National Action Plan

for the Implementation of Bangkok Principles on Health Aspects of the Sendai Framework for Disaster Risk Reduction

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Contents

Acronyms

BHU	Basic Health Unit
CADRE	Community Action for Disaster Response
CBOs	Community Based Organizations
CDC	Communicable Diseases Control
DCO	District Coordination Officer
DDMA	District Disaster Management Authority
DDMC	District Disaster Management Committee
DEWS	Disease Early Warning System
DHIS	District Health Information System
DHO	District Health Officer
DHQ	District Head Quarter
DPO	District Police Officer
DRR	Disaster Risk Reduction
DRM	Disaster Risk Management
EDO	Executive District Officer
EPI	Expanded Programme of Immunization
ERM	Emergency Response Mechanism
EWS	Early Warning System
G-B	Gilgit-Baltistan
GDP	Gross Domestic Product
GLOF	Glacial Lake Outburst Floods
HCP	Healthcare Professional
HICS	Hospital Incident Command System
HMIS	Health Management Information System
IDPs	Internally Displaced Persons
I/NGO	International Non-Government Organizations
IHR	International Health Regulation
LHV	Lady Health Visitor
LHW	Lady Health Worker
MCI	Mass Causality Incidence
MSDS	Minimal Service Deliver Standards

MDGs	Millennium Development Goals
MFR	Medical First Responders
MHVRA	Multi-Hazard, Vulnerability and Risk Assessment
MHU	Mobile Health Unit
MOU	Memorandum of Understanding
NAP	National Action Plan
NDMA	National Disaster Management Authority
NDMC	National Disaster Management Commission
NDMP	National Disaster Management Plan
NFC	National Financed Commission
NGOs	Non-Government Organizations
NHEPRN	National Health Emergency Preparedness and Response Network
NHSR&C	Ministry of National Health Services Regulation and Coordination
NIDM	National Institute of Disaster Management
PDMA	Provincial Disaster Management Authority
PDMC	Provincial Disaster Management Committee
PEER	Programme for Enhancement of Emergency Response
PHC	Primary Health Care
PRCS	Pakistan Red Crescent Society
SDGs	Sustainable Development Goals
SFDRR	Sendai Framework of Disaster Risk Reduction
SOP	Standard Operating Procedures
SUN	Scaling Up Nutrition
TB	Tuberculosis
TDPs	Temporary Displaced Persons
TNA	Training Needs Assessment
UC	Union Council
UCDMC	Union Council Disaster Management Committee
UNISDR	United Nation International Strategy for Disaster Risk Reduction
VO	Village Organization
WHO	World Health Organization

Foreword

Pakistan is vulnerable to a wide range of natural and human induced disasters that have caused a substantial loss of life and property. The devastating earthquake of October 2005 and floods of 2010 took thousands of precious lives and rendered millions homeless. These disasters not only exposed the weaknesses of existing gaps in the health system delivery during disasters, but also provided a chance to learn from international best practices through an interaction with multi-national actors.

As a result of this lesson learning, the National Disaster Management Act was enacted in the country during 2010. However, the aspects of health in reducing disaster risk reduction has been long felt to be addressed especially in the context of Disaster Risk Management. With change in mindset from paradigm shift from a reactive to a proactive approach at the government level, the requirement of a proper National Action Plan to strengthen the existing systems was felt to be focused upon, setting strategic priorities to achieve a robust health system in Pakistan by aligning with the National Disaster Management Plan and National DRR Policy.

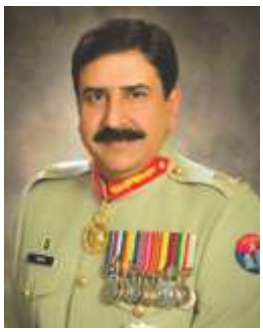
With funding support from the German Federal Ministry of Foreign Affairs, through Malteser International and suggestions duly received from various stakeholders at the country level, the National Action Plan for Health and DRR has been developed through a series of National and provincial level consultative workshops with a vision to strengthen the existing capacities across the country in responding to various health emergencies. These consultations helped in identifying the health gaps, established plans of action and potential implementing partners.

We are grateful to all stakeholders who took part in the consultations and provided their valuable inputs to prepare the document. Special thanks are due for Mr. Fayyaz Hussain Shah, Malteser International and Mr. Falak Nawaz, Network of Disaster Management Practitioners for conceptualizing and steering the whole process for the development of the National Action Plan for Health and DRR.

No plan is etched in stone and there is always room for improvising as per the need of the hour, hence revision might be required to keep this National Action Plan as a Live Document, therefore, this Plan must be considered as a first version. It is requested to all stakeholders to communicate their feedback and suggestions in order to assist NHEPRN for the future improvement of this National Action Plan for Health and DRR.

Dr. Munir Ahmad Mangrio
Director General
National Health Emergency and Response Network (NHEPRN)

Message



The phenomenon of disasters, either natural or triggered artificially leads to fatal injuries, damage to property and environmental degradation. Pakistan is exposed to multiple hazards, whereas occurrence of floods has become a regular feature besides the unpredictable events of earthquake and other manmade disasters that affect our economy. Disaster Management system is focusing a great deal on disaster risk reduction instead of past practices which were mainly response centric. NDMA is making all possible efforts to implement DRR practices as much as possible. While we are gripped by recurrent disasters these calamities afforded, us an opportunity to forge our resilience, enhance our coordination mechanism and enhance DRR interventions.

NDMA remained in the lead role of all pursuits related to preparedness which more meaningfully included use of technology for multi-hazard early warning, multi-hazard vulnerability and risk assessment at micro level and capacity building and raising awareness of government officials. NDMA is enhancing the emergency stocks storage capacity with the assistance of its international partners, by creating the state of the art storage facilities at various strategic locations in the country to store emergency stocks for prompt delivery to vulnerable locations.

The establishment of this full-fledged authority to respond and coordinate all DRM and relief related efforts greatly helped in reducing the consequences of disasters that took place after the National Disaster Management system in the country, however, certain elements like health that can contribute greatly towards further reducing risk to the vulnerable communities were felt to be incorporated into a National level Plan.

In this context, the coordinating role of NHEPRN cannot be emphasized enough especially in devising a health plan which can be mainstreamed into a national disaster response plan in order to reduce the threats posed by the effects of disasters and emergencies. This National Action Plan is envisioned to build the bridge between the disaster management and the health related stakeholders presents at National, Provincial and District level to work in close coordination in reducing the disaster impact to health facilities and health care system in the country.

The task in building bridge between DRR and Health stakeholders is not an easy one as many challenges to build systems would be required in addition to identifying core competencies required at various levels and properly channelizing those competencies in the right direction. This may also highlight the available resources or the ones required to be built or developed, precisely why this document has been compiled keeping into consideration the guidelines laid down in the Sendai Framework on Disaster Risk Reduction.

It would be great milestone once this document gets into existing systems of the country, bringing it at par with developed nations and a full-fledged road map insight mutually agreed by all to fulfill the requirement of a comprehensive disaster management framework.

I would like to thank all who have been associated in development of National Action Plan and hope this goes a long way in establishing of a much strengthened DRM system in Pakistan.

Lieutenant General Omar Mahmood Hayat
Chairman
National Disaster Management Authority (NDMA)

Executive Summary

The physiographic setting of Pakistan makes the country vulnerable to number of natural and human induced disasters. Natural disasters that repeatedly affect the country include: earthquakes, river and flash floods, drought, snow avalanches, glacier lake outburst flooding (GLOF) and landslides etc. In addition to this, the country has been affected by human induced disasters including bomb blasts, fires; both forest and urban fires, road accidents, and many extremism related incidents. The effects of these disasters are further exacerbated by poor infrastructure, scanty emergency response services and poverty, particularly in rural areas lowering coping mechanisms at all levels. With the advent of this century, Pakistan has witnessed series of natural disasters, including 2005's devastating earthquake, horrendous river floods of 2010, 2013 and 2014. Thousands of precious lives were lost causing losses of billions of rupees in addition to high mortality and morbidity incidents. Large-scale destruction of infrastructure, housing, livestock, agriculture, equipment and other assets of livelihoods were destroyed.

With regards to health, Pakistan has been a part of the Alma Ata Declaration for its effective implementation in the country as well as being a signatory to the Millennium Development Goals 2015 and Sustainable Development Goals 2030[1]. Post 18th amendment of the constitution that took place in 2011, the provinces have now been empowered and given autonomy in the field of health to improve the indicators pledged under these international obligations[2]. There is now a need to make more efforts to strengthen the existing systems in terms of overall coordination between central and provincial chapters, equity and developing uniform standards in order to reduce the overall vulnerability of health issues among common masses, especially during disasters.

With the promulgation of National Disaster Management Act 2010, a robust disaster management system spread over the entire country with its national, provincial and district level chapters, however, the element of health in this entire effort has not been addressed properly to date. At the government level, the coping mechanism is in place but needs to be strengthened and therefore NDMA is one move away from a response centric approach towards preparedness and prevention of diseases in emergencies by taking up health as a priority, thus bringing about a paradigm shift in its overall disaster risk management agenda.

Various international entities put their efforts to reduce the risk of hazards and strengthening of health systems during disasters. Noteworthy are the WHO's International Health Regulations (IHR 2005), and Hyogo Framework for Action (HFA, 2005-2015) on DRR, followed by the Sendai Framework for Disaster Risk Reduction (SFDRR, 2015-2030) has laid down seven (07) fundamental principles agreed in an International Conference held during 10-11 March 2016 in Bangkok, Thailand, on the implementation of the health aspects of the SFDRR, which has served the basis of guidance to establish a National Action Plan in Pakistan for mainstreaming Disaster Risk Reduction into Health Sector.

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1. Calculus renal failure in Pakistan, Urolithiasis, Springer Publication, 2012
2. Pakistan Millennium Development Goals Planning, Ministry of Planning, Development and Reform Report 2013 can be found at http://www.pk.undp.org/content/dam/pakistan/docs/MDGs/MDG2013Report/final%20report.pdf

This document provides an Action Plan and Road Map for the forthcoming Ten (10) years devised through a series of consultative meetings and workshops with all relevant stakeholders at national and provincial level under the auspices of national and provincial disaster management authorities. At Islamabad, the federal level workshop was conducted at the NEHPRN office. All relevant stakeholders were invited during these consultative workshops and their inputs were sought under the Seven (07) Fundamental Principles of SFDRR in order to establish and strengthen the health component of disaster management based on their relevant provincial perspectives. Some provinces already have extensive mechanisms in place, whereas some lacked even the basic infrastructure. However, all relevant inputs were duly recorded and placed under the relevant guiding principles in this document which are:

- **Principle-1:** Promote systematic integration of health into national and sub-national disaster risk reduction policies and plans and the inclusion of emergency and disaster risk management programs in national and sub-national health strategies.
- **Principle-2:** Enhance cooperation between health authorities and other relevant stakeholders to strengthen country capacity for disaster risk management for health, the implementation of the International Health Regulations (2005) and building of resilient health systems.
- **Principle-3:** Stimulate people-centered public and private investment in emergency and disaster risk reduction, including in health facilities and infrastructure.
- **Principle-4:** Integrate disaster risk reduction into health education and training and strengthen capacity building of health workers in disaster risk reduction.
- **Principle-5:** Incorporate disaster-related mortality, morbidity and disability data into multi-hazards early warning system, health core indicators and national risk assessments.
- **Principle-6:** Advocate for, and support cross-sectoral, trans-boundary collaboration including information sharing, and science and technology for all hazards, including biological hazards.
- **Principle-7:** Promote coherence and further development of local and national policies and strategies, legal frameworks, regulations, and institutional arrangements.

The National Action Plan for the activities defined under each principle mentioned above have been planned under three (03) distinct phases i.e.

PHASE	TERM	PERIOD
Phase-I:	Short term	1 to 3 years (July 2017-June 2020)
Phase-II:	Medium Term	4 to 6 years (July 2020-June 2023)
Phase-III:	Long Term	6 to 10 years (July 2023- June 2027)

Section 1

Hazard & Risk Profile and Disaster Risk Management System in Pakistan

Hazard & Risk Profile and Disaster Risk Management System in Pakistan

1.1. Pakistan at a Glance

With a population of around 21 million people (as per latest census), Pakistan stands as the sixth (6th) most populous country in the World with an area covering 881,913 square kilometers thus ranks as 33rd area-wise largest country in the world. Pakistan has a 1,046 kilometers long coastline along the Arabian Sea and the Gulf of Oman in the South and is bordered by India to the East, Afghanistan to the West, Iran to the Southwest, and China in the far Northeast respectively. Pakistan has a semi-industrialized economy with a well-integrated agriculture sector, and a growing services sector. The Pakistani economy is the 24th largest in the world in terms of purchasing power and the 41st largest in terms of nominal GDP[3].

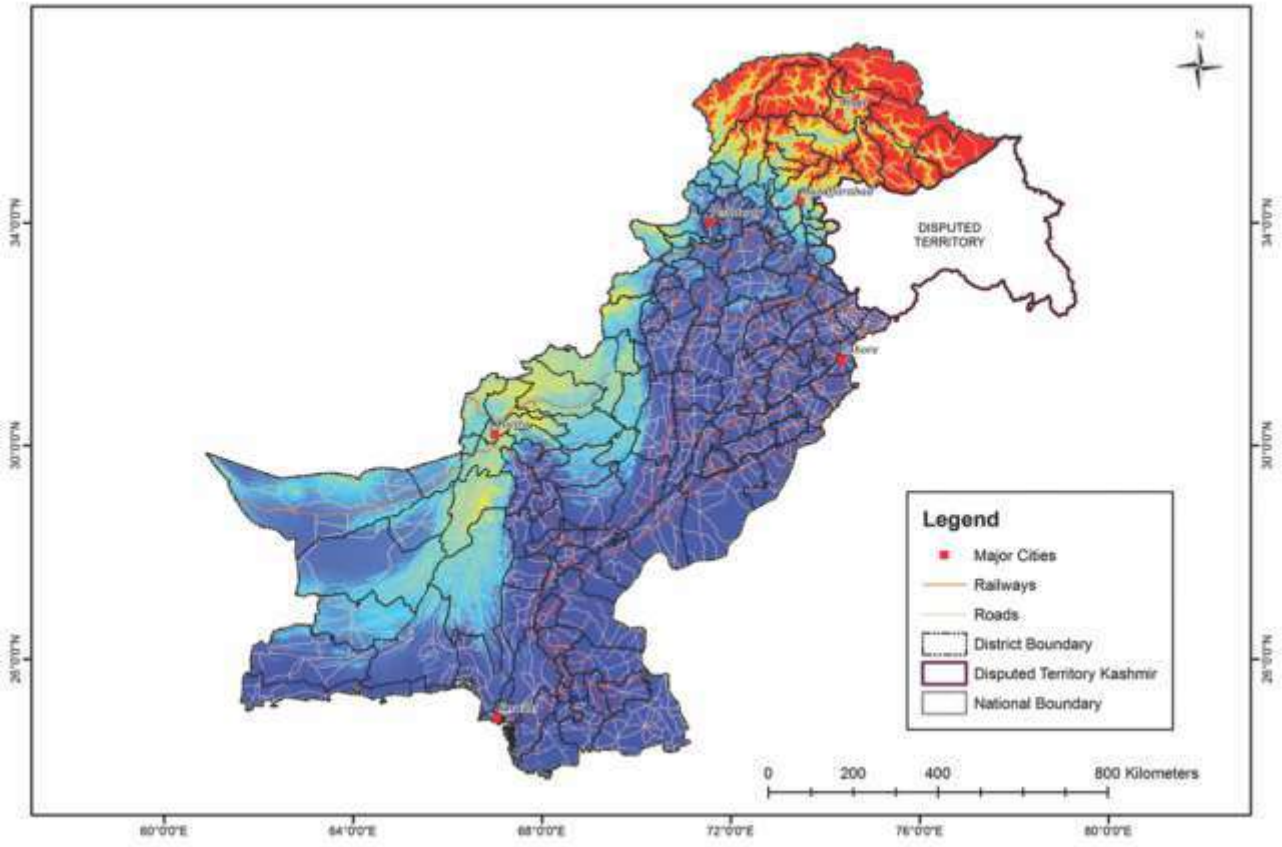


Figure 1: Physiographic Map of Pakistan

3. World Bank report, 2016

Over the past couple of years, greater decision-making authority has been assigned to provincial governments. The Eighteenth (18th) Constitutional Amendment has devolved a number of key subjects/functions to the provinces. In total, functions of 17 federal ministries have been devolved, including Agriculture, Education, Environment, and Health. In addition, a greater share of revenues has been passed to the provinces through the National Finance Commission Award (NFC) in order to enable them to perform better functions. As expected, the devolution has posed institutional and capacity challenges at the provincial level, and meeting these challenges will require concerted efforts to enhance sub-national capacity and institutional development, which varies across provinces.

1.2. Hazard and Risk Profile of Pakistan

Pakistan is prone to a wide range of natural and human induced disasters due to its peculiar geographic, physiographic and strategic settings. Since its creation, Pakistan has witnessed high magnitude disasters causing wide spread damages to lives and properties and leaving long term consequences in the form of unbearable losses. Massive recurrent river and flash floods in the past seven consecutive years, devastating earthquakes and frequent occurrences of floods, drought, landslides, avalanches as well as the persistent threat of tropical cyclones, snow avalanches and glacial lake outburst floods have caused tens of millions of people to be affected and billions of US Dollars in damages. These disaster occurrences demonstrate the exposure and extent of vulnerability that many are facing in Pakistan since beginning of the decade.

With climate change predicted to cause an increasing number of more extreme weather events at times that may differ from the regular weather pattern, there is a real expectation of increase of disasters occurrences. During recent years, we have experienced increase in glacier melting, snow avalanche incidences, heat strokes, heavy downpours and flash flooding are some of the common hazards risk that are now constant threats to the people of Pakistan. Moreover, rapid urbanization with unplanned land use planning, over exploitation of natural resources and haphazard development in the form of squatter settlements have increased vulnerabilities of marginal people living in very dilapidated environment. As a result, rain emergencies and breakout of diseases are very common phenomena in urban areas after any threat of natural and human induced disasters. If we look it to the past disaster's history, number of protuberant disasters happened with heavy loss of lives and properties. Among these disasters, some are mentioned below in Table-1:

Table - 1: Some of the Devastating Disasters in Pakistan

Sr. #	Disaster	Year	Casualties	Description
1.	Quetta Earthquake	1935	60,000	One of the deadliest earthquakes with a 7.7 Richter scale earthquake virtually leveled the city of Quetta in Baluchistan on May 31, 1935. The epicenter was about 153km from the city.
2.	Baluchistan Tsunami	1945	4,000	On November 28, a massive tsunami was generated due to a violent earthquake of magnitude 8.3, offshore Makran Coast south of Pasni during the early hours. The tsunami produced sea waves of 12-15 meters' height. The tsunami waves reached as far as Mumbai in India. Karachi, about 450km from the epicenter, experienced 6 feet high sea waves which affected the harbor facilities. The epicenter was 98km southwest of the town of Pasni.
3.	Floods	1950	2,900	Over 100,000 homes were destroyed leaving 900,000 people homeless during the monsoon season and resulting floods in 1950 in Punjab. Lahore was the worst affected city where Ravi River bring heavy flooded water.
4.	East Pakistan Cyclone	1970	500,000	A tropical cyclone struck the former East Pakistan (Bangladesh) on November 12, 1970. It was the deadliest cyclone ever recorded in East Bengal, primarily as a result of the storm surge that flooded much of the low lying islands of the Ganges delta.
5.	Hunza-Pattan Earthquake	1974	5,300	During December 28, 1974, a 6.2 Richter scale earthquake hit Swat, Hunza and Hazara areas in northern Pakistan. 17,000 were injured and 97,000 were affected. Landslides and rock falls contributed to the damage. Most of the destruction centered around the village of Pattan about 160km north of Islamabad.

Sr. #	Disaster	Year	Casualties	Description
6.	Drought	2000	100	1.2 million People in Baluchistan were affected by drought, mostly because of dehydration. Millions of animals perished. One of the worst hit areas was the town of Nushki, close to the border with Afghanistan.
7.	Kashmir Earthquake	2005	73,000	A 7.6 Richter scale earthquake struck the Kashmir region and parts of north-western Pakistan. The Kashmir earthquake occurred in a region where a major plate-boundary earthquake was considered long overdue. Although the earthquake resulted in widespread devastation, the scientists believe that it may not have released more than one tenth of the cumulative elastic energy that has developed since the previous great earthquake in the region in 1555 or earlier[4]. More than 3.3 million were made homeless. The worst affected areas included Neelum Valley and Bagh district in AJK and Mansehra division. The collapse of a high rise apartment building in Islamabad also killed scores.
8.	Yemyin Cyclone	2007	730	Yemyin Cyclone struck coastal areas of Sindh and Baluchistan during early July 2007. Around 350,000 people were displaced, 1.5 million were affected and more than two million livestock perished.
9.	Atta Abad land sliding	2010	20	A massive landslide occurred during January 2010 due to sever jolts of earthquake. Village Atta Abad in the Hunza Valley was the worst affected by killing 20 people where around 40 houses were washed away into the Hunza river. Debris from the landslide caused the river to dam, leading to the formation of a large lake which threatened to

4. http://cires.colorado.edu/~bilham/Kashmir 202005.htm- Dr. Roger Bilham of the Cooperative Institute for Research in Environmental Sciences

Sr. #	Disaster	Year	Casualties	Description
				flood downstream areas and washed away a sizable portion of the Karakoram Highway. The lake is still persistent there and is a continuous threat to the downstream areas of Hunza valley.
10.	Pakistan Super Floods	2010	2000	In the worst ever floods that affected the whole of Pakistan around 2,000 people lost their lives and over 20 million were affected[5]. Pakistan sought international help as the country was unable to cope with the catastrophe on its own.

1.3. Disaster Management System in Pakistan

As already narrated, Pakistan is vulnerable to a range of natural and human induced hazards. Till 2005, reactive emergency response approach in the form of Calamity Act of 1958 remained the predominant way of dealing with disasters in Pakistan. The Earthquake, 2005 highlighted the need for paradigm shift from response and relief oriented approach to mitigation and preparedness. It also exhibited the need for establishing appropriate policy and institutional mechanism to reduce losses from disasters in future. The need fulfilled through promulgation of National Disaster Management Act during 2010. As a result of which, a network of disaster management institutions came into being throughout the country. The National Disaster Management Authority (NDMA) at the federal level is working as focal point to lead the process by facilitating the work of Provincial Disaster Management Authorities (PDMAs) and the District Disaster Management Authorities (DDMAs). The new system envisages to achieving sustainable social, economic and environmental development in Pakistan through reducing risks and vulnerabilities. It has a mission of enhancing institutional capacities for disaster preparedness, response and recovery with a risk reduction perspective in the development planning process at all levels. Below is some of the highlights of the disaster management system in the country;

1.3.1. National Level

1.3.1.1. National Disaster Management Commission (NDMC)

Headed by the Prime Minister as the Chairperson, the NDMC is the highest policy and decision making body for disaster management. Other members include opposition leaders of both the houses; Chief Ministers of five provinces including Gilgit-Baltistan; Governor Khyber Pakhtunkhwa for FATA; Prime Minister AJK; Chairman Joint Chiefs of Staff Committee or his nominee;

5. Daily Dawn newspaper @ dawn.com
6. National Disaster Management Plan 2012-22 and National Disaster Risk Management Framework 2009, National Disaster Management Authority, Islamabad

federal ministers for important ministries; Chairman NDMA; Representative of Civil Society; and any other person appointed or co-opted by the Chairperson. NDMC is mandated to formulate polices and develop guidelines on DRM, approve disaster management plans prepared by Ministries or Divisions of the federal government, arrange and oversee funds, and provide support to other countries affected by major disasters.

1.3.1.2. National Disaster Management Authority (NDMA)

NDMA has been established to serve as the focal point and coordinating body to facilitate implementation of disaster management strategies. Following are the powers and functions of NDMA;

- Act as the implementing, coordinating and monitoring body for disaster management;
- Prepare the National disaster management plan to be approved by the NDMC;
- Lay down guidelines for preparing disaster management plans by different Ministries or Departments and the Provincial disaster management authorities;
- Implement, coordinate and monitor the implementation of the National DRR Policy;
- Provide necessary technical assistance to PDMAs for preparing Provincial disaster management plans;
- Coordinate response in the event of any threatening disaster situation or disaster;
- Promote general education and awareness in relation to disaster management;
- Perform such other functions as the NDMC may require it to perform.

1.3.2. Provincial Level

1.3.2.1. Provincial Disaster Management Commission (PDMC)

The PDMC is chaired by the Chief Minister and other members include opposition leader and a member nominated by the Chief Minister. The Chief Minister has the powers to nominate other members of PDMC. Similarly, he may designate one of the members to be the Vice Chairperson. The powers and function of PDMC are as following:

- Lay down the provincial/regional DRR policy;
- Approve the disaster management plan
- Review implementation of the Plan;
- Review the development plans of provincial departments and ensure that risk reduction measures are integrated;
- Oversee the provision of funds for risk reduction and preparedness measures.

1.3.2.2. Provincial Disaster Management Authority (PDMA)

The PDMA is headed by a Director General appointed by the Provincial Government. Following are the powers and functions of PDMA;

- Formulate disaster management policy and obtain approval of the PDMC;
- Ensure implementation of disaster management policies and plans in the Province;
- Coordinate and monitor the implementation of the National Policy,

National and Provincial disaster management plan;

- Examine the vulnerability and risk of different parts of the Province to different disasters and specify prevention or mitigation measures;
- Lay down guidelines to be followed by Provincial Departments and District Authorities for preparation of disaster management plans;
- Evaluate preparedness and response arrangements of public and private agencies / departments at the provincial level;
- Coordinate response in the event of disaster;
- Give directions to any Provincial department or authority regarding actions to be taken in response to disaster;
- Ensure that communication systems are in order and disaster management drills are being carried out regularly.

1.3.3. District Level

1.3.3.1. District Disaster Management Authority (DDMA)

The National Disaster Management Act put ample emphasis on establishing DDMAs by notifying them in the Official Gazette. DDMAs are headed by District Nazims whereas DCs, District Police Officers (DPOs), EDOs (Health), and any other district-level officers appointed by the District Government are its members. Following are the powers and functions of DDMAs;

- To plan, coordinate and implement disaster management measures in accordance with the guidelines laid down by NDMA and PDMA;
- Prepare District Disaster Management Plan (DDMP) and District Emergency Response plans;
- Ensure that the risk-prone areas are identified and prevention and mitigation measures are undertaken accordingly;
- Ensure that the guidelines for prevention, mitigation, preparedness and response measures as laid down by NDMA and PDMA are followed by all district level departments;
- Lay down guidelines for disaster management plan;
- Monitor the implementation of disaster management plans prepared by the district departments;
- Organize and coordinate DRM training programs for district government officials, community members and community-based organizations;
- Set up, maintain, review and upgrade the mechanism for early warnings and dissemination of proper information to public;
- Prepare, review and update district level response plan and guidelines;
- Establish stockpiles of relief and rescue materials;
- Ensure that communication systems are in order and disaster management drills are carried out periodically.

1.4. Healthcare System in Pakistan

The Healthcare system in Pakistan comprises of government and the private sector. Further to the 18th constitutional amendment in 2011, the subject of health has been devolved to the provinces for greater autonomy and better management. However, the vertical programs including, Malaria, HIV/AIDs, TB and Polio control that Pakistan has to report viz.a.viz. The Millennium Development Goals

(MDGs) now Sustainable Development Goals (SDGs), have been retained at the federal level. A snap shot of the healthcare delivery system in Pakistan is given in below Figure 2:

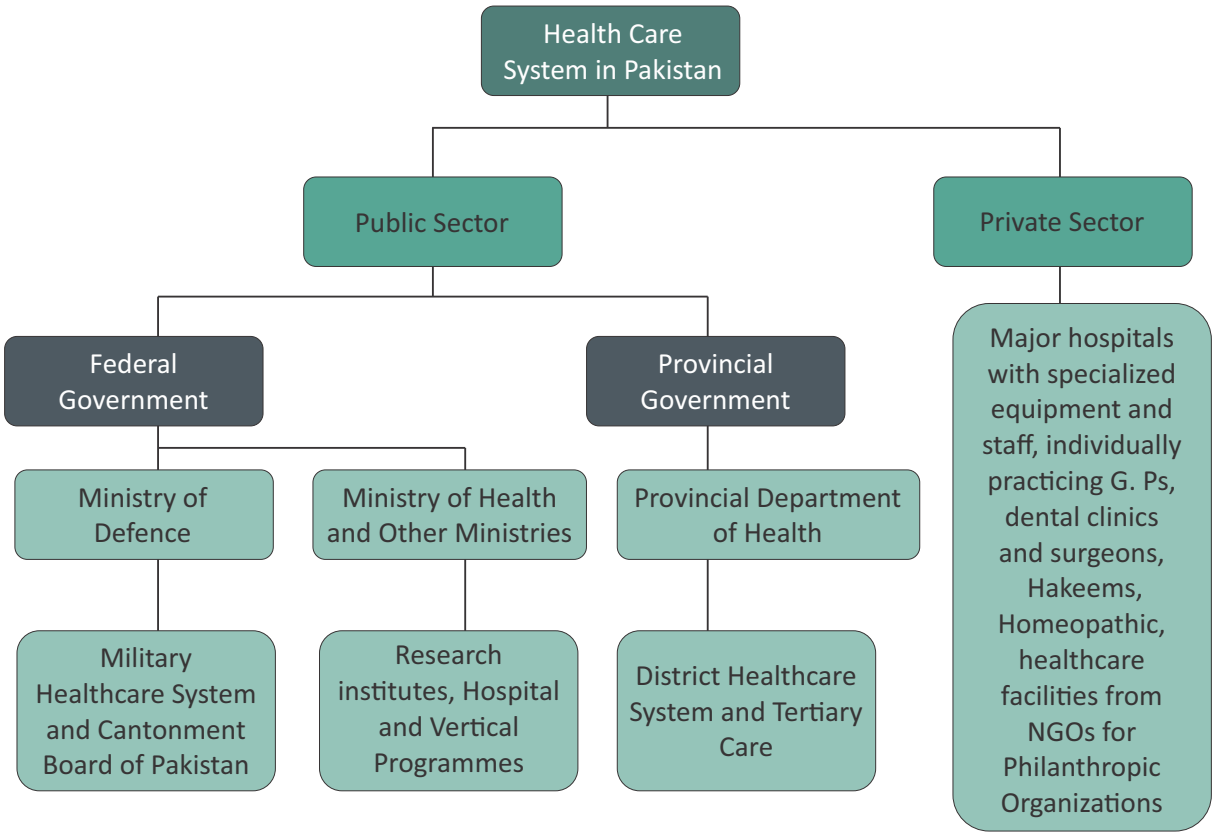


Figure 2: Healthcare System in Pakistan (Delivery)[7]

The Government of Pakistan provides the healthcare delivery at three levels:

1.4.1. Primary Healthcare

The Primary level healthcare is the essential care provided by the government to the people of the state as per the 1978 Alma Ata Declaration based on five (05) pillars and eight (08) components. These pillars are as follows;

a. Focus on prevention
b. Community participation
c. Inter-sectoral collaboration
d. Use of appropriate technology
e. Equity

7. National Health Emergency Preparedness and Response Network (NHEPRN), 2017

The eight (08) components are as follows;

a. Health education
b. Water and sanitation
c. Nutrition and growth monitoring
d. MCH services
e. EPI (expanded program of immunization)
f. Treatment of epidemic diseases
g. Control of endemic diseases
h. Use of essential medicines

The primary level care is given out through;

- Basic Health Units (BHUs) offers Outpatient Services (OPD), managed by a qualified doctor that cater to 10,000-25,000 population catchment area.
- Lady Health Workers (LHWs) through a program consisting of 90,000 LHWs across the country that visit house to house and sensitize women on health and hygiene issues.

1.4.2. Secondary Healthcare

The secondary healthcare is where there is an inpatient facility for minor ailments is provided at the following three (03) levels;

a. Rural Health Centers
b. Tehsil Headquarter Hospitals
c. District Headquarter Hospitals

1.4.3. Tertiary Healthcare

This level deals with all levels of advanced diagnostic and curative care given out through teaching hospitals.

1.5. The Healthcare Infrastructure in Pakistan;

According to the 2009 statistics, the healthcare infrastructure existing in Pakistan is as shown in Table-2, Table-3 and Figure-3 below;

Table 2: Healthcare Professionals in Pakistan (2009)[8]

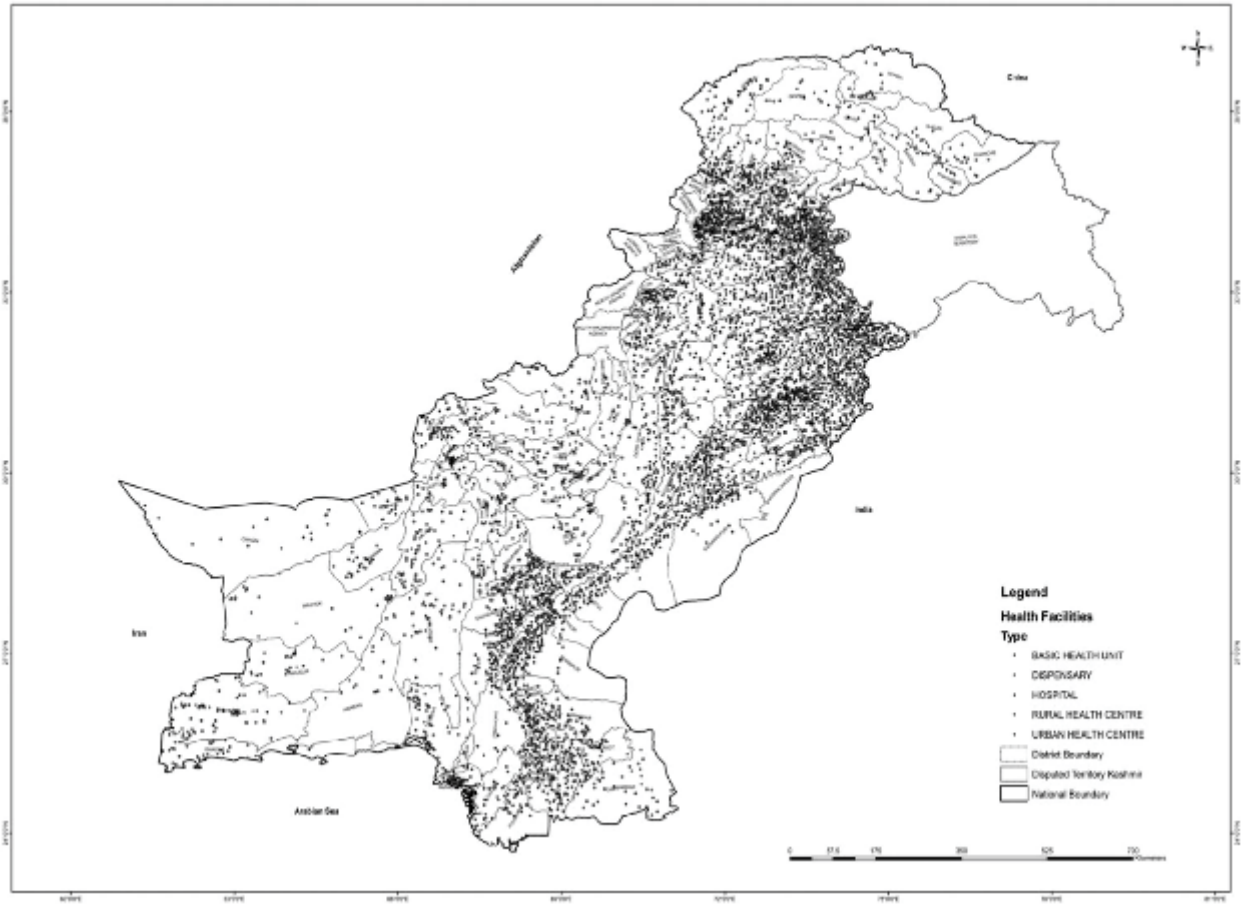
Type of Healthcare Professionals	Number
Doctors	139,555
Dentists	9,822
Nurses	69,313
Midwifes	26,225
Health visitors	10,731

8. National Health Emergency Preparedness and Response Network (NHEPRN), 2017

Table 3: Healthcare Facilities in Pakistan (2009)

Health Facilities	Number	No. of Beds
Total Healthcare Facilities	13,937	103,708
Hospitals	968	84,257
Dispensaries	4,813	2,845
Rural Health Centers	572	9,612
Tuberculosis Centers	293	184
Basic Health Units	5,345	6,555
M.C.H.	906	256

Figure 3: Distribution of Healthcare Facilities in Pakistan[9] (2015)



9. National Health Emergency Preparedness and Response Network (NHEPRN), 2017

According to 2015 UNDP report, with a Human Development Index (HDI) value of 0.538, Pakistan ranks 147th out of 188 countries and territories. Pakistan ranks 121st out of 155 countries in terms of its Gender Inequality Index: only 19.3 percent of women reach secondary education compared to 46.1 percent of men, while female participation in the labor market is 24.6 percent compared to 82.9 percent for men[10].

10. United National Development Programme, 2016

Section 2

Healthcare Challenges during Disasters and Need for Development of The National Action Plan

Healthcare Challenges During Disasters and Need for Development of The National Action Plan

2.1. Introduction

During any disaster, the first thing that affects the human is health. The challenges range from Physical, mental, social and spiritual wellbeing and need to be catered to in order to bring back normalcy in life. Before embarking on a Plan that entails the aspects of dealing with health issues during any emergency, it is imperative to take cognizance of the impact of disasters on human health and life.

2.2. Health Status of the Population

The overall health status in Pakistan has improved since the 1990 at a much slower pace in relation to its neighboring countries. The increase in life expectancy at birth, from 64 years to 70 years in the recent years. It is, however, higher than the life expectancy at birth in India and Bangladesh, but significantly lower than in Sri Lanka, Indonesia and Malaysia. Pakistan ranked 147 among 188 countries on the Human Development Index in 2016[11].

The vulnerability of the Pakistani population with regard to health stems from the many challenges to its health system ranging from poor health indicators, low health investments, expenditures and utilization. However, this vulnerability is exacerbated by the poor social determinants of health such as illiteracy, unemployment, gender inequality, social exclusion, rapid urbanization and environmental degradation. Women continue to face the risk of limited access to reproductive health services and pregnancy related morbidity and mortality. Nearly 11,000 women die annually while giving birth, signifying one of the highest maternal mortality rates in the Region. In 2008–2009 only 28% of births were attended by a skilled birth attendant and an overwhelming 65% of women delivered their children at home. Limited access to essential prenatal, natal and postnatal medical services all over the country is further compounded by marked disparities among different provinces and between rural and urban areas. Similarly, malnutrition remains widespread with few significant or positive outcomes achieved in the last two decades.

Despite the fact that we described above, due to sedentary life styles and calorie rich diet, the probability of dying between the ages of 30 to 70 due to non-communicable diseases is 21%, and comprising of:

- Cancer
- Diabetes
- Cardiovascular diseases
- Chronic Respiratory Diseases[12]

11. United Nation Development Programme at http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf
12. World Health Organization 2012

According to CDC Global Health Pakistan, the top ten (10) causes of death in Pakistan are:

a.	Ischemic Heart Disease:	8%
b.	Cancer:	8%
c.	Lower-Respiratory Infections:	8%
d.	Stroke:	6%
e.	Diarrheal Diseases:	6%
f.	Neonatal Encephalopathy:	5%
g.	Chronic obstructive pulmonary disease:	5%
h.	Tuberculosis (TB):	5%
i.	Pre-Term Birth Complications:	4%
j.	Diabetes:	3%

2.3. Poverty and Health

The links between ill-health and poverty are well known. In addition, the link between low levels of education and high fertility not only exacerbates the mortality risks among women and children, but also keeps children away from schools, thereby reducing their chances of a productive adulthood. In Pakistan, public expenditures on health are low, even though they are viewed as part of the government's poverty reduction efforts aimed at making progress towards achieving the MDGs by 2015. Security and governance challenges in some parts of the country are emerging as another major risk to health outcomes, with state- building fast becoming part of the orthodoxy of security and development. Investment in health has a long-term beneficial effect, as improving health outcomes reduces poverty and helps to eliminate a major risk factor for further conflict. The health sector is seen as a legitimate entry point for wider state-building as it contains a highly skilled workforce and a relatively good evidence base. If $2 is considered to be the minimum daily wage, then more than half of the country lives below the poverty line. The official poverty line of Pakistan is 22.3% for the year[13].

2.4. Impact of Disasters on Health Sector

Typically, during any disaster, the most fundamental right of humans i.e. access to health care gets affected resulting in various short and long term impacts. The short term effects ranges are, but not limited to:

- Death
- Severe injuries requiring extensive treatment
- Increased risk of communicable diseases/disease outbreaks
- Damage to health facilities
- Damage to water and sanitation systems

13. Pakistan Economic Survey for 2013-14.

- Food shortage resulting in malnutrition
- Major population movements causing incidence in diseases and further compounding the existing health status.
- Effect on life resulting from a disaster situation.

Life during any emergency gets affected in many ways and the healthcare gets disrupted by many ways viz.a.viz;

- Availability of healthcare
- Accessibility of healthcare
- Affordability of healthcare
- Acceptability of healthcare
- Accountability of healthcare

2.5. Effect on Healthcare System during Disaster Situation

The health system comprises of various components ranging from hospital based care to prevention methodologies and information sharing. These components act as a chain and are inter-dependent on each other. The components are briefly as follows;

2.5.1. Curative Health

This takes place in a dispensary or a hospital setup from where the patient access health care by getting medicines dispensed after a checkup. The curative service is dependent on a proper infrastructure that provides a safe and hygienic condition to treat the ailments. During the emergencies, infrastructure gets damages thus causing disruption to access in health care to the community.

2.5.2. Preventive Care

Prevention is better than cure and the preventive medicine has recently gained a lot of importance in stopping the spread or onset of diseases. Although, the preventive care does not necessarily require a proper infrastructure, however population displacement during emergency and hazards causes a disruption of routine immunization services. Also, health and hygiene sessions that are supposed to be conducted from a basic health unit by outreach teams also get affected.

2.5.3. Mental Health

Mental health remains a great challenge in any community during any disastrous or emergency situation. Physical injuries are apparent to the eye and can be immediately addressed, however, the mental health symptoms are usually not very apparent in first go. However, psychological first aid remains a priority area in disasters. The most common form of mental disorder is the Post Traumatic Stress Disorder (PTSD).

2.6. Key Healthcare Challenges in Pakistan to Face during Disasters and Emergencies

According to WHO, health is defined as a state of complete physical, mental and social wellbeing and not merely an absence of disease or infirmity. As per this definition, health is the overall wellbeing that includes the aspect of societal factors. At a field level, the maximum damage takes place in terms of disruption of normal life and dealing with mortality and morbidity of the displaced and affected population. The major challenges in healthcare as narrated in a breakdown of disaster management cycle;

2.6.1. Healthcare challenges after the impact of disaster (response phase)

2.6.1.1. Search, Rescue and First Aid

After a major disaster, the need for search, rescue and first aid is likely to be so great that organized relief services will be able to meet only a small fraction of the demand. The major challenges in this regard are;

- No uniform standard of First Aid Trainings available in the country. All organizations imparting the First Aid trainings are using their own guidelines.
- No dedicated field service unit trained enough to conduct search and rescue. The International Red Cross Red Crescent Movement's chapter in Pakistan (PRCS) has a search and Rescue unit duly supervised by a FACT (Field Assessment and Coordination Training) trained personnel, however, only 3-4 personnel have so far undertaken this training so far in Pakistan.
- The golden hour, i.e. the first hour which is referred to as the golden hour is the most critical time that defines the future outcome of the injured patient is not taken seriously. In Pakistan, most cases go unchecked and non-referred as there is no particular emergency ambulance service except Punjab and in some parts of Khyber Pakhtunkhwa that can immediately attend to the patients on site as part of pre-hospital care. Also, there is no proper system to generate the emergency medical technicians that are associated with any ambulance.
- In most of the countries, the students at school/college level to undergo mandatory first aid training, however, such types of trainings at schools and college level is lacking in Pakistan.

2.6.1.2. Field Care

Most injured persons converge spontaneously to health facilities, using whatever transport is available, regardless of the facilities' operating status. Providing proper care to casualties requires that the health service resources be redirected to this new priority. Bed availability and surgical services, mobile health units in the field are very limited especially during any disaster events. Besides, there is lack of an effective referral system especially at the district level. In larger cities, private ambulance services are providing such care. In Punjab and Khyber Pakhtunkhwa, Gilgit-Baltistan and AJ&K, Rescue 1122 are actively engaged but the services are still limited to urban areas only. At rural areas, the referral mechanism is very weak.

2.6.1.3. Triage

Triage consists of rapidly classifying the injured on the basis of the severity of their injuries and the likelihood of their survival with prompt medical intervention. Higher priority is granted to victims whose immediate or long-term prognosis can be dramatically affected by simple intensive care. Patients who require a great deal of attention, with questionable benefit, have the lowest priority.

Although different triage systems have been adopted and are still in use in some countries, the most common classification uses the internationally accepted four colour code

system which is still not being observed in Pakistan as a system i.e.;

- Red indicates high priority treatment or transfer
- Yellow signals medium priority
- Green indicates ambulatory patients
- Black for dead or moribund patients.

Although most of the medical doctors are professionally trained in triage. However, there is lack of regular practice and simulation especially during mass causality incidences. Especially health personals at district level aren't properly trained in triage.

There is need of developing standard operating procedures and guidelines especially for the district level government and private level hospitals for triage.

Emergency medical officer's capacity is lacking with reference to dead body management.

2.6.1.4. Identification of Dead

Taking care of the dead is an essential part of the disaster management. A large number of dead can also impede the efficiency of the rescue activities at the site of the- disaster. Some of the challenges are as follows;

- Removal of the dead from the disaster scene to reduce the risk of epidemics;
- Shifting to the mortuary;
- Identification, reception of bereaved relatives;
- Handling with proper respect for the dead body is of great importance.

2.6.2. Healthcare Challenges during the Relief Phase

This phase begins when assistance from outside starts to reach the disaster hit area. The type and quantity of humanitarian relief supplies are usually determined by two main factors, firstly the type of disaster, since distinct events have different effects on the population and secondly the type and quantity of supplies available locally. Major challenges foreseen during the relief phases are;

- Availability of medical supplies, emergency vehicles for quick referral
- Provision of food and non-food items to disaster victims
- Lack of proper storage facility at the district level for the distribution of non-food items and food items.

2.6.2.1. Logistics

Disaster managers must be prepared to receive large quantities of donations. These can be in the form of food, non-food supplies as well as equipment and medicines for the affected patients. There are four principle challenges in the health sector managing humanitarian supplies:

- Acquisition of supplies like medicines and equipment; ensuring the expiry dates etc.
- Transportation of medical supplies; under proper temperatures and transportation protocols.
- Storage of medicines and equipment under proper storage.
- Limited or no warehousing system which

is of uniform standard across the country.

- Distribution/dispensing.

2.6.2.2. Epidemiologic Surveillance and Disease Control

Disasters can increase the transmission of communicable diseases. The effective checking the spread of diseases and epidemics can prevent further loss to lives. The major challenges through which the diseases can spread are through following mechanisms:

- Overcrowding and poor sanitation;
- Population displacement;
- Disruption and contamination of water supply;
- Disruption of sewerage systems;
- Disruption of routine control programmes;
- Ecological changes;
- Displacement of domestic and wild animals;
- Provision of emergency food, water and shelter.

2.6.2.3. Vaccination

Pakistan has a vaccination programme for children right from the birth until five years of age. This vaccination is done at all levels of healthcare, primarily the basic health unit (BHU) and its outreach teams, under the name of EPI, i.e. the expanded programme of immunization. The vaccination is done under the international guidelines against the preventable diseases like Polio, T.B, measles, meningitis, Hepatitis B, small pox, whooping cough etc. Following are some of the challenges;

- Health authorities are often under considerable public and political pressure to begin mass vaccination programme, usually against typhoid, cholera and tetanus. The WHO does not recommend typhoid and cholera vaccines in routine use in endemic areas. However, these vaccinations are recommended for health workers but no strict compliance or guidelines are available for the healthcare providers as yet for this issue.
- There is a lack of maintenance of a high level of immunity in the general population by routine vaccination before the disaster occurs, and adequate wound cleaning and treatment system is compromised.

2.6.2.4. Nutrition

Infants, children, pregnant women, nursing mothers and sick persons and elderly are more prone to nutritional problems after prolonged drought or after certain types of disasters like cyclones, floods, land or mudslides, and sea surges involving damage to crops, to stocks or to food distribution systems.

- There is no proper nutrition and growth monitoring structure for children available in the country that would help in assessments of the nutritional needs especially during any disaster
- The nutritional needs of pregnant women are mostly gauged at homes and remain compromised in the rural setups.

2.6.3. Healthcare Challenges during the Rehabilitation Phase

This phase in a disaster should lead to restoration of pre-disaster health conditions. Rehabilitation of health starts from the very first moment of a disaster. It is normally observed that measures decided in a hurry tend to obstruct re-establishment of normal

health conditions of life. Besides, medical provisions by external agencies of sophisticated medical care for a temporary period have negative effects. On the withdrawal of such care, the population is left with a new level of expectation which simply cannot be fulfilled.

2.6.4. Healthcare Challenges during the Mitigation Phase

Emergency prevention and mitigation should involve measures designed either to prevent hazards from causing emergency or to lessen the likely effects of health emergencies. However, in the local context, major challenges for which a systemic approach is still required for improvement revolve around:

- Disaster mitigation works;
- Conducting multi-hazard, vulnerability and risk assessment of health facilities;
- Appropriate land-use planning;
- Apply DRR building codes while constructing new structures;
- Properly fixing of assets as non-structural components in the health facilities;
- Necessary retrofitting of vulnerable buildings that are at high risks;
- Reduction or protection of vulnerable population and structures.

2.6.5. Healthcare Challenges during the Preparedness Phase

With the current health response systems in place, emergency preparedness would require to focus on "a programme of long term development activities whose goals are to strengthen the overall capacity and capability of a country to manage efficiently any type of health emergency and bring about an orderly transition from relief through recovery, and back to sustained development. The major challenge of disaster preparedness here would be to ensure that appropriate systems, procedures and resources should be in place to provide prompt & effective health assistance to disaster victims, thus facilitating relief measures and rehabilitation of services.

2.6.5.1. Community Preparedness

Community participation being a major pillar of Primary Healthcare requires to be incorporated into the health systems in order to ensure resilience during any disaster or emergency in terms of continued access to essential healthcare. In order to achieve this resilience, the community needs to be prepared from a reactive to a more pro-active approach. The challenges for this preparedness are:

- Non sensitization of disaster affected communities to understand the importance of preparedness and ownership of initiatives;
- Lack of awareness and strong believe on fatalism;
- Identification, availability and capacity building of the individuals/ volunteers that should be responsible for maintaining community's well-being;
- Transparency and accountability of the capacity building process which should be appropriate to the local context;
- Lack of resource mobilization;
- Sustained development by allowing emergency prone or affected communities to design, manage, and implement internal and external assistance programme, including conducting continuous drills.

2.6.5.2. Risk Assessment

The assessments of health risks within a disaster prone or affected area in a local context is exposed to challenges viz.a.viz:

The system depends on the coordination of a variety of sectors to carry out the following tasks for which no clear cut mechanism is in place:

- Evaluate the potential health risks of the particular region to disaster;
- Develop guidelines for assessing health risk with multi-hazard perspectives;
- Adopt standards and regulations with a minimum health service delivery standard during any disaster or emergency;
- Conduct risk assessment of all health facilities at National, Provincial and District level by Provincial health departments;
- Identify health facilities that already exists but are at risk of various hazards;
- Analysis for human resource and treatment to reduce the risk of hazards;
- Generation of resources by making health risk assessment a priority at the National Level.

2.7. Health Sector a Priority for mainstreaming Disaster Risk Reduction (Opportunities in Creating Safer Health System)

With the available data on challenges that healthcare sector poses during emergencies, there is a dire need of integrating DRR into health sector to reduce the vulnerabilities and risk of health facilities, reduce burden of diseases, mortality and chances of morbidity of the vulnerable population. During recent decade, lot of work had been done in disaster risk reduction across the world, however, after the Hyogo Framework of Action and Sendai Framework for DRR publishing, there is a clear cut pathway to establish systems that have the DRR component in health sector. The National Action Plan would further devise a pathway for development of a road map on how to integrate DRR into health, but before the discussion on proposing action plan, below are some of the salient features of International and National initiatives taking place in DRR and its integration in different sectors:

2.7.1. Sendai Framework for Disaster Risk Reduction (SFDRR 2015-2030)

The Sendai Framework for DRR (SFDRR) is the successor instrument to the Hyogo Framework for Action (HFA) 2005-2015 for building the resilience of nations and communities to disasters. The HFA was conceived to give further impetus to the global work under the International The Sendai Framework for DRR (SFDRR) is the successor instrument to the Hyogo Framework for Action (HFA, 2005-2015) for building the resilience of nations and communities to disasters. The HFA was conceived to give further impetus to the global work under the International Framework for Action for the International Decade for Natural Disaster Reduction of 1989, and the Yokohama Strategy for a Safer World: Guidelines for Natural Disaster Prevention, Preparedness and Mitigation and its Plan of Action, adopted in 1994 and the International Strategy for Disaster Reduction of 1999. The SFDRR is built on elements which ensure continuity with the work done by allied countries and other stakeholders under

the HFA and introduces a number of innovations as called for during the consultations and negotiations.

The Sendai Framework for Disaster Risk Reduction (SFDRR, 2015-2030) was adopted at the Third UN World Conference in Sendai, Japan, on March 18, 2015. It is the outcome of stakeholder consultations initiated in March 2012 and inter-governmental negotiations from July 2014 to March 2015, supported by the United Nations Office for Disaster Risk Reduction at the request of the UN General Assembly.

2.7.1.1. Priority for Action under the SFDRR

Taking into account the experience gained through the implementation of the Hyogo Framework for Action, and in pursuance of the expected outcome and goal, there is a need for focused action within and across sectors by states at local, national, regional and global levels in the following four priority areas:

- Priority 1: Understanding disaster risk;
- Priority 2: Strengthening disaster risk governance to manage disaster risk;
- Priority 3: Investing in disaster risk reduction for resilience;
- Priority 4: Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.

2.7.1.2. The Seven Global Targets of the Sendai Framework to Achieve by 2030

It is noteworthy that that there are seven (07) global targets set for achieving through the SFDRR in which four (04) targets (I, II, IV & VII) are directly related to Health;

I. Reduce global disaster mortality
II. Reduce the number of affected people globally.
III. Reduce disaster economic loss
IV. Reduce disaster damage to critical infrastructure and services
V. Increase the number of countries with national and local DRR strategies
VI. Enhance international cooperation
VII. Increase the availability of and access to multi-hazard EWS and disaster risk information

2.7.2. Health Aspects of the Sendai Framework Priorities for Action - Extracts from the SFDRR [14]

2.7.2.1. Priority 1: Understanding disaster risk

"Policies and practices for disaster risk management should be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment."

14. UNISDR's Fact sheet: Health in the Context of the Sendai Framework for Disaster Risk Reduction 2017

Disaster risk and loss Data (para 25a):

"Enhance the development and dissemination of science-based methodologies and tools to record and share disaster losses and relevant disaggregated data and statistics, as well as to strengthen disaster risk modelling, assessment, mapping, monitoring and multi-hazard early warning systems;"

Safe hospitals and health infrastructure (para 25f):

"Develop effective global and regional campaigns as instruments for public awareness and education, building on the existing ones (for example, the "One Million Safe Schools and Hospitals" initiative...). To promote a culture of disaster prevention, resilience and responsible citizenship, generate understanding of disaster risk, support mutual learning, share experiences. Encourage public and private stakeholders to actively engage in such initiatives, and develop new ones at local, national, regional and global levels."

Innovation and technology (para 25i):
"Enhance access to and support for innovation and technology as well as in long-term, multi- hazard and solution-driven research and development in disaster risk management."

2.7.2.2. Priority 2: Strengthening Disaster Risk Governance to Manage Disaster Risk

Clear vision, plans, competence, guidance and coordination within and across sectors as well as participation of relevant stakeholders are needed. Strengthening disaster risk governance is therefore necessary and fosters collaboration and partnership across mechanisms and institutions for the implementation of instruments relevant to disaster risk reduction and sustainable development.

Mainstreaming disaster risk reduction into health" (para 27a):

"Mainstream and integrate disaster risk reduction within and across all sectors. Review and promote the coherence and further development as appropriate, of national and local frameworks of laws, regulations and public policies."

Safety enhancing laws and regulations (para 27d):

"Encourage the establishment of necessary mechanisms and incentives to ensure high levels of compliance with existing safety-enhancing provisions of sectoral laws and regulations, including those addressing land use and urban planning, building codes, environmental and resource management and health and safety standards, and update them, where needed, to ensure an adequate focus on disaster risk management;"

Coherence of instruments and tools (para 28b):

Foster collaboration across global and regional mechanisms and institutions for the implementation and coherence of instruments and tools relevant to disaster risk reduction, such as for climate change, biodiversity, sustainable development, poverty eradication, environment, agriculture, health, food and nutrition and

others, as appropriate;"

Epidemics and pandemics (para 28d)

"Promote trans-boundary cooperation to enable policy and planning for the implementation of ecosystem-based approaches, to build resilience and reduce disaster risk, including epidemic risk".

2.7.2.3. Priority 3: Investing in Disaster Risk Reduction for Resilience

Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, countries and their assets, as well as the environment.

Safe hospitals and health facilities (para 30c):

"Strengthen disaster resilient public and private investment, particularly through structural and non-structural and functional disaster risk prevention and reduction measures in critical facilities, in particular schools and hospitals and physical infrastructures; building better from the start to withstand hazards through proper design and construction, including the use of the principles of universal design and the standardization of building materials; retrofitting and rebuilding; nurturing a culture of maintenance; and taking into account economic, social, structural, technological and environmental impact assessments."

Health system resilience and disaster risk management for health (para 30i):

"Enhance the resilience of national health systems, including by integrating disaster risk management into primary, secondary and tertiary healthcare, especially at the local level; developing the capacity of health workers in understanding disaster risk and applying and implementing disaster risk reduction approaches in health work; promoting and enhancing the training capacities in the field of disaster medicine; and supporting and training community health groups in disaster risk reduction approaches in health programmes, in collaboration with other sectors, as well as in the implementation of the International Health Regulations (2005) of the World Health Organization."

Access to basic healthcare services (para 30j):

"Strengthen the design and implementation of inclusive policies and social safety net mechanisms, including through community involvement, integrated with livelihood enhancement programmes, and access to basic healthcare services, including maternal, new born & child health, sexual & reproductive health, food security & nutrition, housing and education, towards the eradication of poverty, to find durable solutions in the post disaster phase and to empower and assist people disproportionally affected by disasters."

Life threatening and chronic diseases (para 30k):

"Include people with life threatening and chronic diseases in the design of policies and plans to manage their risks before, during and after disasters, including having access to life-

saving services."

Ecosystem and environment health (para 30n): levels.

"Strengthen the sustainable use and management of ecosystems and implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction;"

Animal health (para 30 p):

"Strengthen the protection of livelihoods and productive assets, including livestock, working animals, tools and seeds;"

Sendai Framework implementation (para 31e):

"Enhance cooperation between health authorities and other relevant stakeholders to strengthen country capacity for disaster risk management for health, the implementation of the International Health Regulations (2005) and the building of resilient health systems."

2.7.2.4. Priority 4: Enhancing Disaster Preparedness for Effective Response and to "Build Back Better" in Recovery, Rehabilitation and Reconstruction

The steady growth of disaster risk, including the increase of people and assets exposure, combined with the lessons learned from past disasters, indicates the need to further strengthen disaster preparedness for response, take action in anticipation of events, integrate disaster risk reduction in response preparedness and that ensure capacities are in place for effective response and recovery at all

People-centered early warning, communication and technological systems (para 33b):

"Invest in, develop, maintain and strengthen people-centered multi-hazard, multi-sectoral forecasting and early warning systems, disaster risk and emergency communication mechanisms, social technologies and hazard-monitoring telecommunications systems. Develop such systems through a participatory process. "

Safe hospitals (para 33c):

"Promote the resilience of new and existing critical infrastructure, including hospitals and other health facilities, to ensure that they remain safe, effective and operational during and after disaster in order to provide live-saving and essential services. "

Stockpiling (para 33d):

"Establish community centers for the promotion of public awareness and the stockpiling of necessary materials to implement rescue and relief activities."

Training (para 33f):
"Train existing workforce and voluntary workers in disaster response and strengthen technical and logistical capacities to ensure better response in emergencies."

Health data (para 33n):

"Establish a mechanism of case registry and a

database of mortality caused by disaster in order to improve the prevention of morbidity and mortality."

Mental health (para 33o):

"Enhance recovery schemes to provide psychosocial support and mental health services for all people in need."

2.7.3. International Conference on the Implementation of the Health Aspects of the Sendai Framework for Disaster Risk Reduction

An International Conference on the Implementation of the Health Aspects of the SFDRR was organized by the Royal Thai Government, United Nations Office for Disaster Risk Reduction (UNISDR) and the World Health Organization (WHO) on 10-11 March 2016, in Bangkok, Thailand. The Conference was attended by over 230 participants from around 50 countries, as well as representatives of key regional and international organizations, civil society groups, UN agencies and other stakeholders.

The Conference was held with the objective of assessing the current status and gaps for the integration of the health sector and the disaster risk reduction community; discussing different approaches and best practices of affected countries and identifying appropriate measures for the implementation of the health aspects in the Sendai Framework in a comprehensive, multi-disciplinary, multi-sectoral and all-hazards approach for disaster risk; and drawing recommendations and guidelines on how to implement the health aspects in the Sendai Framework. Seven (07) principles have been approved during the conference which are as follows;

Principle-1:
Promote systematic integration of health into national and sub-national disaster risk reduction policies and plans and the inclusion of emergency and disaster risk management programmes in national and sub-national health strategies.

Principle-2:
Enhance cooperation between health authorities and other relevant stakeholders to strengthen country capacity for disaster risk management for health, the implementation of the International Health Regulations (2005) and building of resilient health systems.

Principle-3:
Stimulate people-centered public and private investment in emergency and disaster risk reduction, including in health facilities and infrastructure.

Principle-4:
Integrate disaster risk reduction into health education and training and strengthen capacity building of health workers in disaster risk reduction.

Principle-5:
Incorporate disaster-related mortality, morbidity and disability data into multi-hazards early warning system, health core indicators and national risk assessments.

Principle-6:
Advocate for, and support cross-sectoral, trans-boundary collaboration including information sharing, and science and

technology for all hazards, including biological hazards.

Principle-7:

Promote coherence and further development of local and national policies and strategies, legal frameworks, regulations, and institutional arrangements.

2.7.4. National Disaster Management Plan (NDMP, 2012-2022)

The National Disaster Management Plan (NDMP), prepared based on the Act, aims at enhancing the capacity of the country to prepare for and respond to disasters by defining the measures to be considered necessary for disaster management. The NDMP identifies the roles and responsibilities of the stakeholders, including federal, provincial and district governments, community organizations, NGOs, businesses, and residents who are involved in the disaster management. Disaster management is one of the most important administrative measures for protecting the land and people's lives, welfare and property from disasters.

There are ten (10) priority areas set in the NDMP to be implemented during 2012-2022 which are enlisted as follows:

Intervention-1: Establish the Institutional and Legal System for Disaster Management

- Establish and function disaster management organizations at national, provincial and district level;
- Formulate disaster management operation plans for relevant organizations;
- Implement periodic meetings among the disaster management organizations to monitor the situations;
- Implement drills and training of disaster management activities in the organizations to improve their capacities.

Intervention-2: Prepare Disaster Management Plans at Various Levels

- Formulate and update disaster management plans at national, provincial, district and community or TMA;
- Develop hazard specific contingency plans;
- Develop sectoral disaster risk management operation in federal ministries, departments and authorities.

Intervention-3: Establish National Hazard and Vulnerability Assessment

- Conduct detailed multi–hazard vulnerability and risk analysis/assessments at national level;
- Conduct detailed multi–hazard vulnerability and risk analysis/assessments at local level;
- Conduct research and studies on impact of climate change on glaciers and ice cap.

Intervention-4: Establish Multi-Hazard Early Warning and Evacuation Systems

- Strengthen forecasting and early warning systems;

Intervention-5: Promotion of Training, Education and Awareness in Relation to Disaster Management

- Develop National Institute of Disaster Management to promote human resource development in the field of disaster management;
- Enhance the capacity of government agencies in charge of disaster management;
- Promote mainstreaming DRR through capacity enhancement of governmental officers;
- Develop the capacity of communities to cope with disasters;
- Raise people's awareness of disaster management.

Intervention-6: Strengthen Awareness Program on Disaster Risk Reduction at Local Level

- Enhance knowledge on disasters management in the general public;
- Establish safe evacuation places in the case of disaster situation;
- Implementation and disseminate CBDRM activities;
- Disseminate self-help and mutual help efforts in disaster management;
- Establish disaster mitigation measures incorporated with existing development program.

Intervention-7: Infrastructure Development for Disaster Risk Reduction

- Develop schools, hospitals and other important public facilities with safe against disasters;
- Protect important coastal facilities against disasters taking into account climate change;
- Enforce the building code in construction of buildings;
- Implement appropriate structural measures in flood prone areas taking into account comprehensive and integrated flood management plans;
- Enhance disaster risk management capacity in urban areas.
- Intervention-8: Mainstreaming disaster risk reduction into development
- Establish disaster risk reduction policies in National Development Plan and National Poverty Reduction Strategy;
- Set up sectoral guidelines on mainstreaming disaster risk reduction;
- Establish criteria to assess development projects from a risk reduction perspective;
- Improve technical capacity of federal and provincial governments to integrate risk reduction into development plans and programs.

Intervention-8: Establish National Emergency Response System

- Establish and strengthen warehouse or stockpiling system for storing food, medicine, relief supplies and equipment at strategic locations;
- Enhance emergency response capacities, such as emergency operation centers, Civil Defense and urban search and rescue teams in major cities;
- Establish a robust communication system and efficient transport and logistics mechanism to be used during emergency situations.

Intervention-9: Capacity Development for Post Disaster Recovery

- Prepare guidelines for post disaster recovery programs and activities;
- Develop capacity of stakeholders in post disaster recovery;
- Develop system and methodology for recovery needs assessment.

2.7.5. International Health Regulation (IHR, 2005)

The International Health Regulations (IHR) were adopted by the Health Assembly in 1969, having been preceded by the International Sanitary Regulations adopted by the Fourth World Health Assembly in 1951. The 1969 Regulations, which initially covered six "Quarantinable Diseases" were amended in 1973 and 1981, primarily to reduce the number of covered diseases from six to three (yellow fever, plague and cholera) and to mark the global eradication of small pox.

The purpose and scope of the IHR (2005) are "to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade."

The IHR (2005) contain a range of innovations, including:

- A scope not limited to any specific disease or manner of transmission, but covering "illness or medical condition, irrespective of origin or source, that presents or could present significant harm to humans";
- State party obligations to develop certain minimum core public health capacities;
- Obligations on States parties to notify WHO of events that may constitute a public health emergency of international concern according to defined criteria;
- Provisions authorizing WHO to take into consideration unofficial reports of public health events and to obtain verification from States Parties concerning such events;
- Procedures for the determination by the Director-General of a "public health emergency of international concern" and issuance of corresponding temporary recommendations, after taking into account the views of an Emergency Committee;
- Protection of the human rights of persons and travelers; and
- The establishment of National IHR Focal Points and WHO IHR Contact Points for urgent communications between States Parties and WHO.

By not limiting the application of the IHR (2005) to specific diseases, it is intended that the Regulations will maintain their relevance and applicability for many years to come even in the face of the continued evolution of diseases and of the factors determining their emergence and transmission.

The provisions in the IHR (2005) also update and revise many of the technical and other regulatory functions, including certificates applicable to international travel and transport, and requirements for international ports, airports and ground crossings.

Section 3

Key Interventions Proposed for The National Action Plan

Key Interventions Proposed for the National Action Plan

Introduction

As mentioned in the previous section that seven (07) principles have been recommended that could assist countries in systematic integration of Disaster Risk Reduction in the National Health Policies and Strategies. The detail of the principles has also been mentioned above under 2.6.3. The theme behind this integration is basically highlighting the importance of health aspects of the DRR in order to adopt a proactive approach to develop health as disaster resilient sector.

Pakistan being a signatory of the SFDRR has taken up the initiatives to develop a National Action Plan in principal by integration of DRR into Health sector by engaging the National Disaster Management Authority (NDMA) in close coordination of National Health Emergency Preparedness and Response Network (NHEPRN) under the Ministry of National Health Services Regulations and Coordination (NHSR&C) and with the support of Malteser International with financial support of German Federal Ministry of Foreign Affairs.

Using the seven (07) fundamental principles of SFDRR as guidelines to define various activities that would become a part of the National Action Plan, a consultative process has been initiated by the NDMA and NHEPRN to involve the provinces and engage all relevant Provincial stakeholders to actively participate in giving their respective feedback before finalization National Action Plan.

The first round of consultation was conducted from December, 2016 till January, 2017 in which the team from NHEPRN visited the Provincial Disaster Management Authorities and Health Directorates to get information on a toolkit that was especially developed for this purpose. The theme followed for visiting the Provincial Authorities was to:

- Give orientation to the provincial stakeholders on the Sendai Framework for DRR and the Seven (07) Principles constituted therein.
- Get a nomination from the Provincial Staff who would act as the focal person in development of the National Action Plan and will act as part of a consultative Process.
- Discuss main priority action areas required to be incorporated into the National Action Plan by consulting the provincial staff.

During the first phase the following consultations were conducted in different provinces:

At Federal Level:

I. National Disaster Management Authority (NDMA), Islamabad
II. National Health Emergency Preparedness and Response Network (NHEPRN), Islamabad
III. UNICEF Head Office at Islamabad

IV. WHO Office at Peshawar
V. Health Cluster at Peshawar
VI. UNFPA Office at Islamabad

At Province Level:

I. Provincial Disaster Management Authority Khyber Pakhtunkhwa Office at Peshawar
II. Provincial Health Directorate Khyber Pakhtunkhwa Office at Peshawar
III. Provincial Disaster Management Authority, Punjab Office at Lahore
IV. Provincial Health Directorate, Punjab at Lahore
V. Provincial Disaster Management Authority Sindh Office at Karachi
VI. Provincial Health Directorate Sindh Office at Karachi
VII. Provincial Disaster Management Authority Baluchistan Office at Quetta
VIII. Provincial Health Directorate Baluchistan Office at Quetta
IX. State Disaster Management Authority AJK at Muzaffarabad
X. State Health Directorate AJK at Muzaffarabad
XI. Gilgit-Baltistan Disaster Management Authority at Gilgit
XII. Gilgit-Baltistan Health Directorate at Gilgit
XIII. FATA Disaster Management Authority at Peshawar
XIV. FATA Health Directorate at Peshawar

During the first round, the approach to remotely collect inputs from provincial staff remained a challenge and any formidable inputs were not received that could be a part of the National Action Plan. Therefore, a second round of consultation was planned in the month of March, 2017 in the following provinces in a bid to involve all stakeholders to present their work with the PDMA and Health Authorities in order to obtain maximum inputs to integrate Health aspects into DRR:

I. Joint meeting with participants from Provincial Disaster Management Authority, Punjab, Health Directorate, Rescue 1122 and WHO at PDMA Punjab office at Lahore.
II. Joint meeting with participants from NHEPRN, PIMS, Islamabad Capital Territory Health Directorate, UNFPA and Malteser International at National Health Emergency Preparedness and Response Network (NHEPRN), Islamabad.
III. Joint meeting with participants from PDMA Khyber Pakhtunkhwa, FDMA, FATA Health Directorate, Rescue 1122, UNICEF, WHO and Provincial Health Cluster at PDMA Peshawar office.

Based on through discussion and follow-up with the focal persons from disaster management authorities and health directorates, the following priority interventions have been proposed under each principal:

3.1. Principle 1: Promote Systematic Integration of Health into National and Sub-national Disaster Risk Reduction Policies and Plans and the Inclusion of Emergency and Disaster Risk Management Programs in National and Sub-national Health Strategies.

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.1.1: Notify National and Provincial working group/steering committee to integrate DRR and health policies and strategies.	In order to integrate the DRR component into health policies, a proper steering committee is to be in place to oversee the entire process. Following needs to be done: ⊙ Agreement at the National and Provincial Level for the formation of a steering committee by the competent authority ⊙ Finalization of TORs of this steering committee by involving stake holders and international agencies, at the federal level ⊙ Notification of the steering committee by identifying the relevant personnel	NDMP Reference: 4.1.1 IHR Reference: Article 7.	NHSRC, NHEPRN, NDMA, P/F/GB/S DMAs, Provincial Health Clusters and Provincial Health Directorate	x		
3.1.2: Incorporate Health into DRR Sector through the revised National Disaster Risk	NDMA has developed NDMP (2012-2022) and National Disaster Risk Reduction Policy 2013. Health and Nutrition component is missing in the policy level document, which is very important	NDMP Reference: 4.2.3.	NHSRC, NHEPRN, NDMA, P/F/GB/S DMAs	x		

Proposed interventions	Explanation	Intervention are linked with	Potentials implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
Management Plan and National DRR Policy and legislations.	sector to deal in emergencies. As planning is always a dynamic process, therefore, it is suggested to incorporate Health& Nutrition in emergencies component in the revised NDMP and National DRR Policy. In this regard, following actions to be done: ⊙ Organize consultation workshop with the health, nutrition and DRR stakeholders for suggested interventions that can be included in the NDMP. ⊙ Take approval from NDMA to incorporate the interventions in the revised NDMP. ⊙ Disseminate the hard and soft copies to relevant ministries, and department.	IHR Reference: Article 16.	Provincial Health Clusters and Provincial and District Health Department			
3.1.3: Develop National, Provincial and District Level Health specific disaster risk management and emergency response plans.	According to National Disaster Management Act 2010, sector specific national, provincial and district level disaster management plans and contingency plan need to develop to cope with all types of disasters. In this regard, following actions need to be done: ⊙ Develop guidelines by the NHSRC	NDMP Reference: 4.2.3. IHR Reference: Article 16	NHSRC, NHEPRN, NDMA, P/F/GB/S DMAs, Health Clusters and Provincial and District Health Department	x	x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	together with NDMA for developing all level health and nutrition specific disaster management plans. ⊙ Use of MHVRA results for DRR planning of health facilities. ⊙ Conduct series of consultation meetings and workshops and validate the plans through proper consultation ⊙ Specify role and responsibilities for each organization for emergency response. ⊙ Dissemination of plans at the National, Provincial and District level.					
3.1.4: Develop Provincial and District level Health preparedness and Response Forces with close coordination of DMAs, PRCS and Health sectors.	Formation of a District Emergency Health Management Team (DEHMT) is highly essential for proper health preparedness and response during an emergency making Nutrition in emergencies an integral part of the TORs for this team For this purpose, following is required: ⊙ Identification of focal persons/criteria to be laid down at the federal and provincial level. ⊙ Formation of DEHMTs and their notification at all levels i.e. National	NDMP Reference: 4.9.2. IHR Reference: Article 47.	P/F/GB/S DMAs, Health Clusters, Provincial and District Health Department, PRCS and DDMA/Us	x		

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	and Provincial. ⊙ Capacity development of DEHMTs. ⊙ Linkage building with the disaster management authorities for regular coordination and conduct joint exercises and mock drills.					
3.1.5: Advocate DRR and health related policy makers at Political level for preparing and approval of the PC-I by the relevant Planning and Development department.	There is need for development of guidelines regarding integration of DRR into annual health and nutrition sector development plans especially at district level in the annual development plans for health sector. For this purpose, project proposal need to be developed in the form of PC-1, with proper Log Frames, Budgets and long term-short term targets. In order to formulate PC-1, advocacy is required at the decision making level by the federal and Provincial Health and Nutrition authorities.	NDMP Reference: 4.1.2. IHR Reference: Article 16.	Provincial Health Directorate and P&D department	X		

3.2. Principle 2: Enhance Cooperation between Health Authorities and other Relevant Stakeholders to Strengthen Country Capacity for Disaster Risk Management for Health, the Implementation of the International Health Regulations (2005) and Building of Resilient Health Systems.

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.2.1: Allocate human and financial resources for capacity development of health practitioners on disaster risk management and risk communication	The health professionals have been typically trained in dealing with health issues, however due to advent of frequent disasters, complicated health hazards issues arise and further leave severe impact on health facilities. Therefore, it remains a high priority to develop the capacity of health professionals in disaster risk management and risk communication to safe guard against health hazards and protect health assets during any emergencies. The main points to consider here are: ⊙ Identification of those health professionals that would serve as the DRM and risk communication focal persons. ⊙ Identification of the current needs of risk communication. ⊙ Identification of gaps in human resource for being trained in risk communication. ⊙ Programming and implementation of capacity building.	NDMP Reference: 4.5.2. IHR Reference: Article 42.	Provincial and District Health Department	x		

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.2.2: Establish District coordination mechanisms both horizontal and vertical between Disaster Risk Management Authorities and Health practitioners both at Government and non-government level and conduct an exact resource mapping at Province and District level. 4W matrix distribution and regular updating.	Each district has network of I/NGOs and CBOs working alongside the DMAs and district health department on various projects. Points to consider are: ⊙ The establishment of a criteria of district coordination mechanism at the provincial level to be implemented in respective districts. ⊙ Identification of respective personnel of health and disaster management departments that would serve the district coordination mechanism. ⊙ Conduct resource mapping exercise of all available health related resources available within a district that can be utilized during any emergency. ⊙ Build linkages among different networks by following standard SOPs for effective response during any disaster or health emergency. ⊙ Devise a Multi sectoral approach for coordination & implementation of DRR activities ⊙ Develop strong coordination mechanism and conduct regular meetings. ⊙ Regular updating and share 4W matrix with DMAs and Health practitioners.	NDMP Reference: 4.1.3. IHR Reference: Article 07.	District Health Department, WHO, UNICEF, UNFPA, UNAIDs, UNWOMEN, Health Clusters, and I/NGOs	x	x	x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Include health as integral part of national and district level disaster risk management platforms/coordination mechanisms					
3.2.3: Strengthen the Standing Core Committee of IHR by devising strong coordination through schedule meetings and ensure regular dialogue and involvement with the NDMA.	The International Health Regulation (IHR) has been established by the World Health Organization to ensure effective measures and capacities for prevention and limiting the risk of health threats and emergencies. Particularly the aspect of migrants and quarantine is of utmost importance that has been addressed properly in the IHR. Since Pakistan is strategically placed and its borders remain porous to migrants, it is highly desired to have an effective interprovincial steering committee in place. This inter provincial approach is required to ensure a well-organized coordination setup based on the guidelines provided by The IHR for effective implementation and take routine progress notes.	NDMP Reference: 4.1.3. IHR Reference: Article 53.	NHSRC, Provincial Health Directorate, WHO, Health Clusters and NHEPRN		x	x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	Following is essential: ⊙ Establishment of steering committee comprising of essential federal and provincial secretaries and Technical resource persons. ⊙ Effective coordination through regular meetings to take progress notes on provincial implementations. ⊙ Minutes of decisions taken therein to be disseminated.					
3.2.4: Cascade the implementation of IHR through District Level Health Committees/ establish task force at each district level.	The IHR is required to be implemented at district level by the steering committee decisions. The following is required: ⊙ Identification of volunteers that are community notables to be a part of a District Health Committee (DHC). ⊙ Establishment of a task force for IHR implementation under the DC and EDO (Health). ⊙ Establish linkages between the DHC & District Malnutrition Addressing Committee(DMAC). ⊙ Availability of IHR guidelines to the District Health Committees. ⊙ Sensitization of IHR guidelines to the DHCs.	NDMP Reference: IHR Reference: Article 42.	NHSRC, Provincial Health Directorate, WHO and NHEPRN	x	x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Conduct routine progress meetings on smooth implementation of IHR guidelines. ⊙ Note down the proceedings to be submitted to the provincial health departments through EDO/DC/DCO for taking up at the National Steering Committee Level (any noteworthy findings).					
3.2.5: Improving the linkages between the DMAs and health authorities through information sharing by the development of a Multi-sectoral Dash Board System to be rolled out provincial and district level	The information on health emergencies is dependent on a comprehensive disaster response. The linkage development between the DMAs, Health and Nutrition Authorities remains essential in order to share information and reduce the chances of duality of resources. Such data also helps the authorities for quick emergency response. Following is required: ⊙ Development of a multi-sectoral dash board system and development of indictors for tracking of Disaster response, DRR activities and health response for a complete picture within a district	NDMP Reference: 4.1.3. IHR Reference: Article 07.	District health Department, Health Clusters, and DDMA/Us		x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Establishment of a Control Room as part of a proper information management system and effective coordination to reduce duplication of efforts ⊙ Testing and implementation of dashboard system before rolling out ⊙ Availability of human and financial resources further to capacity development. ⊙ Routine update of information on dashboard reporting system and sharing of data at provincial and national level. ⊙ Regular meetings between DMAs and Health Authorities for effective information sharing. For this purpose, health clusters Nutrition working groups meetings can be called. ⊙ Minutes to be duly shared with all stake holders in order to avoid duplication of activities/ channelize resources towards an issue unaddressed. ⊙ Link to disaster loss database and ensure health information is included in these					

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.2.6: Sensitization of CSOs/CBOs/DMCs for taking the ownership of health facilities at their localities.	⊙ The role of community participation is again a major pillar in Primary Healthcare. The sensitization on ownership by the community can be the only source in ensuring quality of services at health facilities in the absence of public sector capacity to effectively manage them. For this purpose, the following is required: ⊙ Coordination meetings at the district health authorities with all stakeholders at a district level. ⊙ Requirement of health facilities within a district duly discussed. ⊙ Responsibilities allocated to CBOs/NGOs etc. working in that area for smooth running and sustainability of these health structures. ⊙ CBOs /NGOs develop their own action & contingency plans for community level response during disasters. ⊙ CBO/NGO staff to be trained on First Aid and allied disciplines. ⊙ Development of monitoring protocol by the district health authorities by engaging the local health staff (LHV/LHWs) for ensuring accountability	NDMP Reference: 4.5.4, 4.5.5. IHR Reference: Article 13.	District Health Department, Health Clusters, DDMA/Us, I/NGOs and CBOs		x	

3.3. Principle 3: Stimulate People-centered Public and Private Investment in Emergency and Disaster Risk Reduction, Including in Health Facilities and Infrastructure.

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.3.1: Conduct multi layered need and capacity assessment of health facilities for developing emergency response plans.	Before embarking on a journey to develop an emergency response mechanism to be implemented, a detailed study of healthcare facilities and need analysis is required to be conducted as a first step. Primarily the assessments need to be done in terms of what is available versus what is required viz.a viz: ⊙ Location of health facility ⊙ Infrastructure ⊙ Human Resource ⊙ Capacity Building ⊙ Equipment ⊙ Availability of essential medicines Availability of SOPs/Guidelines during emergencies	NDMP Reference: 4.3.1, 4.3.2. IHR Reference: Article 05.	NDMA, NHSRC, Provincial and District Level Health Department with the support of UN agencies as finding/ technical support	x	x	x
3.3.2: Develop revenue generation opportunities through public private partnership for health sector.	For any preparedness and response mechanism, the concept of community participation is critical to ensure its success in terms of ownership as well as self-sustainability. Besides private companies can play important role to engage them in different structural and	NDMP Reference: 4.8.3. IHR Reference: Article 14.	Provincial Health and Private Pharmaceutical Companies			

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	non-structural activities for integrating DRR into health with special focus on establishing DRR resilient health facilities in needed locations. The concept of Public Private Partnership can be established for; ⊙ Collection of funds/revenues through effective community mobilization/social marketing to promote philanthropy in order to develop preparedness and Response Systems in healthcare facilities by effectively engaging the local key opinion leaders/influencers ⊙ Subletting public health entities to private sector e.g. parking lots, lawns etc., that would help generate revenue required to sustain systems developed for an emergency response. ⊙ Involve the private sector to improve the resilience and safety of infrastructure of health facilities					

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	focusing on emergencies and supply medicines (which they manufacture) as per their policy for responding emergencies and on the supply chains, infection control equipment, logistics, telecommunications etc. ⊙ In case of emergency/disaster, the role of communities in assisting the smooth running of systems required in a healthcare facility. ⊙ Provision of equipment for handling mass causality incidences at hospital level with the help of Public/Private partnerships. ⊙ Organize training courses and capacity building activities by mobilizing private investments.					
3.3.3: Advocacy on evidence based initiatives for public private partnership at various levels; Public, Legislative and Private.	The Political well plays a crucial role in strengthening systems. Health Systems in Pakistan requires a commitment at the Public and Legislative level for which awareness needs to be created by: ⊙ Conducting seminars and awareness sessions for parliamentarians.	NDMP Reference: 4.8.2. IHR Reference: Article 14	NDMA, P/F/GB/S DMA/Us, NHSRC, and NHEPRN		x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Assistance in developing legislations through engaging experts that would help health systems strengthening during emergencies and disasters and duly vetted at the parliament.					
3.3.4: Enhance the safety functionality and resilience of critical health infrastructure and facilities by conducting safety assessments, strengthening the implementation of the Safe Hospital Initiative, and applying the principles of "Building back better" in recovery and reconstruction, in coordination with communities.	It is commonly observed that during disasters, health facilities damage badly and instead of providing healthcare facilities during emergencies, health practitioners suffered themselves and hospital remain ill functional to cope the emergencies. Therefore, requirement for safer and disaster resilient hospitals is of vital importance. For this purpose, public/private investments to develop disaster resilient hospitals can play vital role. The following functions can be added; ⊙ Multi-hazard, vulnerability and risk assessment of hospitals. ⊙ Based on assessment, necessary retrofitting can be done in selected hospitals. ⊙ Newly constructed and reconstructed hospital with concept of built-back-better mechanism.	NDMP Reference: 4.7.1. IHR Reference: Article 43.	Provincial and District level Health Department	x	x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.3.5: Development of a Referral Plan during Emergencies: shifting of patients through private ambulances from primary health facilities to secondary or tertiary care level health facilities.	Pakistan health care systems comprises of BHUs at the primary healthcare level catering to major component of the society. The PHC is not equipped to deal with emergencies, hence a robust referral mechanism needs to be in place in order to timely shift emergency cases to higher healthcare facilities where complicated cases can be accommodated. Moreover, the transport mechanism in the rural setup is seriously compromised leaving limited choices to the vulnerable patients to access timely healthcare. At Punjab, Azad Jammu and Kashmir, Gilgit-Baltistan and Khyber Pakhtunkhwa Provinces/regions, newly establishing Rescue 1122 has started these types of services very effectively. In this regard, following choices can be adopted: ⊙ Developing the current capacity of public sector response channels/ambulances by local health authorities by developing TORs of a minimum service delivery standard of an ambulance	NDMP Reference: 4.9.3. IHR Reference: Article 24, 32.	Provincial and District level Health Department	x		

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Development of a district committee duly notified by the local health authority comprising of notables/key opinion leaders for building linkages with the private transport industry to immediately fill in the gap during emergencies. Punjab government has recently started an initiative and in this regard, a model based on the lessons learnt can be adopted and replicated in other provinces. ⊙ Develop the role of philanthropy and private sector to complement the existing referral systems and develop mechanism for collaboration. ⊙ Identify potential vehicle owners within the community by the CBOs for possible role of transportation during emergency and disasters ⊙ Develop further capacities to strengthen the Rescue 1122 services to other Provinces. ⊙ Community Emergency Response Teams (CERT) has already been established in Punjab through Rescue1122 in selected Tehsils, which can be further enhanced to establish the CERT teams at Tehsil levels.					

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.3.6: Developing database of registering private and public sector ambulances throughout the provinces for effective emergency response.	For an effective response, a complete mapping exercise is crucial in order to ascertain the current capacity in the district and various organizations currently working (public and NGOs) along with their available resources. Only, when the entire district data is available is then the capacity to respond during emergencies and disasters can be established. For this following are essential: ⊙ Mapping for categorization of ambulances both public and private and development of a complete database. ⊙ Management systems of the database including infrastructure, Human Resource, Equipment, Capacity Development along with the funds to sustain this system. ⊙ Mapping exercise using the district administrations through the Provincial governance. ⊙ Capacity building of Public & Private ambulance owners & staff for their potential role and response during emergency and disasters.	NDMP Reference: 4.9.3. IHR Reference: Article 32.	Provincial and District level Health Department, NGOs and Private Sector		x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.3.7: Develop pool of master trainers on first id, mental health & psycho social support, , trauma management, search and rescue, fire safety and mass casuality incidents through public-private partnership in different industrial zones	During any emergency, the most critical part is to cater the mass casualty incidences, providing first aid, search and rescue, trauma management and psycho-social needs to the community to cope physically and mentally to deal with disasters as well as to deal with post-traumatic stress disorder as a post disaster scenario CMAM trainings are required to deal with the nutrition of Under five children and Pregnant & Lactating women during disaster. For this, following is required: ⊙ Selection of a pool of trainers. ⊙ Training/capacity building of these trainers. ⊙ Conduct psycho-social sessions at all levels by placing these trainers in high risk areas like industrial zones that are most likely to get affected during any emergency ⊙ Conduct regular exercises and drills on to test emergency plans including handling mass casualty incidences, providing first aid, Psycho-social first aid, search and rescue, trauma management etc.	NDMP Reference: 4.1.4. IHR Reference: Article 13.	Provincial and District Level Health Department, Health Clusters, I/NGOs, PRCS and Private sector.	x	x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.3.8: Establishment of waste disposal management System of hospital (Bio-hazard wastes) and industrial wastes through public private partnership by engaging different companies as part of corporate social responsibility.	Bio-hazard wastes can cause serious threats to lives and health of humans. A proper disposal mechanism is essential to ensure the bio chemicals-industrial waste is done away with in a systematic manner to lower the risk and danger to human lives. The industries can be engaged properly for the development of this system through the corporate social responsibility and applied in all sectors that can pose danger due to chemical waste. Moreover, tender the hospitals waste management on regular basis and involve private sector for doing it so. For Routine medical waste disposal, ensure proper incinerators facilities at all health facilities.	NDMP Reference: 4.7.1. IHR Reference: Article 46.	Provincial and District Level Health Department, NGOs and private Sector	x	x	
3.3.9: Privatization of diagnostic systems including CT Scan/MRI through outsource	The diagnostic facilities remain a challenge in Pakistan health care system. In order to ensure the continued services, partnerships can be considered with various private healthcare providers for	NDMP Reference: IHR Reference: Article 43.	Provincial and District Level Health Department, NGOs, Hospitals	x	x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
mechanisms for availability of services during emergencies or Establish mechanism to use private sector diagnostic systems during emergencies	the provision of diagnostic healthcare facilities that can be operational on behalf of the public sector during emergencies and disasters. For this purpose; ⊙ Proper mapping of available provincial/district level diagnostic facilities is required. ⊙ Partnerships/MOUs to be inked between local district health authorities with private diagnostic facilities to ensure provision of basic minimum facilities. ⊙ Referral networks to be established between the health facilities and the labs and availability of discount schemes at the private labs for patients referred through public setups by signing MOUs between private and public health officials		Administration and Private Sector	x	x	
3.3.10: Plan/Mechanics for conversion of Public park/stadium or	During any emergency or disaster, the provision of space to accommodate emergency patients remains a basic challenge. Plan at the district government level to first identify and	NDMP Reference: IHR Reference: Article 43.	Provincial and District Level Health Department, NGOs, Health Clusters and Private Sector		x	x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
any empty space into a mobile hospital/health centers by outsourcing the services like involving I/NGOs and private companies.	then label public recreational/empty spaces to be converted to an emergency healthcare site is required with the assistance of local NGOs and private sector.					
3.3.11: Availability of pre-fabricated health structures that can be established in emergencies in line with evidence based success models.	In order to save the construction costs, the availability of pre-fabricated structures has been known to act as success models in establishing an emergency field medical facility. These structures can be sponsored by various corporate sectors/donors and can be placed in hospital compounds to act as auxiliary units.	NDMP Reference: 4.7.1. IHR Reference: Article 12.	Provincial and District Level Health Department, NGOs and Private Sector	x	x	
3.3.12: Establish warehouses to support health facilities at district level and replicate Punjab's government recently established a medical store depot at Multan and Rawalpindi.	Medical warehousing is a complex mechanism required to ensure the timely provision of medicines and equipment. Development of warehouses within hospital parameters can be useful in not only making use as emergency wards but also to store equipment like beds, and medicines during any emergency.	NDMP Reference: 4.9.1. IHR Reference: Article 12.	Provincial and District Level Health Department, NGOs and Private Sector		x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.3.13: Develop & design checklists for the construction of new health facilities in order to ensure quality and resilience.	For the construction of all healthcare facilities, a minimum service delivery standard is required to be established and institutionalized to ensure quality healthcare. Key choices can be; ⊙ Develop guidelines for risk and safety assessment. ⊙ Strengthening of target facilities by retrofitting and reconstruction. ⊙ Piloting health facilities as model for future replication. ⊙ Involve NESPAK or other competent authorities to design disaster resistant health facilities.	NDMP Reference: 4.7.3. IHR Reference: Article 43.	P&D, Provincial and District Level Health Department, NGOs and Private Sector	x		
3.3.14: Allocation of sectoral budget for disaster and emergency risk management in the Annual Development Plan (ADP) for health department.	With the current allocation of budgets in healthcare, it is not possible to develop and sustain a health emergency system in the country. A proper feasibility study along with estimated budgets duly worked out by the international organizations is required to be prepared and then placed at the legislative level to get endorsed by the parliament to get it included in the annual development plan of the country	NDMP Reference: 4.2.3. IHR Reference: Article 44.	P&D, Provincial and District Level Health Department, NGOs and Private Sector			x

Proposed interventions	Explanation	Intervention are linked with	Potentials implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.3.15: Promote investment in research and development to enhance innovation by using of modern technologies and modelling for managing disaster risks including for biological hazards, and other human induced hazards and threats.	There is dire need to regularly conduct scientific research to investigate the spread of pandemic and epidemic diseases during and after natural and human induced emergencies. Such research studies are very crucial in terms of climate change and its impact on healthcare system. The spread of biological hazards, its investigation and recommendations will provide opportunities for future plan to control over such diseases during and after emergency/disaster. In this regards, private sector can be mobilized to promote their investments. Invest and promote research and development activities for health emergencies preparedness and response such as investment in vaccines, treatment and diagnostic tools research.	NDMP Reference: 4.3.3. IHR Reference: Article 46.	Medical Universities, Provincial Health Department, Health Clusters, WHO and other UN Organizations	x	x	x
3.3.16: Promote ownership of communities for strengthening the health facilities.	Community participation is the key to success of a quality healthcare mechanism in any society, especially during an emergency. Normally committees like Village Organizations (VOs), Community Based Organizations	NDMP Reference: 4.5.4, 4.5.5.	District Government, District health Department, District Health Clusters,	x	x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	(CBOs), Local Support Organizations (LSOs) are available or can be established and built their capacities for regularly inspecting and put forth recommendations to ensure ownership in close coordination with the district and tehsil level health departments. Malteser International has established village health committees in Peshawar under a health project and it was a great supporting tool from all aspects e.g. planning, implementation, monitoring, coordination with district Nazim office etc. Similar committees can be constituted across the country at each UC level, and health department may notify them, so they should be a great support at the community level. They also trained these committees on disaster preparedness, search & rescue and first aid.		DDMA/Us, and Committees available at grass root levels			
3.3.17: Mapping the investment opportunities in health and DRR for interested stakeholders of private sector.	By mapping the potential donors and stakeholders to promote and support the investments in emergency healthcare, a proper exercise is required to be conducted by engaging a multi layered approach.	IHR Reference: Article 44.	P/F/GB/S/DMAs, Provincial Health Directorates, District Health Department and DDMA/Us	x		

Proposed interventions	Explanation	Intervention are linked with	Potentials implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	The development of a proper communication strategy for engaging public private partnership like multi-national companies and big brands is essential for their effectively engagement to support the emergency response network.					
3.3.18: Engage the telecom sector for communication in case of emergencies and disasters.	The concept of cash transfer program/easy paisa by various emergency services providers has been playing a pivotal role in catering to the needs of the vulnerable population during emergencies. Known humanitarian organizations like Pakistan Red Crescent Societies has ben efited greatly with joint ventures with various telecom companies. The same needs to be replicated through District and Provincial government setups especially in the high risk areas. Moreover, the mass population SMS service to send out alert signals also needs to be considered and can be of great value.	NDMP Reference: 4.9.3. IHR Reference: Article 07.	Private companies engaged in telecommunications, P/F/GB/S DMAs and Provincial Health Departments			

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.3.19: Establishment of mobile health units that can be beneficial in emergencies and disasters.	Many countries have mobile health setups that are operational during emergencies. The Punjab government has utilized these not only within the Province but also during the mass Temporary Displaced Population influx and Dengue operation in Khyber Pakhtunkhwa. These MHUs are fully functional with emergency health response units capable of conducting: ⊙ Minor Operations/surgeries ⊙ Deliveries ⊙ Eye examination ⊙ Fully functional OPD ⊙ Dispensaries ⊙ Laboratories ⊙ X-ray/Ultrasound units The acquisition of these MHUs can be done through effective partnerships with various donors/Corporate Sector and available at Provincial Level, ready to be deployed at any place where an emergency takes place within a span of one day. The Provincial chapters of Pakistan Red Crescent Society offices can be capacitated and given task to obtain Mobile Health Units through donor funding and deploy in case of emergencies.	NDMP Reference: 4.7.1. IHR Reference: Article 13.	Private companies, District Health Departments and District Government	x	x	

3.4. Principle 4: Integrate Disaster Risk Reduction into Health Education and Training and Strengthen Capacity Building of Health Workers in Disaster Risk Reduction.

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.4.1: Advocacy on mainstreaming DRR into health education and training.	Advocacy is required at all levels and needs to be addressed by engaging a proper media campaign duly supported by international agencies as well as engage consultants to work in close coordination with WHO and other health agencies to mainstream DRR into Health education and training. In this regard, the following activities can be performed; ⊙ Develop guidelines and standard tools on how to mainstream DRR into health facilities ⊙ Conduct orientation workshops with the support of NDMA and NHEPRN at National level. ⊙ Conduct orientation workshops with the support of PDMAs and Health Ministries at Provincial level. ⊙ Orientation workshop for media personal (Electronic and print media) to engage for wide dissemination.	NDMP Reference: 4.5.3. IHR Reference: Article 12.	NHSRC, NHEPRN, NDMA, P/F/GB/S DMAs, Provincial Health Ministries, Health Clusters, WHO, UNICEF, UNFPA and media Universities and education institutes	x		

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.4.2: Initiate programmes on capacity building of local health workers by developing pool of master trainers including LHWs/LHVs/TBAs/ Community health workers, community volunteers etc. on emergency and disaster response management, with development of a training toolkit.	Community health workers (CHWs) are actively engaged at community level by providing healtcare facilities at door steps. CHWs can play vital role on mobilizing communities and can be engaged by playing their role, before, during and after the disasters. As per the availability of health system's personnel within a community, a systematic education system to impart the concepts of DRR and its mainstreaming into health has to be planned with the following points considered: ⊙ Develop training toolkits on role of CHWs for integration of DRR into health sector at community level. ⊙ Conduct formative assessment for need of DRR training in community in order to find out the exact requirement. ⊙ Conduct TOT of the trainers by district health department/Provincial level in a phase wise manner. ⊙ Identify master trainers through various TOT-Health focused DRR trainings.	NDMP Reference: 4.9.2. IHR Reference: Article 13.	District health Department, NGOs, Health Clusters, Tehsil Administration ,WHO, UNICEF, UNAID, UNFPA, UNWOMEN, WB and ADB Universities and education institutes	x	x	x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Organize refresher courses to be conducted every year. ⊙ Conduct regular mock drills and simulation exercises with DDMC, UCDMCs and health DRR committees. ⊙ Develop alumni database of participants and master trainers.					
3.4.3: Incorporate emergency and disaster management in the curriculum for the health practitioners especially in institutions offer programmes for LHSs/LHVs and LHWs	In order to come up with a sustainable capacity development approach for DRR into health and nutrition, it is necessary to make contents of DRR a part of HCPs curriculum, in curricula of medical undergraduate, high school students (grade 9 & 10) and institutionalize it. This will be beneficial in: ⊙ Capacity development of new staff/under training staff. ⊙ Refresher for the staff already in place as part of continued medical education (CME). ⊙ The activities laid down under this would be as follows: ⊙ Review the existing material for LHVs/ LHWs and the material on DRR that is to be incorporated in LHV/LHW manual.	NDMP Reference: 4.8.2. IHR Reference: Article 12.	District Health Department, NGOs, Tehsil Administration , PRCS, Health clusters, Social Welfare Department, Civil Defense Department, WHO, UNICEF, UNAID, UNFPA, UNWOMEN, WB and ADB Universities and education institutes	x	x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Share final draft with all stakeholders for review and comments. ⊙ Finalization of course contents. ⊙ Designing and printing of the manual. ⊙ Institutionalization of the manual at the training sites of the LHSs/LHVs/LHWs. ⊙ Build linkage with the DRR authorities to train the HCPs in the relevant sections incorporated in the curriculum. ⊙ Orientation session for school/college/university students across the country in collaboration with PDMA/Provincial health offices to plan such activity at district level through DDMC & DHO. ⊙ Workshops for deans of universities, and heads of education institutes					
3.4.4: Develop pool of Master Trainers for conducting community level trainings on Health focused DRM with	CADRE programme has been institutionalized in Pakistan through NDMA/NIDM and PRCS since 2009 under PEER programme, which can further be strengthened by engaging more organizations and communities.	NDMP Reference: 4.9.2. IHR Reference: Article 13.	District Health Department, NGOs, Health Clusters, Tehsil Administration, PRCS,	x	x	x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
especial focus on Community Action for Disaster Response (CADRE).	Following are recommended: ⊙ Review of training curriculum available with PRCS. ⊙ Conduct basic courses on CADRE and identify potential trainers through set qualifying criteria. ⊙ Conduct TOT on CADRE for potential trainers to make them master trainers. ⊙ Conduct District wise trainings on CADRE through MTs. ⊙ Provide emergency response kits to CADRE team for effective responses.		Rescue1122, WHO, UNICEF, UNAID, UNFPA, UNWOMEN, WB and ADB Universities and education institutes			
3.4.5: Conduct Hospital Preparedness for Emergencies (HOPE) courses throughout the country following the PEER standards.	During any hazard or emergency, there is a massive influx of injured patients that need to be dealt with on priority. In such a condition, the most important units of healthcare are supposed to be functional on all the hospital premises and the corridors and extra spaces are converted into emergency wards. All this is done in a standard protocol to be prepared for any emergency. The HOPE course is expected to reduce further mortality and by channelizing all the available	NDMP Reference: 4.9.2. IHR Reference: Article 13.	NHSRC, NDMA, NHEPRN, District Health Department, Health Clusters, Various Hospitals, I/NGOs, Rescue1122, WHO, UNICEF,	x	x	x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	resources towards a single response mechanism unit. In this regard, HOPE programme has been institutionalized in Pakistan through NDMA/NIDM and NHEPRN since 2009 under PEER programme, which can further be strengthened by organizing more courses on HOPE. Following is required: ⊙ Prepare the HOPE SOPs at the federal level by the NHEPRN. ⊙ Review and update of the HOPE training curriculum available with NDMA/NIDM/NHEPRN. ⊙ Conduct basic courses on HOPE and identify potential trainers through set qualifying criteria. ⊙ Conduct TOT on HOPE for potential trainers to make them master trainers. ⊙ Conduct District wise trainings on HOPE through MTs for target hospitals.		UNAID, UNFPA, UNWOMEN, WB and ADB Universities and education institutes			
3.4.6: Capacity building in Hospital Incident Command	Hospital incidents usually go unreported due to non-availability of the standard protocols and limited control of the	NDMP Reference: 4.1.4	NDMA, NHEPRN, District Health		x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
System (HICS) and conduct regular exercises of HICS.	district health regulatory authorities. Following is to be done: ⊙ Organize series of training courses on Hospital Incident Command System (HICS) for hospital staff. ⊙ Formation of HICS teams at various hospitals. ⊙ Develop links with Health department and respective DMAs and other stakeholders. ⊙ Availability of HICS checklist/format by the district government to all HICS personnel. ⊙ Coordination by the district health authorities to conduct regular meetings of HICS. ⊙ Conduct regular drills and simulations on HICS to keep on improving to handle MCIs.	IHR Reference: Article 13.	Department, Health Clusters, Various Hospitals, I/NGOs, Rescue1122, WHO, UNICEF, UNAID, UNFPA, UNWOMEN, WB and ADB Universities and education institutes			
3.4.7: Orientation and exposure visits of health practitioners to different countries	International trainings/capacity building is very important in order to ascertain the latest trends and evidence based interventions. The Government of Pakistan lacks funds to support the senior staff members to get such exposure,	NDMP Reference: 4.5.2. IHR Reference: Article 14.	NHSRC, NDMA, NHEPRN, Provincial Health Ministries,	x	x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
on DRR mainstreaming into health sector.	hence following is to be done: ⊙ Identification of international trainings/seminars in a year at federal/provincial level. ⊙ Identification of personnel at federal and provincial level to be trained/sensitized for international training each year. ⊙ Arrange funding from UN and other agencies for each year at the federal level. ⊙ Establish an implementation program of learned practices upon returning from training programs. ⊙ Develop a pool of public health in emergency practitioners.		WHO, UNICEF, UNAID, UNFPA, UNWOMEN, Health Clusters, WB and ADB			
3.4.8: Register all health workers at provincial and district level and further provide phase wise trainings from basic to advance level.	The healthcare setups in Pakistan are mostly un-regulated and the staff present outside the domain of public health facilities remains un-registered with the district health authorities. This results in a much compromised health service delivery. Following are required at to streamline data and assure quality in	NDMP Reference: 4.5.4. IHR Reference: Article 48.	NHEPRN, Provincial and District Health Departments and health Clusters	x	x	x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	health services: ⊙ Develop database of alumni who attended trainings and workshops. ⊙ Availability of data collection system and storage. ⊙ Collection of information from district health department on all healthcare providers within a district. ⊙ Share this information with the provincial Health setups. ⊙ Onward sharing of this information at the federal data base. ⊙ Capacity building program initiation at the National/Provincial and District level by involving international agencies and stake holders.					
3.4.9: Conduct series of trainings on Communicable Disease Control (CDC) for wide dissemination on Health Directorate Punjab model.	Communicable diseases can be a source of threat for a mass spread in a community and has to be actively contained by taking prompt measures laid down in IHR 2005. The Punjab government has already rolled out a program in this regard. Following are required to be done: ⊙ Availability of Punjab model at health directorate of all provinces.	NDMP Reference: 4.5.5. IHR Reference: Article 23.	Provincial and District level Health Department, WHO, health Clusters and Private Pharmaceut-ical companies	x		

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Replication of the Punjab Model to other provinces/regions. ⊙ Monitoring of the replication process by the provincial health department. ⊙ Sensitizing and training on CDC for all registered HCPs by engaging an international donor.					
3.4.10: Develop mobile application to access all the health workers in case of emergency and disaster.	Dashboard reporting system has recently been introduced at various levels that gives a real time information on the implementation of health response. Following are required to be done: ⊙ Development of a mobile application with the help of cellular companies and funding by various donors/possibility of CSR by service providers. ⊙ Registration of all HCPs by the health directorates on this application. ⊙ Mass SMS service to be explored province wise through this application.	NDMP Reference: 4.9.3. IHR Reference: Article 07.	Pakistan Telecomm-unication Authority, NDMA, NHSRC, NHEPRN, Provincial Health Departments			x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.4.11: Design/replicate Dukh Bant / Mulakat / counseling programs in the disaster struck areas.	Post-Traumatic Stress Disorder and Stress Management has been found to be very detrimental to long term health aspects. It has been proven that by letting out one's grief to another person greatly helps. This process is known as Catharsis in medical terminology. Following needs to be done for any post disaster scenario: ⊙ Establishment of a District Health Committee comprising of various segment of a community. ⊙ A Master plan to gather community members at one place in case of a hazards/threats. ⊙ Design a routine meeting headed by district health department focal person. ⊙ Access to all community members for approaching this setup for grievance sharing. ⊙ It can also be done in organization for under pressure staff during emergencies & disasters.	NDMP Reference: 4.1.3. IHR Reference: Article 07.	Provincial and District level Health Departments		x	
3.4.12: Revisit the curriculum of Pakistan Medical	Nursing care remains a great challenge in Pakistan community. The Nursing Colleges do not teach management as a	IHR Reference: Article 12.	Pakistan Nursing Council,		x	x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
Schools and Nursing Council in the disaster and emergency management perspectives.	course and senior Nurse Managers (grade 17-20) are ill equipped with management principles essential to manage an emergency response. Following is required: ⊙ Conducting Training Needs Analysis at colleges of nursing. ⊙ Replicate Punjab Health Sector Reforms model of training senior nurse managers to deal with emergency & disaster management.		Health Departments at Provincial level			
3.4.13: Strengthening of the capacity of the Medical First Aider through refresher courses.	In order to save a human life, one doesn't have to be a doctor. Simple First Aid techniques can be beneficial in pre hospital care before a patient is shifted to a medical facility. Refresher courses can be arranged for all those volunteers who are interested to take part in First Aid training and involvement like Pakistan Red Crescent Societies can be of benefit and value. Besides NDMA/NIDM, Rescue1122 Punjab has been engaged under PEER programme to conduct courses on Medical First Responders (MFR). The same courses can be replicated through concept of MTs all over the country.	NDMP Reference: 4.1.4. IHR Reference: Article 13.	NHEPRN, PRCS, Rescue1122 from Punjab, KP, G-B and AJK		x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.4.14: School health program needs to include in textbook and advocate PIT/PITE for DRR activities in their teacher trainings.	All students need to know the importance of DRR Activities and these need to be incorporated into the curriculum of the text books of children. School Health Safety projects are currently being run by organizations like Pakistan Red Crescent Societies and the same can be replicated at provincial by incorporating guidelines into the text books.	IHR Reference: Article 11.	NHEPRN, PRCS, Rescue1122 from Punjab, KP, G-B and AJK			x
3.4.15: Establish a resource hub at each district health department to cover health hazards.	The availability of warehouse that can be made use of for medical supplies and equipment has remained a challenge in the current health setup of Pakistan. Establishment of hubs and such warehouse would be very useful in case of emergency from where the equipment can be immediately deployed to cover medical emergencies. A proper plan and funding mechanism has to be in place for its development and sustainability.	NDMP Reference: 4.6.1 IHR Reference: Article 15.	NHEPRN, PRCS, Rescue1122 from Punjab, KP, G-B and AJK			x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.4.16: Data base system of health directorate is needs to be strengthened and link with provincial/region levels DMAs.	As mentioned earlier, the application for registering HCP data province wise has to be developed and further linked with the Federal and Provincial DMAs for a comprehensive response during an emergency.	IHR Reference: Article 47.	NHEPRN, Provincial Health Department and Disaster Management Authorities		x	

3.5. Principle 5: Incorporate Disaster-related mortality, Morbidity and Disability Data into Multi-hazards Early Warning System, Health Core Indicators and National Risk Assessments.

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.5.1: Development of health threats/Disease Early Warning System at all Provinces and linkage with DMAs.	The concept of DEWS has been introduced by WHO that helps in epidemiological study of incidence and disease prevalence in any community. This helps in preventing the spread of diseases during emergency and timely check of medical emergencies. The development of DEWS. Following is	NDMP Reference: 4.4.3. IHR Reference: Article 05, 06.	Provincial Health Department, P/F/GB/S DMAs, WHO and Health Clusters.	x	x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	required to be done: ⊙ Strengthening of DEWS system in the country including HR and equipment. ⊙ Provision of HR and its capacity building by securing funding from donors. ⊙ Implementation of routine DEWS and data collection. ⊙ Linkages building with the Disaster Management Authority and its disaster loss databases, risk profiling and risk assessment to share and exchange information collected by the health systems and DRM in order to ascertain the level of threat during any disaster. ⊙ Develop linkage of District level DEWS data with the provincial Hub or a dash board for immediate allocation of resources and response. ⊙ Ensure access and use of weather and climate information and its impact on health					
3.5.2: Analysis, interpretation, feedback on DEWS	Establishment of DEWS alone will not be beneficial without the technical inputs of the international agencies and experts.	IHR Reference: Article 05.	Provincial Health Department,		x	x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
needs to be strengthened and coordination with WHO for real time monitoring.	A proper analysis of information would be required by technical agencies like ministry of health with support from WHO to formulate interventions and reduce the threat of mortality and morbidity. For this following will be required: ⊙ Routine sharing of information with WHO and stake holders at provincial and federal level. ⊙ Coordination with WHO team in Pakistan for monitoring. ⊙ Analysis and sharing of information at all levels in order to continuously identify and rectify the gaps in the system.		P/F/GB/S DMAs and WHO			
3.5.3: Private health institution needs to be covered in DHIS by laws and regulations.	As per health information system in the country, the district health department collects the district health statistics and shares with the Provincial Health Authorities for onward sharing with the National Authorities. This system is routinely conducted as part of the reporting at the international level under various obligations. In this setup, the missing link is the	IHR Reference: Article 45.	Provincial and District Health Department, PDMAs and WHO		x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	private healthcare providers from where the data does not flow into the district health information system. Following is required: ⊙ Mapping of all available healthcare setups operating in the districts by the DHO office. ⊙ Sharing of this information at the Provincial and National level. ⊙ Linkage building with the private healthcare setups. ⊙ Rigorous monitoring setups by the district health departments.					
3.5.4: Conduct Multi-Hazard, Vulnerability and Risk Assessment (MHVRA) of Health threats/Facilities at Provincial and District level	MHVRA is fundamental steps for health risk reduction planning and implementation. It is one of important planning tools which support decision makers for wise decision on risk reduction. Following activities to be done for MHVRA: ⊙ Capacity building of the health practitioners at Provincial level for conducting MHVRA of target districts. ⊙ Following standard guidelines of the NDMA for MHVRA.	NDMP Reference: 4.3.2. IHR Reference: Article 05.	NDMA, Provincial and District Level Department with the support of UN agencies as finding/technical support	x		

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Include indicators for disaster risk management in minimum health core indicators. ⊙ Collect and integrate disaggregated data on hazards exposures, vulnerabilities and capacities for all hazard risk assessment, including base-line data for planning and monitoring purposes. ⊙ Include biological hazards and zoonotic diseases as well as chemical and radiation hazards in disaster risk assessment and multi-hazard early warning systems. ⊙ Develop atlases of health facilities and its distribution. ⊙ Rank health facilities risk wise and its wide dissemination.					

3.6. Principle 6: Advocate for, and Support cross-sectoral, Trans-boundary Collaboration Including Information Sharing, and Science and Technology for all Hazards, Including Biological Hazards.

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.6.1: Develop information sharing mechanism in IDP/TDP camps established from Afghanistan and Kashmiris refugees, in FATA/Khyber Pakhtunkhwa and AJK	Pakistan has seen a recent migration of population taking place due to the ongoing surgical strikes in the Northern Borders of the country as part of fighting against extremism. Similarly, cross border terrorism and insurgencies in Kashmiris enforcing migration from Indian held Kashmir into AJK. Due to collateral damage, the population in the Federally Administered Tribal Areas, Khyber Pakhtunkhwa, Azad Jammu and Kashmir and Afghanistan has moved to different camps established by the government. Since, due to security concerns, there is limited access to the humanitarian organizations into these areas, very few setups that the army allows are being able to work there. This leaves a big gap in epidemiological disease surveillance, a threat to healthcare, hence, the following is required: ⊙ Establishment of Information collection system at these IDP camps.	NDMP Reference: 4.1.3. IHR Reference: Article 31, 40.	NDMA, NHEPRN, P/F/GB/S DMAs and Provincial Health Departments of KP, FATA, and AJK government	x		

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ Information sharing by involving local district health authorities, commissionrate of Afghan refugees and army. ⊙ Regular coordination to discuss areas of cooperation. ⊙ Regular monitoring and surveillance in IDPs camps already established in different parts of the country.					
3.6.2: Establishment of Emergency preparedness and Response Centers (ERCs) along the Line of Control (LoC) in AJK.	The border area of Kashmir has a line of control that divides the two countries India and Pakistan. Here, the cross firing is constantly taking place causing damage to life and property. It is critical to establish an emergency service that would cater to the local population and promptly address the health needs, including establishment of first aid service as part of pre hospital care; ⊙ Establishment of Emergency Response Centers along the Line of Control i.e.! Barnala, Samahni, Fatehpur, Khuiratta, TattaPani, Abbas Pur, Hajira, Haveli, Mumtaz Abad, Khursheed Abad, Hattian, Leepa, Sharda, Athmaqam, Naseerabad.	NDMP Reference: 4.9.1. IHR Reference: Article 31.	SDMA, Pak Army, AJK Civil Defense, PRCS, Rescue1122 and Respective District Government		x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
	⊙ The Emergency Response Center will be provided with equipment and facilities necessary for a standard emergency response center including emergency ambulances, fire vehicles, and bomb disposal vehicle with operators and professionals. ⊙ The operational and maintenance of these centers will be the responsibility of the Civil Defense and Rescue1122. ⊙ During peace time the centers will provide the response to any kind of local emergency e.g. road accident, fire, building collapse, flood, landslide etc. as per standard SOPs and provide trainings to the Community Emergency Response Teams/ Committees.					
3.6.3: Assessment of 65 Check Points for entry into Pakistan. Presently the Government	Pakistan in all has around 65 check points from where the population can migrate into the country. Although, these are not usually manned round the clock, it remains essential to assess these check points in terms of vulnerability to health and disasters.	IHR Reference: Article 23, 31, 40.	Pak Army, Provincial and District Government of Punjab, KP, G-B, AJK and FATA, DDMA/Us			x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
recognizes two (2) formal check points out of 67. The remaining 65 check points still need to be assessed and recognized.	The IHR 2005 specifically addresses this issue. Essential is to implement the IHR 2005 in the context of Pakistan and adopt measures laid down therein.					
3.6.4: Establish / Strengthen the Inter Provincial Committee to support cross-sectoral collaboration and information sharing (As per the WHO's IHR implementation currently under development)	The coordination of provinces with the federal government and the other provinces is highly essential to implement the IHR 2005 and effectively check the flow of patients into the country. This can be done by: ⊙ Establishment of an Inter Provincial Committee that would support the cross sectoral collaboration. ⊙ Sharing of information relevant to all stake holders.	NDMP Reference: 4.1.1. IHR Reference: Article 12.	Provincial Health Department, WHO and P/F/GB/S DMAs		x	

3.7.Principle 7: Promote Coherence and Further Development of Local and National Policies and Strategies, Legal Frameworks, Regulations, and Institutional Arrangements.

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.7.1: Appoint DRR experts in the NHSRC and Provincial health directorates for integration of the DRR component into health sector.	The government of Pakistan lacks expertise within the available resources and requires the assistance of international development sector to assist its relevant ministry to develop and integrate the DRR Component into the health sector. This expertise is to be in the form of consultants that would support in integrating DRR into health programmes based on international guidelines and policies. The entire process may take a considerable amount of time owing to the consensus building at all provincial level as well as endorsement at the Federal Level. The DRR experts will support in following activities; ⊙ Organize consultation workshops on mainstreaming. ⊙ Formation of Provincial and District level working groups. ⊙ Develop TORs and SOPs for the working group. ⊙ Develop mechanism on how to mainstream DRR into health sector.	NDMP Reference: 4.8.2. IHR Reference: Article 13.	NHSRC, NHEPRN, NDMA, P/F/GB/S DMAs and Provincial Health Department		x	

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.7.2: Developing of Provincial Legislatures e.g. Pakistan Public Health Act 2010 in Draft form is available and it couldn't come into act due the devolution of health portfolio to provinces. Now the provinces need such legislations.	Until 2011, the role of federal government was strengthened in terms of decision making. However, a decentralization / devolution process took place as part of the 18th amendment in the constitution, on account of which, health primarily became a provincial subject. This devolution has created certain gaps that need to be fulfilled, one remaining the policies and Acts to be fully implemented, since provinces have now their own autonomy. Each provincial set up has its own reforms and Acts, and there is no uniformity of services. There is still a dire need of a minimal service deliver standard (MSDS) to bring about standardization in the healthcare delivery, especially during any emergency or hazard. The draft version of Health Act of 2010 can be made a reference and implemented in provinces and would entail the following: ⊙ Formation of a review committee comprising of all Federal/Provincial Health and DRR heads/focal persons to review and the Act 2010. ⊙ Build consensus on the Act 2010. ⊙ Finalization and implementation in the country.	NDMP Reference: 4.2.3. IHR Reference: Article 16.	NHSRC, NHEPRN, and Provincial Health Department			x

Proposed interventions	Explanation	Interventions are linked with	Potential implementing partners	Short Term (1-3 years)	Medium Term (4-6 years)	Long Term (7-10 years)
3.7.3: Development of a disease control mechanism. Pakistan Pandemic and Epidemic draft in Progress and therefore, the NAP could be instrumental for its approval.	The availability of a National Action Plan has remained a challenge in the Health Sector, since a lot of work has been done in Disaster Risk Reduction, whereas little or no work has been seen in health aspects of DRR. Once, a National Action Plan is formulated, many policies and Acts including communicable disease control etc. can be finalized and streamlines in the light of it.	NDMP Reference: 4.6.5. IHR Reference: Article 06, 16	NHSRC and Provincial Health Departments		x	
3.7.4: Conduct National resource mapping of health facilities.	Pakistan being hazard prone is vulnerable to many disasters. For this purpose, the information of health facilities and the mapping of their resources remains a great challenge in order to ascertain the response capacity of the health sector. A proper mapping exercise will help consolidate the data at the National Level and be instrumental in effective planning and resource mobilization.	IHR Reference: Article 05.	NHSRC/NHEPRN and NDMA		x	

Section 4

From Planning to Implementation of National Action Plan

From Planning to Implementation of National Action Plan

4.1. Overview of National Action Plan on Health Aspects of the SFDRR

In the context of disaster risk management, public health programmes build capacities and resilience of individuals and communities at risks, to reduce the impact, cope with and to recover from the effects of adversity. They address issues related to health and nutrition related disparities that arise between the general population and the most vulnerable groups. Natural, biological, technological and societal hazards put the health of vulnerable populations at risk and bear the potential to cause significant harm to public health. Examples of these hazards are as follows:

- Natural: hydro metrological and geo-physical hazards including earthquake, landslide, tsunami, cyclones, flood, drought etc.
- Biological: epidemic disease, infestations of pests.
- Technological: chemical accidents, radiological incidents, transports accidents.
- Societal: conflict, stampedes, acts of terrorism.

Emergencies, disasters and other crises may cause ill-health directly or through the disruption of health systems, facilities and services, leaving many without access to health care in times of emergency. They also affect basic infrastructure such as water supplies, safe shelter and access to food & nutrition services, which are essential for health.

Pakistan being signatory of the Sendai Framework for Disaster Risk Reduction has taken the responsibility to prevent and reduce disaster risk through cooperation with shared responsibility between the Government departments at federal and provincial levels. The Sendai Framework articulates the resilience of health system & infrastructure, as part of the multi sector approach that contributes in managing health risks of disasters. Health is included in the expected outcome and the goal of the Sendai Framework.

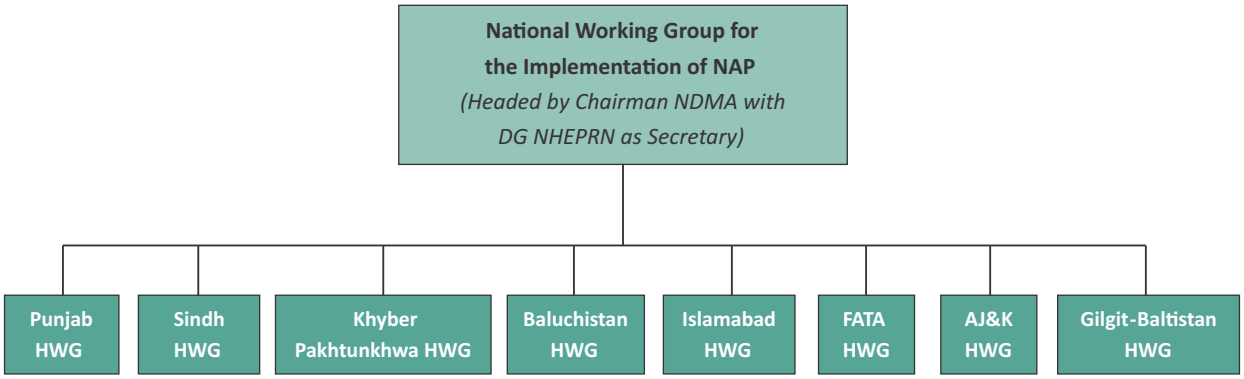
The recently held SFDRR conference in Bangkok (10-11 March 2016) has recommended seven (07) principles that could assist countries in implementing the health aspects of the SFDRR and it focuses on the promotion of systematic integration of disaster risk reduction in the national health policies and strategies. In view of the recommendations given in the above mentioned conference, this National Action Plan on Health & DRR has been developed. The focus is on increasing availability and accessibility to multi-hazard early warning systems and disaster risk information to build health systems resilient, integrating disaster risk management in to all levels of healthcare and the capacity building of health staff and community health workers in disaster risk

prevention and reduction. In addition to the routinely provided health services, Government of Pakistan has focused the need of nutrition service delivery to be considered in parallel to the health services both during the disasters and peace time situations. In connection with this the Government of Pakistan has developed the multi sectoral nutrition strategies both at the National & Provincial levels. The nutrition related DRR activities require special attention in the disaster prone districts and Provinces of Pakistan. There is a need to focus capacity building initiatives related to nutrition in the disaster prone (floods, drought etc.) areas.

4.2. Implementation Framework

In acknowledging the implementation of the National Action Plan on Health and DRR, there is a need to put in place the governance framework, time frame for short, medium and long term projects/programs and dedicated partners/donors to mobilize resources for the implementation of the Plan. A comprehensive implementation framework is designed for identification and coordination of multi stakeholders for the next ten years.

4.3. Governance Framework for the Implementation of National Action Plan (NAP)



Management Unit	Term of Reference	Composition
National Working Group for the Implementation of NAP.	⊙ Provide policy directions and technical assistance in the implementation of the plan. ⊙ Conduct National level consultation workshops and meetings. ⊙ Mobilizing resources and funds at National level and conducting donor conferences.	**Co-Chairs:** 1. Chairman: NDMA and Director General National Health Emergency Preparedness & Response Network (NHEPRN) **Members:** 2. Member DRR (NDMA) 3. Director Program (Ministry of Health)

Management Unit	Term of Reference	Composition
	⊙ Revising the plan if any situation arises demanding a change in the Plan. ⊙ Regularly engage and consult with all National and regional stakeholders, to maintain awareness and support for an indicator-guided approach to achieve the objectives of National Action Plan. ⊙ Periodically monitor and review the progress with respect to set indicators. ⊙ Hire consultant(s) for evaluating the phase-wise impact assessment of projects/programs. ⊙ Gauge the progress through specified criteria for progress review of each region ⊙ Coordinate with Federal Scaling Up Nutrition (SUN) movement unit based at the planning commission for joint planning & coordination related to nutrition in emergency situation.	4. Representative of National Health Cluster 5. Representative from all Provincial disasters risk management and health directorates 6. Representatives of other sectors including ministry of environment, education, met office.. 7. Representative of international organizations
Provincial Working Group for Implementati on of NAP	⊙ Develop strategy for advocating NAP at the legislative level and ministerial decisions/affairs. ⊙ Develop PC-1 for NAP interventions where needed and advocate funds allocation in the Annual Development Plan/Program. ⊙ Participate in National and regional consultations on the progress review meetings/workshops and share	**Co-Chairs:** 1. Director General/Director Health and Director DRR/Relief (P/F/S/GBDMA) **Members:** 2. Focal Person for NAP from all health related organization at Provincial level

Management Unit	Term of Reference	Composition
	lesson learns and best practices. ⊙ Ensure inter-provincial/regional coordination and collaboration for effective implementation of NAP. ⊙ Ensure coordination through quarterly meetings, reporting and sharing of information. ⊙ Examined progress indicators in the individual regional context and adjusted accordingly. ⊙ Additional indicators may also be proposed as per need of the region (s). ⊙ Practice the defined monitoring and review tools and share timely progress report. ⊙ Evaluate performance of the concern authorities on the implementation of the plan with their respective domain. ⊙ Follow the decisions taken during the National Working Group's meetings on quarterly progress and monitoring reports. ⊙ Coordinate with Provincial Nutrition steering committee for joint planning, coordination & implementation.	3. Director Operation, Rescue 1122 4. Representative from PRCS 5. I/NGOs representatives 6. Representative of Provincial Health Cluster 7. Representative of other sectors

4.4. Time Frame

While designing the implementation framework for the National Action Plan, a phase wise implemention is required to be properly planned and implemented along with identification of resources and means to sustain the framework. The authority to govern and time frames need to be carefully chalked out for better identification of partners/donors and to mobilize resources for the implementation. The time frame for implementation has been divided into Short, Medium and Long term with an average of three-year period each.

PHASE	TERM	PERIOD
⊙ Phase-I:	Short term	1 to 3 years (July 2017-June 2020)
⊙ Phase-II:	Medium Term	4 to 6 years (July 2020-June 2023)
⊙ Phase-III:	Long Term	6 to 10 years (July 2023- June 2027)

4.5. Region-wise Implementation of National Action Plan

The inputs taken during the consultation with National and Provincial level stakeholders were further designed for ten-year agenda on health and DRR. Each province/region has its own needs with respect to health and disaster risk reduction and may vary somewhat region to region. The National Action Plan covers the seven regions of Pakistan (i.e. Punjab, Sindh, Khyber Pakhtunkhwa, Baluchistan, Islamabad Capital Territory, Federally Administered Tribal Areas, Azad Jammu & Kashmir and Gilgit-Baltistan). The implementation of the proposed interventions is the responsibility of each region in three phases i.e. short term, medium term and long term.

4.6. Progress Review Strategy

4.6.1. Progress Indicators

A set of indicators are proposed to enable region to track short to medium and long term progress on National Action Plan for health and disaster risk reduction. Each indicator needs to be examined in the individual regional context and adjusted accordingly. The following indicators are aligned with the action plan by following the seven principles.

S.No	NAP Principles	Proposed Indicators
1.	Promote systematic integration of health into National and sub-national disaster risk reduction policies and plans and the inclusion of emergency and disaster risk management programs in national and sub-national health strategies.	I. National and Regional working group exist for the integration of health and DRR policies and strategies by proper notification of Working Groups through the respective ministries II. Developed health specific disaster risk reduction plans and adequate resources are available for its implementation at all administrative levels. III. Develop/strengthen Emergency preparedness and Response Teams/Task Force of DRR and health practitioners at each entity. IV. Developed DRR plans with integrated health component.

S.No	NAP Principles	Proposed Indicators
2.	Enhance cooperation between health authorities and other relevant stakeholders as well as the representation of the target audience/vulnerable groups to strengthen country capacity for disaster risk management for health, the implementation of the International Health Regulations (2005) and building of resilient health systems.	I. Mechanism drawn for effective coordination among the DMAs and Health department in case of disaster/emergency. II. Relevant information on disasters is available and accessible at all levels, to all stakeholders (through networks, development of information sharing system). III. Community participation for resilient health system and implementation of IHR is ensured through the delegation of authority and resources to local levels. IV. Roles and responsibilities of each to be separately defined and agreed.
3.	Stimulate people-centered public and private investment in emergency and disaster risk reduction, including in health facilities and infrastructure.	I. Procedures are in place to assess multi-layered capacity assessment for major development plans, especially infrastructure. II. Economic and productive sectoral policies and plans have been implemented to reduce the health risk. III. Planning for resilient health facilities incorporate disaster risk reduction elements, including enforcement of building codes. IV. Developed mechanism to encourage public private partnerships in investment in capacity building, reducing biological risks and managing logistics and supply chains in emergencies. V. Pre-fabricated health system and medical warehouses are available at regional level to deal emergencies.
4.	Integrate disaster risk reduction into health education and training and strengthen capacity building of health workers in disaster risk reduction.	I. Inclusion of health, DRR and nutrition needs in emergency topics in curricula, education material are in practice thus ensuring institutionalization for a long term practice. Routine updates to be ensured by the

S.No	NAP Principles	Proposed Indicators
		respective departments by identifying and notifying focal personnel. II. Capacity building initiatives on various aspects of health and DRR in emergency are planned and executed. III. Developed pool of Master Trainers on Health and DRR and Nutrition in emergency and involved in capacity building initiatives. IV. Developed alumni data base of trained pool and share with concern authorities.
5.	Incorporate disaster-related mortality, morbidity and disability data into multi-hazards early warning system, health core indicators and national risk assessments.	I. Health threats/Disease Early Warning System (DEWS) are in place for all major health risk, with outreach to communities. II. National and Regional risk profiling, prioritizations and assessments based on hazard data and vulnerability information are available. III. Systems are in place to archive and disseminate DEWS at all level. IV. DHIS covered the private health institutions by laws. V. Mechanism in place to conduct rapid nutrition assessment during disasters. VI. Health information is integrated in disaster loss databases
6.	Advocate for, and support cross-sectoral, trans-boundary collaboration including information sharing, and science and technology for all hazards, including biological hazards.	I. Established/Strengthen the Inter Provincial Committee to support cross-sectoral collaboration and information sharing. II. Established Emergency Response Centers (ERCs) along the Line of Control (LoC) in AJ&K. III. Assessed 65 Check Points for entry into Pakistan and recognized accordingly.

S.No	NAP Principles	Proposed Indicators
7.	Promote coherence and further development of local and national policies and strategies, legal frameworks, regulations, and institutional arrangements.	I. Approved Pakistan Pandemic and Epidemic draft is available. II. Developed consensus on Pakistan Public Health Act 2010 (draft). III. Appointed DRR experts in the NHSRC and Provincial/Regional health directorates for integration of the DRR component into health sector. IV. Conducted National resource mapping of health facilities.

4.6.2. Monitoring and Review

The task of measuring progress on the implementation of National Action Plan require continued monitoring and review processes both at National and Regional level. Monitoring and review processes help all stakeholders to learn from experiences and share with concerns. It is recommended that authorities concerned with the implementation of the plan undertake the following tasks on an ongoing basis:

- Periodically monitor and review the progress with respect to indicators, to ensure that they remain relevant and are properly operational.
- Regularly engage and consult with all stakeholders, to maintain awareness and support for an indicator-guided approach to achieve the objectives of National Action Plan.
- Participate in National and regional consultations on the progress review meetings/workshops and share lesson learns and best practices.

4.6.3. Follow-up Actions and Indicative Criteria for Progress Review

- Conduct regular consultation workshops/ meetings on NAP projects and documented stakeholder's inputs/ comments.
- The inter-provincial/regional coordination and collaboration help the effective implementation of NAP.
- Monitoring tools and mechanisms are defined and need to be in practice.
- Hire consultant(s) for evaluating the phase-wise impact assessment of projects/programs.
- Evaluate performance of the concern authorities and groups with their respective domain.
- Coordination through regular meetings, reporting, sharing information.
- Implementation of decisions taken during the working group's meetings on quarterly progress and monitoring reports.

- Develop PC-1s and advocate at legislative level and Ministerial decisions/affairs.
- Consultation for future needs at each phase out.
- Conduct donor conference and invite foreign missions to share progress and mobilize funds for each Phase.

The National Working Group for the implementation of NAP will gauge the progress through indicative criteria based on agreed indicators for establishing level of progress of each region i.e.

- Level 1: No progress has been made and/or progress has stopped or moved backwards.
- Level 2: Minor progress achieved in health and disaster risk reduction actions, with no systematic commitment.
- Level 3: Institutional commitment to reduction of health risk, but no substantial progress.
- Level 4: Systematic commitment at policy level, but insufficient resource allocation.
- Level 5: Full achievement with sustained commitment.

4.6.4. Resource Mobilization

The implementation of the NAP is the core responsibility of the concern government authorities. In this regard, PC-1 will be developed for interventions where needed and funds will be allocated in the Annual Development Plan/Program. Similarly, conducting donor conferences and involving foreign missions can support the phase–wise implementation of NAP. Three donor conferences are proposed in the ten-year agenda of NAP i.e.

- 1st donor conference: December, 2017.
- 2nd donor conference: July, 2020.
- 3rd donor conference: July, 2023.

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