boats etc.
- Organize maintenance of essential services.
- Repair, maintenance and running of essential services in the initial stages of relief.
- Evacuate people to safer areas.
- Assist in evacuation of people to safe places before and after the disaster.
- Local management of international relief can be undertaken by the defense services.

Civil Defense (After it has been set up and Organized in Gwadar District)

- Rescue and evacuation.
- Supplement disaster response equipment of armed forces.

- Build public confidence by introduction of more effective measures for protection and ensuring adoption of requisite preventive measure by the community.
- Communicate to DEOC details of all the above activities.
- Communicate to DEOC any additional resources required for performing the above tasks.

Fire Brigade (After it has been set up and Organized in Gwadar District)

- Rescue and evacuation.
- Salvage Operations.
- Communicate to DEOC details of all the above activities.
- Communicate to DEOC any additional resources required for performing the above tasks.

Health

- Survey of affected areas.
- Provide emergency treatment for the seriously injured.
- Ensure emergency supplies of medicines and first-aid.
- Corpse disposal.
- Preventive medicine and anti-epidemic actions.
- Supervise food, water supplies, sanitation and disposal of waste.
- Assess and co-ordinate provision of ambulances and hospitals where they could be sent (public and private);
- Provide special information required regarding precautions for epidemics.
- Set-up an information centre to organize sharing of information with public.
- Communicate to DEOC details of all the above activities.
- Communicate to DEOC any additional resources required for performing the above tasks.

Community Development Department (Social Welfare)

- Assist the most vulnerable, poor families headed by widows and the disabled.
- Undertake public awareness raising campaigns.
- Provide vocational trainings (focus on disabled).
- Collect data on survivors.
- Provide information on the situation of rural areas and submit the same to the DEOC.
- Provide the DEOC with reports on the impact of disaster on women, children and poor in affected areas.
- Extend advisories to the DEOC regarding observance or violation of gender principles.
- Send report to the DEOC regarding needs assessment of vulnerable segments of the populations.
- Monitor progress of relief operations in the rural areas.
- Send advisors to the DEOC on the progress of disaster situation.
- Assist and facilitate Damage and Needs Assessments teams from NGOs.
- Communicate to DEOC details of all the above activities.
- Communicate to DEOC any additional resources required for performing the above tasks.

TMA and UC Representatives

- Provide information on situation in the tehsil and union councils and submit the same to the DEOC.

- Monitor progress of relief operations in their respective areas.
- Send advisories to the DEOC on the progress of disaster situation.
- Building control systems.
- Assist and facilitate damage and needs assessment teams from the district and NGOs

Police

- Co-ordinate with DEOC.
- Cordon the area to restrict movement of vehicular and pedestrian traffic.
- Shift the rescued/affected people to hospitals.
- Provide easy access to rescue and relief personnel/vehicles.
- Coordinate with health department for corpse disposal.
- Maintain law and order at all times.
- Divert traffic on alternate routes as and when necessary in co-ordination with the Communications and Works Department (C&W Dept).
- Request C&W Dept for providing access through roads during emergencies for specific time duration and monitor the requirement of such an access.

Communications and Works Department

- Send advisories to the DEOC on road conditions especially regarding blocked or impassable roads.
- Organize draining of flood/cyclone/heavy rains waters from roads.
- Set-up an information centre to organize information for public.
- Rescue and Salvage Operations for road accidents.
- Monitor flood situation and landslide on roads and co-ordinate with DEOC for mass transport requirements and advisory on rerouting of traffic, as needed.
- Communicate to DEOC details of all the above activities.
- Communicate to DEOC any additional resources required for performing the above tasks.

5.2 Non-Governmental Organizations (NGOs) and Voluntary Agencies

The non-governmental organizations and voluntary agencies 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 co-ordination, it is desirable that they follow the standards of services (as given in the Guidelines), information exchange and reporting so as to enable the DEOC to have a total picture of resource availability, disbursements and requirements. NGOs therefore have been assigned specific tasks by the District Nazim to undertake relief work within the overall institutional framework. As and where possible, NGOs may also be able to improve the quality of delivery of services. In addition, CBO Committees have been operating at the community level, especially in times of emergencies like houses collapses, fires, and floods. Such committees have been identified at the ward level.

Specific activities in which NGOs/private sector can be involved during disaster management operations are:

- Search and rescue operations.
- Information dissemination.
- First aid.
- Burial of dead.

- Damage and Need Assessment.
- Management of information centers at temporary shelters.
- Mobilization and distribution of relief supplies included finances.
- Community mobilization, crowd control, rumor control, traffic management.
- Specialized services (psychiatric and mental health assistant).
- Management of transit camps.
- Rehabilitation activities.
- Livelihood support.
- Community based disaster management

The following agencies will be associated with relief and rehabilitation activities. Most of these agencies have capacity to mobilize required resources and have assisted the administration in the past in managing relief and rehabilitation activities. These agencies include:

- RCDC
- IUCN
- Wetland Complex of WWF Pakistan
- NCHD
- SPO
- NRSP
- Taraqi Foundation
- SEHR
- Marie Stopes Society

5.3 NGOs Expertise available in the following scenarios of DRM

Department / Agency	Pre-disaster responsibilities	During disaster responsibilities	Post disaster responsibilities
Rural Community Development Council-RCDC	Volunteers, Early warnings, Data collection, Coordination, Utilization of Local resources,	Search & Rescue, Relief Projects, Sending updates	Water & Sanitation rehab, Advocacy & lobbying, Health & Sanitation Coordination
Pakistan Wetlands Program, MCWC-Gwadar	Oil disaster Management planning for Balochistan Coast	Preliminary Assessments, Information Sharing	Aqua Culture (fishes) Agriculture initiatives Support for Nets and medicines
National Commission for Human Development (NCHD) Gwadar	Volunteers Network, Trainings on Relief Management	Comprehensive relief Support Medical Camps	Reconstruction and Rehabilitation
Balochistan Coastal Development Authority	Early Warnings to coastal communities Post disaster assessments	Emergency assessments Relief/compensation distribution	—

5.4 Pre, During and Post Disaster Involvement of District Departments

1. Police		
Pre	During	Post
<ul style="list-style-type: none"> • Assign representatives for DDMA, • Participate in DDMA meetings • Information sharing regarding capacities and needs of police department regarding Disaster management • Capacity building of police department regarding Disaster management • Information dissemination through 15 helpline service to local residents 	<ul style="list-style-type: none"> • Co-ordinate with District DEOC • Shifting the rescued/ affected people to hospitals • Providing easy access to rescue and relief personnel /vehicles • Corpse disposal • Maintain law and order • Prohibits overloading goods in trucks. • Provide warning/ instruction to travelers 	<ul style="list-style-type: none"> • Cooperate with DDMA • Provide security in the safe area • Ensure security to workers of NGOs and INGOS who perform duties for rehabilitation of the victims. • Capacity building of police department regarding Disaster management • Prepare overall report of the department regarding intervention and disseminate to DDMA and other

<ul style="list-style-type: none"> • Capacity building regarding disaster • Prepare team for emergency intervention 	<ul style="list-style-type: none"> • Divert traffic on alternate routes as and when necessary. • Ensure security to workers of NGOs and INGOS who perform duties for emergency response. 	<ul style="list-style-type: none"> • GOs / NGOs/INGOs • Development of contingency plan in the light of lesson learned
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2. Revenue Department

Pre	During	Past
<ul style="list-style-type: none"> • Assign representatives for DDMA, and participate in meetings • Information sharing regarding capacities and needs of Revenue department regarding Disaster management • Capacity building of Revenue department regarding Disaster management • Assessment of high prone areas and estimation of possible damage and needs for recovery in case of emergency • Arrangements of financial resources (bloc grants) • Facilitation in getting tax exemptions to institutions/ NGOs/INGOs focus on disaster management 	<ul style="list-style-type: none"> • Coordination with the DEOC • Establish relief distribution centers • Accept relief donations and relief support • Timely release of funds • Request assistance from the DEOC, as needed • Submit financial reports to the DEOC of the operations for onward circulation to all stakeholders 	<ul style="list-style-type: none"> • Submit progress report to all relevant stakeholders • Assessment of damage of industry/business, crops and live stock and settlement of applicable taxes accordingly in coordination with industry, agriculture and irrigation departments. • Facilitation to institutions / NGOs/ INGOs which focus on rehabilitation activities. • Capacity building of Revenue department regarding Disaster management

3. Social Welfare and Community Development

Pre	During	Past
<ul style="list-style-type: none"> • Capacity building of Social Welfare department regarding Disaster management • Coordination of all NGOs and civil society organization working for disaster preparedness • Empower the extremely vulnerable people emphasizing women and children through public awareness involving respective departments for various fields such as Education, health etc. • Capacity building of CCBs, CBOs and other community groups • Establish a pre-disaster data base system. • Enlisting and linkages building with institutions / NGOs/INGOs focusing disaster management in coordination with Revenue department • Facilitation in procedural functioning of institutions /NGOs/INGOs focus on disaster management 	<ul style="list-style-type: none"> • Provide information on the situation of the disaster to the DEOC • Coordination of all NGOs / INGOs and civil society organization working during the emergency response • Monitor progress of relief operations in the affected areas • In coordination with Health and Revenue departments , ensure delivery of relief to most vulnerable segments of society such as children, orphans, widows, destitute • Send advisories to the DEOC on the progress of the disaster situation • Assist and facilitate Damage and Needs Assessment teams from NGOs • Share its human resources with DDMA. 	<ul style="list-style-type: none"> • Monitor and follow up the status of the extremely vulnerable people. • Summarize all losses (life, properties) of the extremely vulnerable people • Allocate budget for extremely vulnerable • Assist and facilitate Damage and Needs Assessment teams from NGOs • Facilitation to institutions / NGOs/ INGOs which focus on rehabilitation activities • Conduct impact assessment studies and analysis of strengths and weaknesses of stakeholders and disseminate learning to DDMA and other concerned institutions • Capacity building of Social Welfare department regarding Disaster management

4. Health

Pre	During	Past
<ul style="list-style-type: none"> • Assign representatives for DDMA, and participate in meetings • Information sharing regarding capacities and needs of health department regarding Disaster management • Capacity building of health department regarding Disaster management • Monitor the general health situation, e.g. monitor outbreak of diseases • Provide specific information required regarding precautions for epidemics • Establish a health mobile team in district & tehsil headquarter hospital • Set-up an information centre to organize sharing of information for public information purposes • Prepare first aid kits, medicines, water test kits, chloramines and anti snake venom serum. • Conducted training for medical staff and health personnel /community groups regarding preventive health care especially in disaster prone areas • Collaboration with relevant organizations / partner NGOs for participation and support through financial and technical resources • Up-gradation and smooth functioning of hospitals, BHUs, equipped with required staff and equipment • Data base and linkages with ambulance services/blood banks • Provision of the safe drinking water. • Health Education (a never ending task) • Early detection of cases. • Ongoing Surveillance • Facilitate education department and institutions regarding preparation of health related curriculum • Facilitation to water management department in treatment and disposal of industrial and urban waste • Ensure proper disposal of hospital waste 	<ul style="list-style-type: none"> • Providing emergency treatment for the seriously injured • Ensure emergency Supplies of medicines and first-aid • Supervision of food, water supplies, sanitation and disposal of waste • Assess and Co-ordinate provision of ambulances and hospitals where they could be sent, (public and private); • Provide special information required regarding precautions for epidemics • Set-up an information centre to organize sharing of information for public info purposes • Communicate to DEOC • Communicate to DEOC any additional resources required • Prepare first aid kits, medicines, water test kits, chloramines and anti snake venom serum. • Provision of the safe drinking water. • Medical camps and vaccination • Facilitation & collaboration with all NGOs / INGOs and civil society organization working during the emergency response in health sector 	<ul style="list-style-type: none"> • Conduct impact assessment on Health • Intervene immediately when there is a disease outbreak • Prepare plan for the following year and reports and submit to DDMA. • Medical camps and vaccination • Health Education in collaboration with social welfare and education departments. • Ongoing Surveillance • Facilitation to institutions/ NGOs/ INGOs which focus on rehabilitation of health facilities • Rehabilitation of health infrastructure affected during disaster • Preparation of impact assessment surveys covering strengths and weaknesses of interventions and impact on affected victims and dissemination learning to DDMA and other concerned institutions • Capacity building of health department regarding Disaster management • Facilitate education department and institutions regarding preparation of health related curriculum • In collaboration with water management department conduct impact assessment and monitoring to inspect treatment and disposal of industrial, urban waste and hospital waste

5. Civil Defense

Pre	During	Past
<ul style="list-style-type: none"> • Assign representatives for DDMA, and participate in meetings • Information sharing regarding capacities and needs of Civil Defense department regarding Disaster management • Capacity building of Civil Defense department regarding Disaster management • Information sharing regarding technical and personnel expertise with DDMA • Conduct trainings for Volunteers' regarding first aid and other relevant expertise in collaboration with health and community development department • Create awareness regarding rescue, evacuation and first aid • Affectively establish, train and systemize volunteers initiatives in collaboration with education department/ institutions 	<ul style="list-style-type: none"> • Fire fighting • Rescue and evacuation • In coordination with community development and education department assign volunteers for emergency response. • Communicate to DEOC about details of all activities • Communicate to DEOC any additional resources required for performing the above tasks • Facilitate as per demand in disaster response. 	<ul style="list-style-type: none"> • Identify gaps, make plan for future to overcome weakness of department. • Capacity building of Civil Defense department, Volunteers regarding Disaster management • Prepare overall report of the department regarding interventions and disseminate to DDMA and other GOs / NGOs/INGOs

6. Army

Pre	During	Past
<ul style="list-style-type: none"> • Coordinate with the DDMA in the pre disaster planning • Prepare necessary equipments, labor, transportation mean and other materials for emergency intervention • Protect roads from getting flooded (i.e. sand bagging and enforcement of embankments • Providing training to soldiers and determined the role of the soldiers who are stationed in flood prone areas. • Assist in evacuation of people to safe places before the disaster 	<ul style="list-style-type: none"> • Maintain liaison with the DEOC for vital inputs during response • Collate information and warn appropriate Army units • Establish communications of disaster and supplement the civil communication set up if required • Coordinate all military activity required by the civil administration. • Provision of medical care with the help of the medical teams, including treatment at the nearest armed forces hospital. • Transportation of Relief Material • Provision of logistic back-up (aircrafts, helicopters, boats, etc). • Establishment of Relief Camps • Assist in evacuation of people to safe places during the disaster • Installation of temporary bridges, Bunds etc. 	<ul style="list-style-type: none"> • Construction and Repair of Roads and Bridges • Cooperate and coordinate with District authorities. • Facilitate other departments in capacity building in sectors such as road construction, telecommunication, medical facilities and other infrastructural development • Prepare overall report of the department regarding intervention and disseminate to DDMA and other GOs / NGOs/INGOs

7. Education Department

Pre	During	Past
<ul style="list-style-type: none"> • Assign representatives for DDMA, TDMA and participate in meetings • Information sharing regarding capacities and needs of Education department regarding Disaster management • Teachers and students are informed about the disaster prone areas of the district • Teachers and students are informed of their responsibilities to take care of materials and documents to safe places during disaster. • In facilitation and collaboration with Health and environment department preparation of health & environment related curriculum • In collaboration with Civil defense systemize volunteers 	<ul style="list-style-type: none"> • Mobilize the human resources for intervention during disaster. • Inform the schools situated in high risk areas on flood information (flood level) • Arrangements for evacuees to set up relief & temporary shelter camps in educational institutes • Facilitate health department in medical camps, blood donations and provision of medical aid • In coordination with civil defense & community development department assign volunteers for emergency response. 	<ul style="list-style-type: none"> • Assessment of damages occurred to educational institutes • Provide assistance to teachers & students and other staff who are victimized by disasters (lack of food, shelter, etc.) • Collect information on adverse impacts of flood disaster on health of teachers and students (psychosocial care) • Need assessment of damaged educational institutes • Rehabilitation and reconstruction of affected educational facilities • Facilitation to institutions /NGOs/INGOs which focus on rehabilitation of educational facilities • Capacity building of Education department regarding Disaster management • Prepare overall report of the department regarding intervention and disseminate to DDMA and other GOs / NGOs/INGOs

8. Agriculture Department

Pre	During	Past
<ul style="list-style-type: none"> • Capacity building of Agriculture department regarding Disaster • Provide recommendation on changing/rescheduling of cropping patterns • Create Community Seed Bank at Union Council level • Provide live stock vaccination • Assessment of high prone areas and estimation of possible damage and needs for recovery regarding live stock, crops, irrigation facilities in case of emergency • Mass awareness regarding epidemics and diseases to live stock and crops • Regular surveillance of rivers, canals, barrages and head works, other water courses which are most likely to be in flood. • Close coordination with Meteorology department & media, especially during monsoon 	<ul style="list-style-type: none"> • Close & regular coordination with nominated staff of DEOC • Immediate transfer of current situation to DDMA and media to be spread for mass awareness • Facilitate other departments to set up relief camps, temporary offices in canal rest houses and other buildings as per need. • Vaccination of live stock 	<ul style="list-style-type: none"> • Facilitation to institutions / NGOs/INGOs which focus on rehabilitation activities. • Capacity building of Agriculture department regarding Disaster • Prepare report on damages and needs submit to DDMA • Upgrade Community Seed Bank (CSB) • Mass awareness regarding epidemics and diseases to live stock and crops • Repair and rehabilitation of canals, barrages and head works, other water courses which damaged during flood. • Close coordination with Meteorology department & media, especially during monsoon • Timely compensation to affected farmers • Vaccination of live stock • Prepare overall report of the department regarding intervention and disseminate to DDMA and other GOs / NGOs/INGOs

9. Irrigation Department

Pre	During	Past
<ul style="list-style-type: none"> • Monitor water level • Collect information on water level prepare equipment (pumping machines) to irrigate crops field where water is scarce • Dig canals to irrigate from reservoirs to dry areas • Request the local authorities to share information on damaged irrigation • Make a plan for disposal of solid waste of the industries • In facilitation of health department ensure treatment and disposal of urban, industrial and hospital waste 	<ul style="list-style-type: none"> • Respond to specific water level and report to other line departments • Provide pumping machines to pump water out from public places. • Cooperate with other line departments, NGOs. • Check irrigation systems when water recedes. 	<ul style="list-style-type: none"> • Conducted assessment of damage and needs and report to DDMA • Damage assessment of infrastructure and irrigation systems. • Restore and repair damaged irrigation systems. • Construct newly approved irrigation systems and prepare plan for the future. • In collaboration with Health& environment department conduct impact assessment and monitoring to inspect treatment and disposal of industrial, urban waste and hospital waste • Prepare overall report of the department regarding intervention and disseminate to DDMA and other GOs / NGOs/INGOs

10. Planning & Finance Department

Pre	During	Past
<ul style="list-style-type: none"> • Regular coordination with DDMA • Get statistical data regarding possible damage and recovery needs from other departments such as Health, education, social welfare, agriculture. • Plan and identify potential resources • Facilitate other departments in planning 	<ul style="list-style-type: none"> • Prepare materials and equipment for emergency response. • Responsible team distributes fuel to the affected areas 	<ul style="list-style-type: none"> • Get statistical data regarding actual damage and recovery needs from other departments such as Health, education, social welfare, agriculture. • Plan and identify potential resources • Facilitate other departments in planning and execution of rehabilitation in cost effective manner. • Coordinate with all line Departments.

11. Environment Department

Pre	During	Past
<ul style="list-style-type: none"> • In coordination with health department conduct assessment of environment hazard and areas, population, infrastructure prone to environment hazards • Facilitate and coordinate water management and health department regarding treatment and disposal of industrial, urban and hospital waste • Mass awareness programs regarding healthy environment • Linkages with GOs/NGOs/INGOs which focus on environment issues • Inspection and checking of practices of environment related legislation by industries and departments and enforce penalties in case of violation 	<ul style="list-style-type: none"> • Timely acquisition of information regarding abnormal weather conditions from meteorology department and media and passing on this information to concerned departments • Monitor closely effects of disaster on environment 	<ul style="list-style-type: none"> • In collaboration with Health& water management department conduct impact assessment and monitoring to inspect treatment and disposal of industrial, urban waste and hospital waste • Conduct impact assessment of disaster's effects on population and environment to assess future ecological threats and challenges • Facilitate NGOs /INGOs regarding initiating eco friendly initiatives • Suggest poverty reduction strategies through sustainable environment initiatives

12. Meteorology Department

Pre	During	Past
<ul style="list-style-type: none"> • Update and upgrade forecast equipment • Timely and authentic forecast of rains, windstorms etc. • Timely transfer of information regarding abnormal weather conditions to media and other concerned departments 	<ul style="list-style-type: none"> • Timely and authentic forecast of rains, windstorms etc. • Timely transfer of information regarding abnormal weather conditions to media and other concerned departments such as environment, agriculture & irrigation, civil defense, police and army 	<ul style="list-style-type: none"> • In coordination with environment department conduct study of factors which cause abnormal weather changes • Evaluate gaps in information sharing

13. Media

Pre	During	Past
<ul style="list-style-type: none"> • Trainings for disaster reporting • Publish, broadcast /telecast plans of DDMA regarding disaster management and also voice public opinion • Close coordination with meteorology, irrigation, civil defense departments for announcing warnings and updates • Awareness raising in collaboration with departments such as health, education, environment 	<ul style="list-style-type: none"> • Close coordination with meteorology, irrigation, civil defense departments for announcing warnings and updates • Awareness raising in collaboration with departments such as health, education, environment and information. • Publish, broadcast /telecast programs of safety measures during disaster 	<ul style="list-style-type: none"> • Awareness raising in collaboration with departments such as health, education, environment • Publish, broadcast /telecast programs highlighting strengths, weaknesses and scams in emergency response.

14. NGOs / INGOs

Pre	During	Past
<ul style="list-style-type: none"> • Facilitate DDMA member departments for capacity building regarding Disaster management • Capacity building of community groups regarding disaster preparedness and management • Linkages with concerned departments and institutions for providing technical and financial resources regarding diverse sectors related to disaster • Resource mobilization at local and international level 	<ul style="list-style-type: none"> • Collaborate and facilitate in relief operations • Incorporate local and international expertise in emergency response • Establishment of temporary shelters & camps • Facilitation in overall disaster response in collaboration with concerned departments (e.g. for medical aid with health department and so on) • Updates and alerts to local & international partners • Utilization of existing resources and further mobilization at local and international level 	<ul style="list-style-type: none"> • Collaborate and facilitate in rehabilitation activities • Incorporate local and international expertise in rehabilitation activities • Facilitation in overall rehabilitation in collaboration with concerned departments (e.g. for medical aid with health department and so on) • Impact assessment studies and sharing findings with DDMA and local and international partners. • Preparation of overall reports and share with DDMA and other partners. • Conduct audit • Linkages with partners for sustainable resources mobilization





Standard Operating Procedures (SOPs)

6

The plan intends to provide direction and guidelines to all district stakeholders. The plan is primarily for use by all departments in the District Government, especially by those with roles and responsibilities outlined herein and also by government staff at the district, tehsil, union council and village levels. This plan facilitates the provincial and national government, UN agencies, donors, non-government organizations and philanthropic individuals and companies understand how they can support in disaster preparedness, response and mitigation in District Gwadar. The coordination mechanism during the disaster event in district will be established by the head of DDMA.

6.1 DDMA

DDMA is responsible for coordinating all components of the Disaster Risk Management Systems for the District. The components consist of activities related to mitigation, preparedness, response, recovery and rehabilitation. There can be some of following policy rules for all the departments constitute DDMA:

- Clarity of vision
- Commitment
- Close Coordination
- Concrete Collaboration
- Timely action
- Timely reporting
- Total Transparency
- Regular Monitoring
- Objectives, activities and outcome based pre, during and post evaluation
- Sharing and learning
- Sustainability

6.2 District Emergency Operations Center (DEOC)

In the event of a disaster / emergency , the District Emergency Operations Center (DEOC) will take the operational lead for all government district departments. The District Disaster Officer (probably the civil defense officer) manages the DEOC and is responsible for ensuring that the following activities are always undertaken:

- Advise on the disaster situation.
- Coordinate with the concerned departments and Army.
- Set up Relief Centers (following the SOP for Relief by Flood Controller).
- Supervision and Monitoring of disaster management and relief activities.
- Coordinate the activities of DDMA members departments.
- Send out Damage and Needs Assessment Teams.
- Enlist services of laboratories and expert institutions for specialized services through the Health Department as and when required.

- Issue advisories on the Disaster Situation immediately and in appropriate time phases thereafter to the DMA and the general public.
- Operate a Public Information Display Area for immediate access to information by the public and media regarding the disaster and the current situation.
- Requisition of accommodation, structure, vehicles and equipments for relief.
- Setting up of transit camps and arranging for food distribution.
- Arrangements for dry rations and family kits for cooking.
- Organize and coordinate clearance of debris.
- Temporary Repairs to damaged infrastructure.
 - Water
 - Telecommunication
 - Public buildings
 - Electricity

- Set-up an information centre to organize sharing of information with the media and the public.
- Generate and provide all information contained in the Risk and Vulnerability Assessment document to all the other control rooms and in special circumstances communicate the disaster prone sites to all control rooms.
- Monitor disaster warning or disaster occurrence and communicate the same to the Tehsils, Union Councils , and the Villages for better preparedness and effective response in coordination with and on the advise of the following agencies :
 - DDMA
 - Meteorology Department (Heavy Rains / wind or storms)
 - Irrigation Department (Floods)
 - Civil Defense, Police (Road Accidents, Riots, Bomb threats/blast, Fires, House Crashes)
 - Health Department (Epidemics and Food Poisoning)

- Coordinate with civil society focusing INGOs/NGOs and Media.
- Coordinate with other control rooms.
- Manage external relief coming into the district.

The DEOC will be responsible for carrying out emergency preparedness and emergency management functions at a strategic level in an emergency situation, and ensuring the continuity of operations.

6.3 Mechanism of Warnings

Department such as meteorology, agriculture & irrigation, health and environment would establish and upgrade early warning system and pass on warnings of a disasters occurrence directly to media and to the head of DDMA who will direct the most needed department (as per nature of disaster) to take immediate steps. Side by side he will call emergency meeting of all the members of DDMA. Following are some of the actions to be taken:

- As per nature of disaster nomination of lead agency.
- Analysis of the disaster and the level of response to be taken
- Accumulation and disposal of required resources

6.4 Warning & Plan Information Distribution

DDMA will ensure the implementation of this plan and all public warnings will be distributed through the secretariat upon recommendation of the Head of the authority. Appropriate media channels will be used to distribute the warning to the general public and concerned authorities for appropriate standby preparedness and response measures.

6.5 Public Information

The distribution to the public of contacts or telephone numbers for disaster information will be the responsibility of and the discretion of the DDMA. Public information is that information which is passed on to the public prior to, during, and after a disaster, such as warnings and directions for evacuations and service access to affected populations. The District Disaster Management Authority has the responsibility for the dissemination to the public of disaster risk management information. The focal person who will be designated by the authority to arrange the media briefings and interviews with key personnel and media channels for proper dissemination of the information concerning disaster situation in order to reduce the risks.

6.6 Reporting

All responsible departments and organizations are to submit regular updated situation reports to the DEOC situated in the DDMA. The communication officer will collate the reports received and circulate regular update and situation reports to all concerned stakeholders.

6.7 Requests for Assistance

DDMA will develop the contingency plan to meet any disaster situation. As of any disaster event the requests for any assistance from outside the district will be made by the District Nazim or District Coordination Officer to the Provincial Disaster Management Authority. The Tehsil Administration and Union Council bodies will make request to the District Authorities for the possible involvement of any concerned department to meet the disaster situation.

However, 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.

6.8 Plan Dissemination through Community Education

In addition to dissemination of literature related to the District Disaster the DDMA will disseminate the District Disaster Management Plan (DDMP) at the following levels;

- District government departments, and to the state level officials.
- To the Tehsil, Union Council and Village leadership.
- Through mass media to the general public in the district.
- Through existing CBOs and collaborating NGOs.

6.9 Community Involvement and Participation

The Gwadar District EOC and NGOs at the disaster area should ensure maximum community participation in all stages of operation in order to maintain community morale and confidence maximize the use of local resources and promote a faster recovery. Disaster management situations offer a wide range of choice and demands that requires immediate decision making. The participation of communities and their representatives would reduce the pressures on the field agencies with regard to the choice and uncertainties of community's response to the decisions.

The representatives of CCBs at local level may be involved in different activities of emergency response of relief and rehabilitation activities as this local unit does exist in all Union Councils as per the LGO 2001.

6.10 Organizing the Drills

In pre disaster situation DDMA will plan and carry out with other stakeholders' exercises or drills aiming at the following:

- Assess the procedures in this document.
- Assess the potentials and areas of improvement

- Agencies and departments should also conduct drills based on the hazard scenarios and areas of competence.
- The DDMA will ensure that disaster response drills are conducted by the other Department on a regular basis, especially in the disaster prone areas to maintain the readiness of communities and departments, as regards operational procedures, personnel and equipment and orderly response.

There should be at least two drills in a year. Lessons learnt from the drills and those from the previous and ongoing disaster related incidents should be incorporated in this DRM Plan as appropriate.

Conclusion & References

7

Conclusion

DDRMP has been designed in consultation with the all stakeholders of the district describing Hazard Vulnerability, strategies for disaster response, preparedness, mitigation and recovery initiatives to reduce the risks of the impact of the disaster in the district. Each department and sectoral line ministries should take the responsibility of developing Contingency and Recovery Plans based on their areas of competence and mandate in collaboration with other stakeholders. This plan is a guiding tool which will be reviewed every year by all stakeholders' suggestion to make it more district specified for minimizing the risks of the natural and man made disaster situation.

References (Consultations and Meetings)

District Nazim
Deputy District Nazim
District Coordination Officer
Planning and Finance Department
Revenue Department
Health Department
Education Department
Community Development Department
Forest Department
Livestock Department
Pakistan Army/Frontier Core
Pakistan Coast Guards
District Police Office
Gwadar Development Authority
Gwadar Port Authority
Balochistan Coastal Development Authority
Pakistan Wetlands Program-PWP
International Union for Conservation of Nature- IUCN
Rural Community Development Council-RCDC
National Commission for Human Development-NCHD
National Rural Support Program-NRSP
Balochistan Mahigeer Network
Gwadar Meid Itehad
Gwadar Education Welfare Society

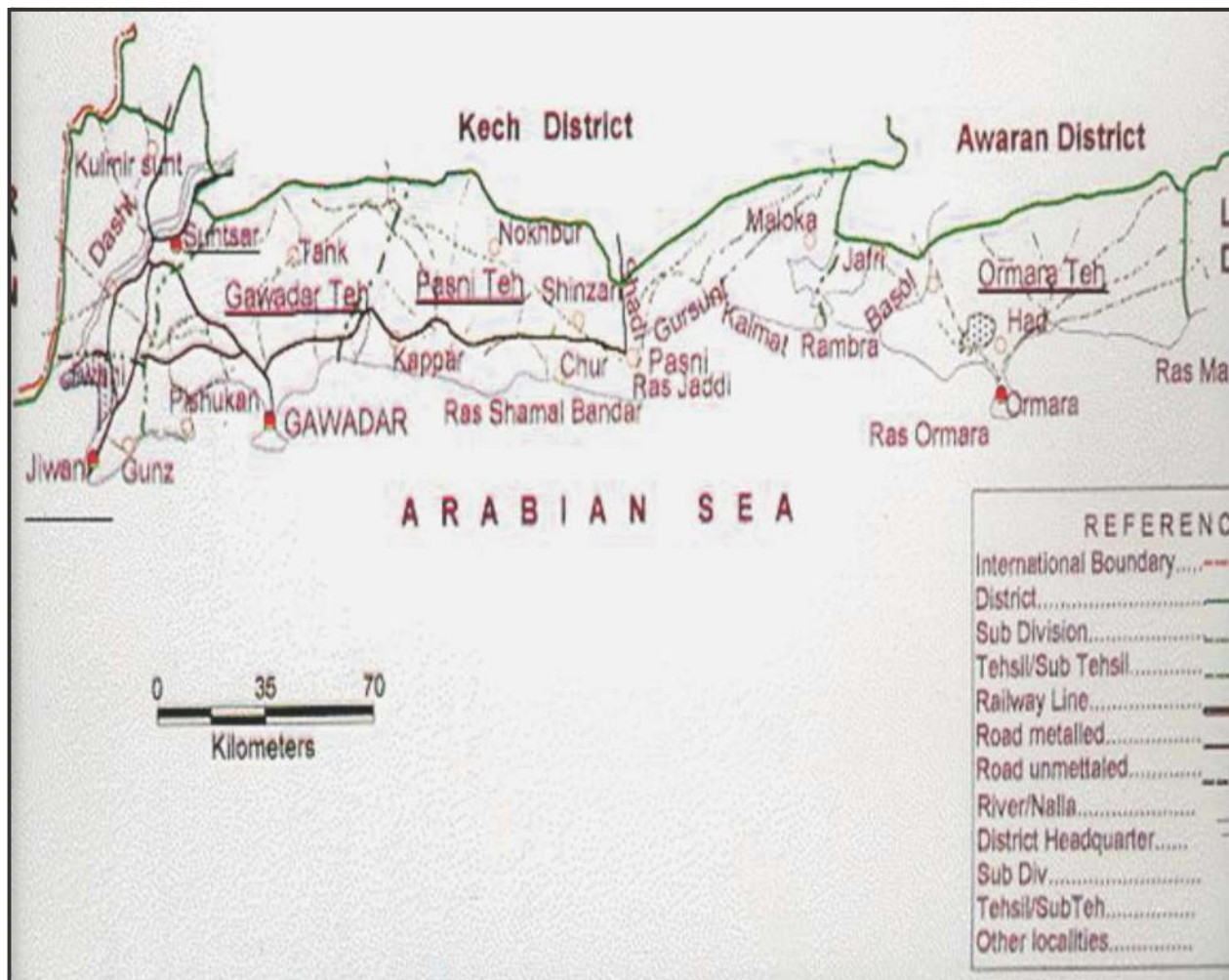
Documents and Reports

National Disaster Risk Management Framework of Pakistan, NDMA
National Disaster Management Ordinance, 2006
Assessment Reports of Pakistan Wetlands Program-PWP
Assessment Reports of Rural Community Development Council-RCDC
Situational Analysis Study (SAS) of Gwadar District, IUCN
District Census Reports of Gwadar
Contingency Plan of Gwadar District
Cyclone Assessment Report of Pakistan Coast Guards
Natural Calamity Act 1946

ANNEXURE



Map of Gwadar District



Profile of Gwadar

(1) Origin of the Name

Gwadar is the combination of two Balochi words, "Gwa" meaning 'information', while "Dar" means 'door/gate'. People in the olden days used to visit Gwadar to keep themselves abreast of happenings in different parts of the region. Hence the name Gwadar came into existence (Gate of Information).

(2) Historical Background

In 1783, an Omani Prince named Saeed Sultan appeared before the then Khan-of-Kalat Mir Naseer Khan Nuri, to seek refuge. The Prince had been forced to leave his native country (Oman) because of a dispute with his brother Hammad. Mir Naseer Khan granted the Omani Prince not only refuge but as a gesture of Baloch hospitality, the port of Gwadar was gifted to him for his sustenance. Hammad, the ruler of Oman, died in 1793. This enabled Prince Saeed to return and assume the ruler-ship of his Country. He however, retained possession of Gwadar Port and did not return it to the Khan-of-Kalat. Government of Pakistan purchased Gwadar Port for an amount of Rs. 140.8 millions from Oman and integrated it with Pakistan on 8th September 1958.

(3) Salient Features

1. District Gwadar was established on 01 Jul 1977.
2. It is located in the North of Arabian Sea. The coast line extends up to 600 kms.
3. Total area of the district is 15216 sq kms, while the population, according to 1998 Census is 1, 85,498 persons, including 45000 of Gwadar city only. However, due to the development of Gwadar Port, the population has now risen to over 100,000 persons (Gwadar city only).

(4) Maj Tribes of the Area

1. Kalmati
2. Bazinjo
3. Rind
4. Gichki
5. Dashti
6. Askani

(5) Faith and Tribes

The main language of the area is Balochi. There are two dominating Faiths in the area i.e. Muslims & Zikris.

(6) Power Supply

Makran is connected with the Iranian Thermal Power Station via Mand. Power Generators are located in Jiwani and Pishukan.

(7) Cival Administration

Responsibility to maintain law and order is assigned to police. The area under their jurisdiction is about 600 kms. The total strength of the police is 700 Commanded by a District Police Officer (DPO). Overall law and order situation in Gwadar district is satisfactory.

(8) Tehsils

Gwadar has four Tehsils:-

- (1) Gwadar
- (2) Jiwani
- (3) Pasni
- (4) Ormara

(9) Gwadar is surrounded by Turbat in North Awaran Lasbela in East, Arabian Sea in South, and Iran in the West. The area has multi-natural characteristics, having plains, sandy patches and mountain ranges. The lay of the ground flows from North to South.

(10) Education

There are 213 primary and 26 high schools, along with one Degree College.

(11) Health Facilities

District has only one DHQ with 8 doctors, including a lady doctor and a dental surgeon.

Source: annex 2 is shared by the Coast Guards Office in Gwadar

Contingency Plan of Gwadar District

1. Preliminary Introduction

The History of Mankind reveals that the Humans face, almost two types of Disasters

i, Manmade Disaster ii, Natural Disaster

- I. Man Made Disaster include Wars, Bomb blasts, Atomic Explosions, Floods, Fires.....Collapse of Buildings, Viral / Epidemic and Suicide Incidents that form 98 of total Disasters these Disasters are caused due to human negligence and Ignorance.
- ii Natural Disasters includes Heavy Rains, Earthquakes, Tsunamis, Cyclones, Thunder storms etc. These Disasters forms two percent of total and are beyond the capacity and powers of Mankind but yet these can be reduced to one percent by better planning, awareness, timely information and scientific research, never the les, the Natural Disasters so far faced, by the Mankind have proved to be less destructive than the Man made Disasters however the effects of the Natural disasters can be reduced with the better management and future planning.

2. Introduction to the Plan

Preparation and implementation of the Earthquake Relief Plan for District Gwadar is to lay out Standard Operating Procedure to be taken / treated as By Laws of the District Government Gwadar, and shall provide maximum protection and relief to the masses. The plan shall be regularized and approved by the District Assembly Gwadar in its forth coming session or to be especially convened for the purpose. The plan mainly consist on the three phases/stages I,e Preparatory stage, Operational stage and Rehabilitation stage.

Since the major towns of Gwadar District are located at seismic faults / folds, had already stood to earth quake of 8.1 intensity at Richer scale in 1945 however due to less population of hardly 6000 individuals at Gwadar town received less damages and casualties whereas, Pasni and Ormara received more damage and particularly Pasni with the estimated population of 5000 individuals sustained more damages. Although the waves around Pasni were three to five meter high and swept away the light houses made up of pieces from Bamboo and date trees branches. The semisolid / solid rocks run along the coastal belt for a distance of approximately 400 Km and extend to east west, the major towns of the District, Gwadar Pasni, Jiwani and Ormara, are located at this fold and channel of high and low rocks, therefore the earthquake plan for District Gwadar needs extra ordinary concentration to be employed on each phase / stage.

3. Aims and Objectives

The plan is aimed to combine and collaborate all possible efforts to utilize all available sources at all levels j.e District, Provincial and Federal level to save the lives and properties of all Individuals / Institutions within the jurisdictions of District Gwadar, in particular with regard to its future expansion as an International Trade Centre and Sea port. The objectives of the plan are as under:-

- Construction and establishment of Disasters Management and Relief Complex at Gwadar, with location at the centre of future city according to the Master Plan to be adopted by the GDA.
- To establish comprehensive information and awareness system of underground Seismic changes through procurement and installation of instrument / devices for warning and pre-information against any Earthquake and tsunami at Koh-e-batil or Koh-e-Mehdi Gwadar by the Geological Department Government of Pakistan.

- To reduce the effects of the Earthquake by adopting such mean and measures specified in the plan.
- To involve and utilize all resources of District Government, i.e Man power Machinery, Equipments and Vehicles, during the Disasters to reduce the miseries of affectees.
- To arrange funds and resources for effective implementation of the stages of the plan through local Provincial and Federal Government the foreign donors/NGOs will also be requested for funding s.
- To link the Vision and Experience with regard to Relief Operation for the affectees of Earthquake of 8th Oct 05 which left devastating effects by shaking the Northern parts of the Country and Kashmir.
- To preplan line of action with regard to assignment of responsibilities by the different department at all level.
- Requisitioning of Federal Government Services i.e Pak Army, Navy and of commodities and POL throughout the district during disasters Air force to help in relief activities.
- To ensure the service abilities of essential services and continue supply.

4. Preparatory and Preventive Measures

The preparatory stage of the plan is most important as regard to its establishment of information network as an preventive measures, it also demands continue and sincere efforts to be put in by all concerned Departments negligence and ignorance at this stage shall have devastating consequences the proper and timely implementation of the first stage shall automatically reduce the intensity of later both the stages. The prevention measures Described in this plan are to be implemented/executed by all concerned as soon as possible.

5. Establishment of District Crisis/Disaster Management Cell

The preliminary District Disasters Management cell has already been constituted under the Chairmanship of the District coordination Officer Gwadar, the cell has already completed the survey of all public buildings in Gwadar District and the report has been submitted to the Home Department Government of Balochistan.

The permanent District Crisis Management Cell Will be established after creation of post and posting of District Crisis Management/District Officer civil Defense B= 17 under Civil Defense set up at District level in consistence with devolution plan under section 14 schedule 1A of Balochistan local Government Ordinance 2001 the above post along with staff has already been approved under the Group of offices of District Coordination Officers vide services and General Administration Government of Balochistan, letter no SO-2;7/4/2003 dated, nil June, 2003 under Subject; Schedule of Establishment District Governments.

The permanent District Disasters / Crisis Management Cell shall comprise on the following Heads of department/Officers of the District.

1. District Coordination Officer Gwadar Chairman
2. Executive District Officer, Rev Gwadar Member
3. Executive District Officer, C and W Gwadar Member
4. Executive District Officer, Health Gwadar Member
5. Executive District Officer, PHE, Gwadar Member
6. T.M.O., T,M,A Gwadar Member
7. District Crisis Management/Gwadar Member D.O, Civil Defense

6. Function and Responsibilities of the Cell

The District Disasters / Crisis Management Cell shall perform the following functions through the District Crisis Management Officer under the administrative control of DCO / Chairman Cell.

1. To prepare Plans Schemes, policies and standard operating procedures on Disasters management and ensure its implementation with in district.
2. To manage district control room/information centre, for dissemination of correct and timely information/warning, regarding relocation of people exposed to any emergency situation crisis etc.
3. To develop coordination amongst all Govt. Organization for collective efforts to be put in during any Disastrous situation.
4. To issue guidelines to all the departments regarding preventive and protective measures, in the districts.
5. To fix the priority for implementation of politics and plans on natural disaster and man made disaster in the district.
6. To create awareness among the masses though media, training, seminars, lectures and publications, as to combat and face the emergencies.
7. To arrange training for the officers/officials of all concerned departments, including volunteers in field of fire, rescue, first aid and rehabilitation.
8. To procure/manage rescue and relief equipment through Provincial, Federal and foreign agencies and maintain the record regarding its utilization in the district.
9. To conduct/arrange survey through Provincial, Federal Governments and NGOs regarding seismic zones its categorization and sensitivity.
10. Ensure strict implementation of the building code within the district limits and to assign responsibilities to the concerned department accordingly.
11. Enroll sufficient number of volunteers amongst notable's skilled. Social workers and to maintain their record of addresses for utilization of their services during disaster.
12. To arrange emergency funds through Provincial Federal Government. Donor agencies and levying of taxes within the district.
13. To arrange and maintain the emergency relief and rehabilitation stocks of food, bedding, Tents, water tanks and medicines.
14. To perform any other duty functions and responsibilities to be assigned by the Government from time to time.

7. Construction/establishment of District Crisis Management/relief Complex

In the light of the future extension of Gwadar city as an international seaport and trade center and where the population would rapidly increase due to trade activities and industrialization around the City and as a result of Expansion, the future city would accommodate approximately five million souls in the District. Hence it is proposed to construct an earthquake proof Crisis Management/Relief Complex on five acres of land in center of city, so planed, it would approximately costs Rs, 50 millions.

The complex shall accommodate all relief stores, machinery/equipment shades garages, offices residential flats and operational control room and conference hall under one shade.

The PCI of the project would be prepared soon after approval of the same, by the Government of Balochistan.

8. Establishment of Sesmic Information Center

In the light of the importance of the Gwadar city to its future perspective it would be more appropriate to establish seismic information center to be constructed at the kohe-batil or kohe-mehdi through the Geological Department Government of Pakistan it should have latest instruments to measure the movements of earth crust and consequently indicate any movement of earth on surface. The instrument indicating any movement would be connected the high pitch sirens. These sirens would blow automatically through the lever connected with seismic warnings sensors. These arrangements would specially prevent fishermen fishing in the sea up to the

limits of five nautical miles, from the expected disaster in shape of tsunami and cyclone. The fishermen will be informed about the functioning of seismic warning center and the pitch of the siren, through lectures and media advertisement, in case there is any danger of any cyclone or tsunami the fishermen would soon rush to the sea shore to protect their lives.

The Government of Pakistan would be requested to establish same type of seismic warning centers each at Pasni, Ormara and Jiwani as to protect the fishermen from any disaster.

9. Establishment of District Emergency Control Room

The interim emergency control room will be established in the office of the EDO, Revenue Gwadar, as an emergency / disaster struck the any area of the district. Telephone No. 0864-211352 will be used round the clock. The control room will be operative from 1400 hrs to 800 hrs in two shifts. The EDO Revenue will be responsible to depute one officer preferably Tehsildar/Naib Tehsildar along with one operator / clerk for each shift to receive information from Tehsil level control room or other reliable sources and to disseminate to the Chairman Crisis Management Cell accordingly. TMOs and Tehsildar will establish control room at each Tehsil with telephone numbers all the control rooms so established will collect information from all reliable sources local representative and notables of the areas through wireless sets local telephone and other messenger means.

Any information regarding earth quake / intensity and losses if any would be transmitted to the district control room and the district control room will further disseminate the same to the concerned departments of the district after seeking instruction from the chairman. DCMC.

In case the, intensity of the disaster is high and more casualties are expected the provincial crisis management cell will be informed and requested for any sort of help the district control room will have record of all information along with action taken on each report and level of action will also be recorded in separate column. The entry for nature of assistance requested and provision of the same by the individual/department will also be recorded in the register.

10. Awareness of Preventive Measures

Although the Natural Disasters like Earthquake are beyond the powers of Human, but yet its devastating effects can be reduced, to the extent of fifty percent of the actual while taking in consideration the earthquake Disasters of 8th October, 2005, it reveals that most of the casualties were caused due to human negligence and ignorance for example, whole of the government infrastructure / all government buildings I,e Schools, Colleges, Hospitals, all offices.

Including defense installations and secretariat are completely destroyed due to severe shocks, in fact the disaster left many questions to answer, many lessons to learn and many proofs of human negligence, ignorance and corruptions for those, left alive.

If the Building code would have been strictly applied during constructions of schools only, we could have saved the lives of more than twenty five thousand students so the human contributed more to consequences of earthquake due to negligence. Similarly, negligence from responsibilities by certain departments added more to the Disasters.

From the above experience, all out efforts will be made by the District Crisis Management Cell Gwadar to create awareness of preventive measures and to reduce chances of ignorance and negligence, particularly in construction of Earthquake proof public buildings in Gwadar district.

11. Procurement of Rescue Equipments and Vehicles

The District Government Gwadar will procure the following rescue equipment and special vehicles to be

employed for rescue operation during an earthquake Disasters, through Provincial or Federal Government since the time factor is an important contributor so all the rescue machinery shall be kept ready on short notice in case of shortage, all private and government resources will be Requisitioned under the emergency laws.

1.	Mobile crane 10 ton	two
2.	Rescue van	one
3.	Mobile Generator 1000KV	one
4.	Extension ladder 50 ft	five
5.	Safety helmet	100
6.	Safety gloves	200
7.	Fire vehicle	four
8.	Respirator all type	50
9.	Pullies all types	20
10.	Flood lights	20
11.	Manila rope 2 inch	500ft
12.	Jack 20ton	20
13.	Slings three lines	10
14.	Wire rope ¾	50ft
15.	Life jackets	50
16.	Diver kit complete	10

12. Operational Stage

In case any information regarding occurrence of earthquake and any damage to the buildings or collapse is received in the District control room the duty officer immediately convey it to chairman district crisis management cell and district crisis management officer. The rescue parties shall move to the area under the supervision of DCMO Gwadar, along with ambulances, rescue vans and special required equipments, to the effected areas. The further decision for provision of shelters and life necessities will be taken in the emergency meeting of the District management cell.

All the departments at the district level will be immediately involved in the operation activities accordingly to intensity of the disaster and its consequences.

The chairman DCMC Gwadar will involve all the volunteers and all resources of men and material will be utilized to save the lives of the affectees. If required, the services of federal government agencies / armed forces will be requested to share the operational work/rescue and restoration process. The services of NGOs and welfare organization will also be requested for active participation in the relief work.

The QESCO head, and DE phone Gwadar will be requested to immediately restore their services in the public, if disrupted due to the effects of the disaster.

The EDO Health Gwadar will declare emergency in the hospital within district and all the medical staff shall immediately report for duties.

Medical teams along with stature will also move to the sites of incidents and affectees if any, held under the debris shall be carefully recovered and provided first aid if needed, further more the serious casualties will be transferred to the hospitals of the district if the consequences are more devastating the casualties/ serious injured will be transferred to the hospital through the helicopters.

In case of tall, in numbers of deaths, the TMOs will arrange required cloth for kaffan to be provided to the heirs of deceased, all sort of assistant will be extended by the administration.

13. Rehabilitation, Compensation and Reconstruction

In light of the consequences of the disaster and to bring the life to normal routine, a survey of the losses will be undertaken to assess the cost of the properties destroyed due to disaster and individual concerned will be paid compensation accordingly. So that the affectees may be able to reconstruct/repair their houses, the compensation for each deceased will also be paid to their legal heirs, further more the continue efforts for construction of earth quake proof houses / buildings will be employed to reduce the consequences of such nature disaster for coming generation.

14. Arrangements of Emergency Relief Fund

Due to length of the area and scattered population the rehabilitation and relief of the affectees required heavy amount of fund s for temporary shelter, rescue relocation, foods, medicines, drinking water, necessities of life and compensation of losses. Further more the funds may be required for permanent establishment of crisis management complex at Gwadar. The following proposal for generation of funds for the subject purpose, are suggested:-

1. Two percent allocation from the total district budget.
2. Levying of taxes on estate business and on the public transport flying the city routes, and additional tax on mutation of lands duly approved by the district assembly.
3. Grants in aid from provincial, federal governments and donor agencies.
4. Grant in aid from international organizations and institution for purchase of equipments.

District Coordination Officer, Chairman
District Crisis Management Cell
Gwadar

15. Inventory of resources available with stakeholders for disaster response

15.1 Statistics of Public Health Facilities

Type of Facility	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-2003
Hospitals	1	1	1	1	1	1	2
RHCs	3	3	3	3	3	3	3
BHUs	15	16	16	16	17	17	18
Dispensaries	11	9	10	17	22	22	11
Sub Health Centers	0	0	0	0	0	0	0
MCH Centers	4	3	3	3	3	3	3
TB Clinic	1	1	1	1	1	1	1
School Health Services	0	0	0	1	1	1	1
Mobile dispensary	NA	NA	NA	NA	NA	0	1
Leprosy Clinic	NA	NA	NA	NA	NA	NA	3
Other	0	0	1	1	1	1	NR
Total	35	33	35	43	49	49	43

- Health Units in Gwadar District
 - DHQ 1
 - RHC 3
 - BHU 23
 - CD 15
- Tehsil Gwadar
(DHQ Hospital Gwadar, BHU Shadoo Band Gwadar, BHU Ghatti door, BHU Surbander, BHU Chib Kalmati, BHU Chib Rekani, BHU Gurandani, BHU Palliri, BHU Pishkan.
- Tehsil Jiwani
(RHC Jiwani, BHU Ganz, BHU Mojo, BHU Gabd, BHU Kalatoo, BHU Suntser, BHU Zehran, CD Panwan, CD Doomb, CD Saisadi, CD Sui, CD Puthan.
- Tehsil Pasni
(RHC Pasni, BHU Nalaint, BHU Kallag, BHU Banbelar, BHU Kocho, BHU Haribelar, BHU Bal Haddocki, BHU Kalmat, CD Babber Shoor, CD Rake-Pusht, CD Kapper,
- Tehsil Ormara
(RHC Ormara, BHU Basool, CD Tussuk(Sayedabad).
- Officer/Technical staff

Name of Post	Sanctioned	Filled	Vacant
EDO Health	1	1	0
Deputy DHO	2	2	0
Assistant DHO	0	0	0
Chief Medical Officer	1	1	0
Senior Medical Officer	5	5	0
Medical Officer	31	12	19
Lady Medical Officer	6	3	3
Dental Surgeon.	3	0	3
Drug Inspector	1	1	0
Pharmacist	1	0	1
Malaria Superintendent	1	1	0
Office Assistant	1	0	1
D.S.V.	1	1	0
Male Nurse.	1	0	1
Computer Operator	1	0	1
Asstt: Insp: Health Services.	1	1	0
X-Ray Assistant	4	4	0
Medical Technician	16	11	5
Female Medical Technician.	9	0	9
Lady Health Visitor	13	12	1
Asstt: Malaria Superintendent.	1	0	1
Dispenser/ Compounder	42	39	3
Health Auxiliary	5	5	0
O.T.A.	2	2	0
Senior Clerk	1	1	0
Junior Clerk.	1	1	0
Vaccinator	35	35	0
Malaria Supervisor.	7	7	0
Microscopist.	1	1	0
Laboratory Assistant.	4	4	0
Nursing Orderly.	48	45	3
Driver	8	8	0
Dai	41	41	0

- Lady Health Workers (LHWs)
 - Total LHW 110
- Transport.
 - Ambulances 4
 - Vehicles 11

Source: The above information regarding the Health Department shared by EDO-Health, Gwadar

15.2 Private hospitals in Gwadar District

Other than the Government provided medical facilities there are two medical centre in the whole of Gwadar District that provide health services and have X-ray, Pathological labs available their details are as follows:

Hospital: Gwadar Medical Centre
 Contact number: 086-4210292
 Address: old dispensary road UC south Gwadar
 Doctor 2 (male),
 Male nurse 2
 Female nurse 2
 Male ward 12 beds
 Female ward 6 bed
 X ray assistant 2
 Lab assistant 1
 X-ray Unit 1
 Pathology Lab 1
 Labor room 1

Hospital: JJ Mirwani Hospital
 Contact number: 086-4210694
 Address: Airport road Baloch ward UC north Gwadar
 Doctor 2 (male),
 Male nurse 2
 Female nurse 0
 Total Beds 15
 X ray cum lab asst 1
 X-ray Unit 1
 Pathology Lab 1

15.3 List of vehicles & machinery available with district Gwadar Administration

Type of Machinery	Umber of Units	Status	Responsible Department
Ambulances	5	Only three in working condition	District Head Quarter Hospital
Buldozers	8	Only three in working condition	Machinery Maintenance Dept
Buldozers	1	In order	Public Health Engineering Dept
Buldozers	1	In order	Communication and Works Dept
Motor Grader	1	In order	Communication and Works Dept

One Edhi ambulance is designated by Edhi foundation for Gwadar District

15.4 Educational Infrastructure

S. No.	School Type	Girls	Boys	Total
1.	Primary Schools	62	137	199
2.	Middle Schools	5	11	16
3.	High Schools	3	12	15
4.	Mosque Schools	0	8	8
Total		70	168	238

Source: The above information regarding the Education Department is shared by EDO-Education, Gwadar

7.5 Contact details of Gwadar District Administration

S. No.	Offices/Designations	Name	Contact Number
1.	District Nazim - Gwadar	Mr. Abdul Ghafoor Kalmati	0864 -210363,364
2.	Deputy District Nazim- Gwadar	Mr. Ghaffar Hoth	0301 - 2243582
3.	District Coordination Officer- Gwadar	Mr. Mohammad Iqbal Nadeem	0864 - 210027
4.	Executive District Officer (EDO) Finance And Planning	Mr. Rehmat Dashti	0864 - 211355
5.	District Officer, Finance and Planning.	Mr. Asghar Ramzan	0864 - 211355
6.	EDO Education	Mr. Rahim Sadig	0864 - 211354
7.	EDO Health	DR. Nazeer Ahmad Baloch	0864 - 211314
8.	EDO Revenue	Dr. Mohammad Aslam Shahi	0864 - 211351
9.	EDO Community Development	Mr. Mohammad Aslam	0864 -211063
10.	EDO Forest	Mr. Abdul Waheed	0864 - 210051
11.	EDO Works and Services	Mr. Mohammad Jan Baloch	0864 - 210056
12.	ADO- Livestock	Dr. Mohammad Iqbal	0334 - 3232586
13.	Director General, Gwadar Development Authority	Mr. Ahmad Baksh Lehri	0864 – 210953, 211775
14.	EDO Public Health Engineering	Mr. Shakeel Ahmad	0864 - 210057, 340
15.	District Police Officer, Gwadar	Capt Asim Khan	0300-9687710

Source: The Contacts have been received from the Planning Department, Gwadar

Preliminary Damage Assessment Report



Yemyin and Gonu Cyclones



Makran Coastal Wetlands Complex

Pakistan Wetlands Programme
House No. 03, Street No. 04, Sector F-7/3, Islamabad.
Tel: 051-2610880-85
Website: <http://www.pakistanwetlands.org>
The Ministry of Environment's Pakistan Wetlands Programme

1. The Pakistan Wetlands Programme

Pakistan Wetlands Programme is an initiative of the Pakistan's Ministry of Environment, being implemented by the World Wide Fund for Nature Pakistan. The programme aims at the creation of an enabling environment at the national level through capacity-building and training, awareness raising and communication and environmental assessments; developing replicable models in the four wetlands eco-regions of the country including the Makran Coastal Wetlands Complex (MCWC), Central Indus Wetlands Complex (CIWC), Salt Range Wetlands Complex (SRWC) and Northern Alpine Wetlands Complex (NAWC).

2. The Makran Coastal Wetlands Complex (MCWC)

The Pakistan Wetlands Programme efforts in this region concentrate on the coastline of Balochistan between the Basol and Dasht Rivers, including the towns of Pasni, Gawadar and Jiwani. The population here depends primarily on fishing and port related activities. They also subsidise their livelihoods with dry land farming. The core zone of the MCWC is heavily dependent on fishing and fishing related livelihood opportunities. Although land holdings are large with 56% of the population having at least 10ha, agriculture is subsidiary to fishing due to harsh topography and lack of irrigation. Any damage to agriculture and fishing industries in the area are potentially devastating to the local community. The recent Gonu and Yemyin Cyclone devastated the local community along the Balochistan Coast with severe damage in Lasbela, Ormara, and Pasni areas. The Pakistan Wetlands Programme conducted the following initial assessment of damages in the sphere of its focus.

3. Summary of Disasters and Damages

Recently two tropical cyclones hit the Makran Coast leaving destruction in their wake. Gonu struck the coast on June 4th and inflicted damage in Sur Bandar area of Gawadar. Another tropical cyclone "Yemyin" (No. 03B) developed over the North Arabian Sea during a strong monsoon weather system struck the Makran Coast and devastated it at many places. The heavy monsoon rains in the area left an estimated 250,000 homeless in Turbat in the Ketch district alone. This attracted attention and damage along the Makran Coast were overlooked. The Pakistan Wetlands Programme made a preliminary rapid assessment of the damage in the Makran Coastal Wetlands Complex, which is the region covered by the programme. According to findings, the cyclones damaged around 100 boats and claimed lives of two fishermen in Kalmat area. About 4 households lost shelter, while 20 households received partial structural damage. Two villages, the Kalmat and Chandi are experiencing outbreaks of disease primarily malaria and skin diseases. Most of the villages are dependent on subsistence agriculture and flood has washed out an estimated 70% of the fields, thus sweeping away their crops, trees and fruit plants. The Flood has severely damaged infrastructure in the area. The primary damage is to the Coastal Highway, which remained cut off for seventeen days. The floods in Shadi Kaur (river) damaged some of the link roads to villages such as Karki.

4. Assessment of Damages in the MCWC

4.1 Kawari Area

Kawari is a cluster of villages of Kawari, Jafari, Showai, and Chai, where a fishing community of about 700 people live. They subsidise their fishing-based livelihood with dry land farming but also grow barley and raise dates. They also encourage the growth of trees of *Acacia Arabica*, which provide fodder for livestock. A good sized *Acacia* tree can sell for Rs.1200/- to Rs.1500/-.



Figure 1: *Acacia* tree bowed down on ground. Photo credit: Ahmad Khan

The local community has about 50 boats, powered by small diesel engines. A boat of the size in

the range of 6 - 6.5 meters costs around Rs. 100,000 and its engine costs around Rs.50,000. The fishermen are able to obtain loans from local fish traders to purchase such boats and equipment. A boat of this type may last for about six to seven years. Their catch is mostly jelly fish in the nearby shallow waters during July to September. A boat fetches income in the range of Rs.100,000 - 200,000 in during the peak season. The fishermen catch shrimp and fish over rest of the nine months and earn Rs.1,000 to 2,000 a day per boat. This fishing community uses nylon nets mostly knotted by them and their children. They have banned use of monofilament nets (plastic nets) in their area. They consider monofilament nets hazardous for their fishing practice.

During the Yemyin storm, a cyclone with heavy rain for sixteen continuous hours hit the Kawari area. It damaged almost all of their boats and either smashed or turned the boats upside down. It flew and dragged some boats as far as 500 - 1,000 meters from their anchorage. Engines from the boats fell into the sea and disappeared. They recovered about ten engines that have lost most of the parts and are non-repairable.



Figure 2: Boat turned upside down at Kawari. Photo credit: Ahmad Khan

Four of their boats are completely destroyed, while the rest are partially damaged. Nets from all of the boats fell into the sea and were lost. The fishermen couldn't recover the nets except fragments of some. They purchase nets or items from market and make nets at home. A net required around 20 kilograms of nylon thread that costs around Rs.6,000/- (Rs.300/- per kg), while other accessories of a net costs around Rs.1,000/- These villages were flooded from the water of Basol River. This destroyed their agricultural crops (melons and corn) and date fruit. The flood and wind damaged about 50 date trees in Chai. The flood and strong wind also uprooted about 30 trees of Acacia, which provide fodder for livestock in the area. The flood also washed away their earthen dams that collect rain water for raising crops in their fields. They construct these earthen dams through tractors.

The cyclone also flew about five huts in Kawari. For shrimp and jelly fish catching, they go to a nearby island of mangroves locally called "Reke Jungle". They have shelters there, which have been washed away by the sea as it swept over the island.

4.2 Makola Village

The Village of Makola also received damage to infrastructure and sources of livelihood. The community consists of 80 households, and also depends on fishing and farming. The floods destroyed five boats and partially damaged a further ten boats. It damaged their crops and fields, and washed away the dams constructed for collection of rain water. The strong winds flew away about ten of their huts.



Figure 3: A recovered boat engine damaged during the storm. Photo credit: Ahmad Khan

4.3 Chandi

Chandi is a village located at the bank of Kalamat Lagoon by the seaside and the local community living in about 30 households is dependent on fishing. One boat drowned in the cyclone, while ten others sustained partial damages. The heavy floods damaged the livelihood. The strong winds and flood water destroyed two houses, while it damaged the boundary wall of one house. It partially damaged structure of six huts. They lost their salt reserves, used in fishing. After the cyclone, mosquitoes invaded the area and local community suffers from malaria and rashes. Some members of the community burn rubber from used tyres in their houses during the night to repel mosquitoes, which itself is a health hazard and may be expected to result in respiratory diseases.



Figure 4: Blew away roof top of a building in Chandi Village.
Photo credit: Ahmad Khan

4.4 Kalamat

The Kalamat is a cluster of villages including Murganijihk, and Gursunt villages of about 250 households, located by the seaside. The community is dependent on fishing but subsidise their livelihood by means of subsistence agriculture. The village is still under flood water and this nurtures mosquitoes, which have become a health hazard. The local community is suffering from malaria and skin rashes. Children are at high risk from these diseases in addition to other water-borne diseases. Floods partially damaged about 20 houses, while boundary wall of one house collapsed. One boat sank in the floods resulting in death of two fishermen. The flood has damaged the access road, washed away the checkdams constructed for collection of rain water and boundary wall of the dispensary, which is the only health facility in the area. Several of the electricity poles fell during the storm.

4.5 Bal

The Bal village was hit by a strong flood accompanied by winds and rain. There are 28 households, and everyone has sustained some level of damage to their huts. The winds destroyed two huts and partially damaged about 14 others. Water has still surrounded most of the houses in Bal.

4.6 Rumbro

This is a small hamlet of four households by the Coastal Highway. The storm damaged two huts, while partially damaged the other two. The local mosque and school sustained partial damage.

4.7 Shadi Kaur

Shadi Kaur (Shadi Stream) has a cluster of villages in its nearby catchment area. These include Karki of about 50 households, Zahreen Kaur of about 70 households, Trati of about 60 households, Kabri of about 15 households, Sindi Paso of about 35 households, Tumpagi of about 30 households, Salach of about 40 households, and Sosee of at least fifteen households. The floods washed away all huts and shelters in Karki Village, leaving the community shelterless. The flood washed their access road and currently people have to take food stuff on their backs and walk/wade around for at least an hour. Heavy flood changed topography of Shaddi Kaur catchment area and local community is facing problem for placing

their residences. The flood washed about 40 households of Zahreen Kaur. Other villages of the cluster have sustained damage equivalent to destroying an estimated 50% of the shelters. These villages depend on subsistence agriculture. They make earthen check dams to collect rain and seasonal flood waters for irrigating their crops. The flood washed all of their check dams.

4.8 Ispetaak

The local community reported loss of one boat and partial damage to three others.

4.9 Sar Dasht

This is a cluster of three villages of Sar Dasht, Dando Junobi, Bazwaja and several small hamlets. They form a community of around 200 households that include 42 households of Sar Dasht, 38 households of Bazwaja, and 32 households of Dando Junobi. The community is dependent on subsistence dry land farming. They collect rain water through check dams that provide moisture to the soil. The flooding of Shadi Kaur spread to this area and destroyed crops and has washed away the checkdams. The community was displaced by floods and about half of them lost their huts/shelters.

4.10 Pasni

In Pasni, flood water from Shadi Kaur entered the Babar Shor area and displaced all of the population from there. It has partially damaged shelters including pucca houses, mud houses and huts of about 50 households. The irrigation and fisheries departments evacuated the local population with motor boats. The local community, has, however, returned to their settlement has yet to repair their shelters. Flood entered the electricity grid station and Zahrain Township. At Juddi, there is a community of about 200 households that extracts salt from sea water. The flood destroyed about 400 salt pans and also the stock they had for marketing. According to information from a salt manufacturer, making a salt pan costs them around Rs.9000/- each.

4.11 Shanikanider

A strong cyclone hit Shanikanider, which is a village of about 40 households to the north-east of Gawadar at a distance of about 20 km. The cyclone damaged boundary walls of seven houses, completely destroyed three huts and blew away roof tops of six huts. It flew roof tops of two houses (pucca). The cyclone hit a truck parked outside one of the houses. The storm took the truck about 50 meters away from where it was parked and resulted in breaking its front wind shield. The wind storm also hit a motorcycle and severely damaged it.

4.12 Sur Bandar

The cyclone Gonu hit the Sur Bandar Village, which is located on the sea side in the east of Gawadar City. A population of around 20,000 lives in about 3500 households. The Gonu cyclone hit this village on June 4th, 2007 and destroyed its southern side. The flood has washed away a school building and at least 40 houses. The sea has been eroding the beach continuously since it struck the village. Several houses are subject to threat of being taken away by the sea due to the continuous erosion of the beach. Currently four houses are partially damaged, which may be taken by the sea soon, particularly when there is no protection against it. In the cyclone, 30 boats were destroyed. The community of this village uses 27' to 30' boats with two engines, each of 13 hp and above. The area between Koh-i-Mehdi and head at village is 12,500'. According to Kouda Hameed Assa Baloch Nazim Union Council Sur Bandar, the irrigation department has prepared a PC-1 for protection wall on this area with an estimate of rupees 160 million and the Chief Minister of Balochistan approved rupees 5 million for

emergency protection work. The emergency protection couldn't be effective due to high tides of summer season in the area.

5. Damage Outside of MCWC

The Yemyin Cyclone also hit the Ormara Beach and inflicted severe damages. The Basol River, at eastern boundary of the MCWC was in high floods and damaged properties. We couldn't make to visit the area primarily due to its location on Basol River that we considered outside of MCWC jurisdiction and secondarily due to time constraints. The Ormara beach is severely damaged. According to an estimate in light of interviews in Pasni and Gawadar about 100 boats are damaged in Ormara and its outskirts. The cyclone has damaged houses (partially or completely, 100 boats and agricultural crops). This needs a detailed assessment.

6. Recommended Actions

There is obviously an urgent need for action, which should include but not be confined to the following interventions:

- Assistance to the fishermen communities to repair their boats and engines;
- Assistance to fishermen communities in procurement of nets;
- Assistance in repairing their houses/huts;
- Assistance in repair and making of check dams;
- Provision of anti malarial medicine, malaria preventive medicine to communities of Chandi and Kalmat;
- Spray in the area to control mosquitoes outbreaks;
- Repair of access roads;
- Rebuild protection bunds;
- Assessment of environmental and ecological changes in the area; and
- Develop an action plan for rehabilitation of the population and their livelihood sources in the long-term.

7. PWP's Immediate Action

With available resources, the PWP provided to the community of Kalmat Resochin tablets as a preventive medicine, and Nevaquin tablets, Fansidar tablets and Malagon syrup for children for treatment of malaria;

The Pakistan Wetlands Programme provided nylon thread to four vulnerable fishermen families from the Kawari area to make nets for their fishing needs. The fishermen will bear cost of other accessories of nets.

8. Required Resources

The monetary resources required to rehabilitate the affected community is estimated at 0.40 million dollars.

9. Limitations

We couldn't make it to the western end of the coast, where Dasht River makes creek with the Arabian Sea. The River was in a high flood with above 400k cusecs flow. This might have inflicted damages on the human as well as wildlife such as population and habitat of marsh crocodile.



Figure 5: In Surbandar area of Gwadar, residential area is at risk from erosion. Photo credit: Ahmad Khan

Contact List of Media Personnel in Gwadar District

Media Organization	Name	Contact
Daily Intekhab/Samma TV	Nasir Rahim	0300-3677661
Daily Intekhab/BBC	Behram Baloch	0300-3939452
GEO TV	Naseer	0322-2354560
Daily Eagle	Noor Mohsin	0300-3851751
President, Press Club-Gwadar	Ismail Sabir	0333-2027701
Gen-Secretary, Press Club Gwadar	Qazi Mohammad Tawar	0322-2296899

Political Representation of the District

Presently the political representation of Gwadar District is as follows:

1.	MNA	Mr Yaqoob Bizenjo
2.	Senators	Mr. Ismail Buledi & Dr Malik
3.	MPA	Mr. Mir Hammal Kalmati
4.	Dist Nazim	Mr. Abdul Ghfoor Kalmati
5.	Teh Nazim (Pasni)	Mr. Charagh Ibrahim
6.	Teh Nazim (Gwadar)	Mr. Majid Sohrabi
7.	Teh Nazim (Jiwani)	Mr. Wahid Bux
8.	Teh Nazim (Ormara)	Mr. Syed Moin Jan

Disaster Risk Management Terms¹

1. Assessment is a participatory process undertaken in phases, and involves on-the-spot collection of information from various sources, its interpretation and analysis.
2. Capacities are knowledge, skills, resources, abilities and strengths present in individuals, households, organizations and the community which enable them to cope, with, withstand, prepare for, prevent, mitigate or recover from a disaster.
3. Community Risk Assessment is a participatory and systemic process carried out by members of the community to identify and analyze disaster risks.
4. Damage, Needs and Capacity Assessment (DNCA) involves a participatory analysis of the disaster event, the damages it caused, the immediate needs and priorities of the affected community, and the remaining capacities people have to cope with the adverse effects.
5. Damage Reporting is the description of what happened and the listing and estimation of physical effects, caused by the natural and/or manmade hazards.
6. Disaster is a serious disruption of the functioning of a society, causing widespread human, material, or environmental losses which exceeds the ability of the affected society to cope using only its own resources.
7. Disaster Risk is the likelihood or probability of individuals, households, and community suffering damage or loss from a hazard.
8. Disaster Risk Management are the activities that contribute to increasing capacities and will lead to reducing immediate and long-term vulnerabilities. DRM covers activities before, during and after a disaster.
9. Disaster Risk Reduction are the policies, strategies, and practices to minimize vulnerabilities and disaster risks throughout a society.
10. Early Warning is the relay to individuals, groups or populations of messages, which provides them with information about the existence of danger and what can be done to prevent, avoid or minimize the danger.
11. Earthquakes are earth vibrations produced when the stability of rock masses under the surface of the earth is disturbed. These disturbances usually occur along existing fault lines or zones of structural weaknesses.
12. Emergency is a situation when a natural and/or manmade hazard occurs that seriously threatens life or result to injuries, damage livelihood and environment and disrupt the flow of important services in an affected area. The severity and magnitude of this situation can still be managed using local resources.

¹ These definitions are adapted from the UN-ISDR and UNDP Glossary of terms

13. Emergency Operation Centre (EOC) is a facility for control of operations and coordination of resources. It is the focus of community emergency response and recovery structure. Operational and administrative procedures from the EOC are usually covered in Standing Operating Procedures (SOPs) that lay down prescribed routine actions to be followed by staff during operations.
14. Evacuation is an organized movement of people from an area of risk to a safer location.
15. Flood is the condition that occurs in water over flows the natural or artificial confines of a stream or body of water, or when run off from heavy rain fall accumulates over low lying areas.
16. Hazard is a phenomena, event, occurrence or human activity which has the potential for causing injury to life or damage to property and the environment. (There are three types of hazards: Natural hazards, Human made hazards and Combination of Natural and Human made. War or armed conflict is human-induced. A Disaster occurs when a hazard strikes of vulnerable community with low capacity).
17. Hazard Assessment is an analysis of past patterns of hazards and threads at the community level combined with an understanding of the underline causes of why hazards become disasters.
18. Public Awareness is the process by which vulnerable populations understand the nature of hazards and the actions they can take to avoid disasters.
19. Relief Delivery is the assistance given to save lives and alleviate suffering in the days and weeks following a disaster.
20. Risk refers to the probability of something happening in the future, which has a negative consequence.
21. Risk Monitoring is the act of local authorities to watch or observe carefully if an emergency/disaster is likely to occur and its possible effects. This is normally done, for instance, during the rainy seasons by observing the level of water in river and other bodies of water and if the increasing level of water may affect population, property and environment. The purpose of the report is to determine if necessary actions should be taken by local and national authorities to reduce risk or possible effects.
22. Vulnerability is a set of prevailing factors, conditions and weaknesses which adversely affects the ability of individuals, households, organizations and the community to prepare for, respond to and recover from disaster.
23. Vulnerability Assessment identifies the elements at risk and why they will be damaged.

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 _____

1.7 Worst affected community (specify by name) _____

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												

Part 5 Summary of Assistance Received by Provincial/Federal Government and any other Source

Type of Assistance	Source	Status of Use and Implementation of Assistance Required	Problems Encountered
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			

Part 6 Possibility of Secondary Hazards during Disaster Situation

1. _____
2. _____
3. _____

Prepared and submitted by:

Submitted to:

District Authority (DDMA)
Date

Provincial Authority (PDMA)
Date

Explanatory Notes:

1. The detailed District Damage Report is based on the UC reports received within 4-5 days of the disaster occurrence, for onward submission to Province/Federal Departments.

Union Council Level Damage, Needs & Capacity Assessment Form Format

Date of Report _____ UC Name _____

Tehsil Name _____ 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 villages affected _____

1.5 Percentage of population affected versus total population in the district _____%

1.6 Type of area affected _____

1.7 Worst affected villages (specify by name) _____

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												

Part 5 Summary of Assistance Received by Provincial/Federal Government and any other Source

Type of Assistance	Source	Status of Use and Implementation of Assistance Required	Problems Encountered
5.1			
5.2			
5.3			
5.4			
5.5			
5.6			

Part 6 Possibility of Secondary Hazards during Disaster Situation

1. _____
2. _____
3. _____

Prepared by:

Received by:

UC Authority
Date

District Authority
Date

Explanatory Notes:

1. The purpose of the UC Level Damage Report is to report in detail the extent of damages for each vulnerable element: particularly population, household property, agriculture, community and public facilities, the priority needs of population, the type and quantity of assistance provided at the district level and the additional need for outside assistance.

Village Level Damage, Needs & Capacity Assessment Form Format

- I. Name of Village Organization: _____
- II. Description of the Disaster Event:
 Disaster: _____
 Date of Occurrence: _____
 Duration (Description): _____
- III. Affected Area: _____
 (Address: Village/City/District/Region/Province)
 Total Population: _____
 Total No. of Families in village: _____
 Total No. of Families Affected: _____
- IV. Damage to Structures:
 No. of Families Who Own Their Houses: _____
 No. of Families Who Lease: _____
 No. of partially destroyed: _____
 No. of completely destroyed: _____
- V. Damage to Livelihood
 1. _____
 2. _____
 3. _____
- VI. Present Location of the Survivors
 Did the affected families evacuate or do they remain in their respective homes?

(If the answer to the above is yes, answer section A or B below.)
- a. Evacuation Centres (Specify name, location, distance from the place of origin)

 1. When did the families move to the evacuation centre? _____
 2. How many are staying in the centre? _____
 3. Is there enough ventilation? _____
 4. How are waste and excreta disposed of ? _____
 5. Are there enough latrines? _____
 6. Are there sources of potable drinking water? _____
- b. In the absence of an evacuation centre, please specify present location of the survivors and give brief description of the physical condition of the place

VII. Emergency Assistance Received from Other Organizations

Name of Organization	Assistance Extended	Date	Quantity/Estimated Amount

IX. Identification of Needs of Target Beneficiaries

1. _____
2. _____
3. _____

Other Items Needed:

1. Kitchen Utensils: what, how many and why? _____
2. Sleeping materials: What, how many and why? _____
3. No. of families in need of materials for temporary shelter
(Plastic Sheets) _____

XI. Additional Information on the Area

Report Prepared by:

Submitted to:

Village Committee
Administration
Date

UC
Date