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# Practitioners Guide Book on Mainstreaming DRR into Local Development Planning Process at District Level



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## Message from Director General PDMA Sindh

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The fact remains that disasters and development has close relation. Presence of hazards and vulnerabilities always contribute together for disasters occurrence. Disaster Risk Management in a disaster prone country like Pakistan therefore needs its rightful importance. The country has witnessed a number of disasters in the shape of natural and man-induced both. Disasters can be managed with strong comprehensive planning, long term policies and effective institutional arrangement. Realizing the significance of this requirement, the Government of Pakistan has established a number of institutions at the national, provincial and district levels.

The province of Sindh has historically suffered from both natural and human induced disasters. The high level of risk is mainly from floods, heavy rains, cyclones in coastal area, sea intrusion, droughts, earthquakes and epidemics etc. Government of Sindh and Provincial Disaster Management Authority are fully committed to achieve the resilience through different DRR initiatives. In this regards we encourage different organizations and bilateral partners for their DRR related activities in the province.

Technical capacities on the part of local-level stakeholders, which specifically include the district government institutions, are very crucial. It is believed that a trained human resource could contribute more towards resilient building. The development of mainstreaming guide book by Malteser International in coordination with PDMA is a substantive effort for building the technical capacities of the local authorities. The Practitioners Guide book can serve as a guide for DDMA officials in understanding and implementing Disaster risk management strategies at the district level. I hope you will find this guidebook useful for mainstreaming DRR into development planning process.

**Commander (R) Syed Salman Shah**  
**Director General**  
**Provincial Development Authority Sindh (PDMA)**

## Acronyms

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ADP	Annual Development Plan
DRR	Disaster Risk reduction
DRM	Disaster Risk Management
DDMA	District Disaster Management Authority
ERRA	Earthquake Reconstruction and Rehabilitation Authority
GLOF	Glacial Lake out Burst Flood
GDP	Gross Domestic Products
GIS	Geographical Information System
ICCP	The Intergovernmental Panel on Climate Change
IT	Information Technology
JICA	Japan International Cooperation Agency
NDMA	National Disaster Management Authority
PHE	Public Health Engineering
PDMA	Provincial Disaster Management Authority
SFA	Sandai Framework for Action
SGDs	Sustainable Development Goal
UNDP	United Nation Development Programme
UNISDR	United Nation International Strategy for Disaster Risk Reduction

## About this Document

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Malteser International Pakistan is implementing a DRR, Food security and Livelihood integrated project namely “Strengthening of Resilience through DRR and Livelihood Measures in Vulnerable Coastal Communities in District Thatta, Sindh Province, Pakistan”. The project is financially supported by German Federal Ministry for Economic Cooperation and Development (BMZ). Under this project Malteser International intended to develop a guidebook on Mainstreaming DRR into local development planning process. In this regard, a consultation workshop was organized with different stakeholders including Government departments, DDMA, PDMA and Civil Society Organizations. Along with capacity building, participants shared a lot of suggestions and feedback and emphasized to develop an easy guidebook for practitioners and especially for District level Government officials. Malteser International in collaboration with PDMA Sindh have developed this guidebook on mainstreaming DRR into local development planning process. PDMA Sindh is committed and extends its endeavors to ensure risk conscious planning and development in entire province. The main audience of this guidebook is the district administration and district level line departments, which are involved in annual development planning process. Malteser International and PDMA Sindh are hopeful that this guidebook will definitely be useful for district level stakeholders and will be helpful in creating culture of resilience in the entire province.

This guide book has been developed with consultation of different stakeholders and with technical leading role of PDMA Sindh. For the development of this guidebook existing available material of PDMA, NDMA, UNDP, ERRA and Planning Commission of Pakistan has been reviewed and some relevant text from available material has been re-quoted and reprinted with acknowledgement with intention of wider circulations of good practices. The purpose of this guidebook is to provide easy way to understand steps for Government officials to integrate DRR into their regular local level practices. Furthermore, the same guidelines will be published in Sindhi language.

## Prelude

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Globally hazards are inevitable and are becoming increasingly frequent. Their impact on societies is increasing because of rising levels of human vulnerability. With every disaster, there is a significant impact on various sectors of development like agriculture, housing, health, education and infrastructure etc. This results in a serious social and economic setback to development and poverty reduction strategies of the developing countries and poses a threat for achieving the Sustainable Development Goals (SDGs).

Frequent disasters lead to the erosion of development gains. Physical safety, especially for vulnerable groups, is threatened by hazards. The major earthquake of October 2005 and later flood 2010 witnessed that Pakistan needs to develop a multi-hazard preparedness, prevention, response and recovery plan to deal with natural hazards so that threats to human life and property are minimized. Loss of life has enormous social, psychological and economic impacts on the society. But the material losses in terms of damage and destruction of infrastructure have invariably a debilitating effect on a country's economy. This becomes especially unbearable when the development gains with heavy investment over the years are eroded in a single disaster, mainly, due to failure of integrating disaster risk reduction into the development process.

Disaster risk management is essentially a development problem and thus any preparedness and mitigation planning will have to be under taken in tandem with environmental concerns that the country is facing today. Disaster Risk Management focuses on reducing threats and potential losses and not on managing disasters and their consequences. DRM contributes to developing a "culture of safety" and creating "disaster resilient communities".

## Main Hazards, Disaster Occurrences and Impact in Sindh Province

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Sindh is exposed to a number of natural and human-induced hazards. Floods, droughts, storms, cyclone, road accidents, fire and disease outbreaks are the most common disasters. However, floods and droughts are by far the most important disasters affecting Sindh province in terms of their geographical spread, frequency and impacts on livelihoods and the economy. Recurrent disasters in Sindh province have had far-reaching impacts on food, energy, health, water and other sectors of the economy. In particular, these disaster events have undermined the stability of livelihoods among the most affected communities. Direct losses related to disasters in Sindh

province have included physical damage to assets including buildings, infrastructure, standing crops, grain stores, livestock and infrastructure, as well as loss of human life and injury. In addition, secondary losses related to disasters have also had an impact on gross domestic product (GDP), fiscal performance and increased poverty levels.

Japan Inter Cooperation Agency (JICA) in collaboration with National Disaster Management Authority (NDMA) while preparing National Disaster Management Plan (NDMP) Pakistan conducted district wise risk assessment. The relative severity of risks per district in Sindh province as per JICA/NDMA risk assessment is shown below:

SN	Province	District	Flood risk	Landslide risk	EQ risk	Tsunami risk	Cyclone risk	Drought risk	Avalanche risk	GLOF risk	Total
1	Sindh	Karachi	4	1	5	5	5	5	1	1	27
2	Sindh	Badin	5	1	3	-	5	2	1	1	18
3	Sindh	Dadu	5	1	2	-	2	5	1	1	17
4	Sindh	Hyderabad	5	1	4	-	4	5	1	1	21
5	Sindh	Qambar Shahdaskot	5	1	3	-	2	4	1	1	17
6	Sindh	Tando Muhammad Khan	5	1	4	-	4	5	1	1	21
7	Sindh	Thatta	4	1	2	3	4	1	1	1	17
8	Sindh	Tando Allah Yar	4	1	4	-	4	5	1	1	20
9	Sindh	Miatari	5	1	4	-	2	5	1	1	19
10	Sindh	Jacobabad	5	1	3	-	2	5	1	1	18
11	Sindh	Jamshoro	5	1	2	-	3	5	1	1	18
12	Sindh	Kashmore	5	1	3	-	2	5	1	1	18
13	Sindh	Mirpur Khas	4	1	3	-	4	4	1	1	18
14	Sindh	Naushoro Feruz	5	1	3	-	2	5	1	1	18
15	Sindh	Nawab Shah	5	1	2	-	3	5	1	1	18
16	Sindh	Shikarpur	5	1	3	-	2	5	1	1	18
17	Sindh	Ghotki	5	1	2	-	2	5	1	1	17
18	Sindh	Khairpur	5	1	2	-	2	5	1	1	17
19	Sindh	Sukhar	5	1	2	-	2	5	1	1	17
20	Sindh	Larkana	5	1	2	-	2	4	1	1	16
21	Sindh	Tharparkar	3	1	2	-	4	4	1	1	16
22	Sindh	Sanghar	4	1	2	-	3	2	1	1	14
23	Sindh	Umerkot	3	1	2	-	3	3	1	1	14
Scoring Key			V.High	High	Medium	Low	V.Low	Non Hazard			
			5	4	3	2	1	-			

The Government of Sindh and especially Provincial Disaster Management Authority (PDMA) Sindh realizes and recognize that disasters are hindering the province's growth and poverty reduction efforts. Disaster risk management (DRM), which is a combination of disaster risk reduction (DRR) and disaster management concepts, was therefore adopted as one of the core focus areas of the Strategy, whose long-term goal vis-à-vis disaster management is to reduce the socioeconomic impact of disasters and to build a strong disaster management mechanism. PDMA Sindh has in the past decade not only advocated a paradigm shift from a reactive to a more proactive approach, it has put in place institutional mechanisms and developed policies and strategies for mainstreaming disaster risk reduction at provincial level under guidance of NDMA and aligned with NDMA national strategies. The Government of Sindh continues to highlight disaster risk management and disaster risk reduction as key focus areas for achieving sustainable economic growth.

Owing to the increasing frequency and intensity of disaster events in the province during the past two decades, it has increasingly become evident that these occurrences should no longer be considered as emergencies because they are quite predictable. Additionally, experience has clearly shown that 'single-dose' interventions usually planned in an emergency have failed to produce lasting solutions to these problems. This situation is compounded by the ever-increasing list of hazards, of which some have occurred as direct or indirect impacts of climate change. The absence of a comprehensive strategy has thus resulted in a delayed response, in addition to the huge socioeconomic and environmental losses arising from disasters. It has been recognized that these impacts could be significantly minimized if a proactive strategy were developed and implemented. This situation has given rise to the need to change the mindset from a mere emergency response to taking account of disasters as part of the development planning process – in other words, the need to mainstream disaster risk reduction in development planning at all levels.

To this end, the PDMA Sindh has received support from the agencies of the United Nations system, from the donor community and from civil society organizations in its efforts to mainstream disaster risk reduction into development planning and plans. PDMA Sindh in collaboration with NDMA and NIDM has conducted capacity building training workshops for government officials in Sindh. Further to this in collaboration with Malteser International PDMA Sindh intended to develop a practitioner guidebook both in English and local Sindhi language for practitioners. This easy to understand practitioners guidebook will definitely contribute in creating a culture of resilience in Sindh province.

## Basic Concepts/Definitions

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In Pakistan to build own house is extremely a difficult task as to earn and save money needs years and years of efforts. (One starts to think while building one's own house, he/ she starts thinking and a long list of questions arises in mind like:)

- The piece of land he is going to select is at safe place, is it safe from any hazard, is it not on sloppy side, bearing capacity of the land is good enough, is it safe from any drainage or any seasonal nallah flow etc and finally by considering different factors finalize the site selection.
- He starts to prepare map of the house and consider many factors like wind orientation, sun light, cross ventilation and safety and security issues etc. for design of his own house he considers all necessary factors mainly for sustainability point of view.
- When he starts construction, he cares about the right material, proper ratio of sand and cement, proper use of electric wiring system and good drainage etc.

Arising of these questions while construction of own facility, change your thinking's and these risk conscious thoughts are generally called mainstreaming DRR. Similar risk conscious focus is highly important and to consider such factors while we are working for the public development projects like construction of health facilities, education facilities and any other infrastructural development.

To further and technically understand the subject of mainstreaming DRR and importance of DRR integration into development planning, it is important that stakeholders should first acquaint themselves with basic concepts and terminologies used in this field. Some of the standard definitions by UNISDR are given below:

### Acceptable Risk

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

### Biological Hazard

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

## **Capacity**

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

## **Capacity Building**

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

## **Climate Change**

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

## **Coping Capacity**

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

## **Disaster**

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

## **Disaster Risk Management (DRM)**

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

## **Disaster Risk Reduction/Disaster Reduction**

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

## **Early Warning**

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

## **Emergency Management**

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

## **Forecast**

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

## **Hazard**

Potentially damaging physical event or phenomenon that may can use the loss of life or injury, property damage, social and economic disruption or environmental degradation.

Hazards can include natural (geological, hydro meteorological and biological) or induced by human processes (environmental degradation and technological hazards). Hazards can be single, sequential or combined in their origin and effects. Each hazard is characterized by its location, intensity, frequency and probability.

### **Geological Hazard**

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

### **Hazard Analysis**

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

### **Land-use Planning**

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

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

### **Natural Hazards**

Natural processes or phenomena occurring on the earth that may constitute a damaging event. Natural hazards can be classified by origin namely: geological, hydro meteorological or

biological. Hazardous events can vary in magnitude or intensity, frequency, duration, area of extent, speed of onset, spatial dispersion and temporal spacing.

### **Preparedness**

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

### **Prevention**

Activities to ensure complete avoidance of the adverse impact of hazards.

### **Public Awareness**

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

### **Recovery**

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

### **Relief / Response**

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

## **Resilience / Resilient**

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

## **Retrofitting (or upgrading)**

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

## **Risk**

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

## **Risk Assessment/Analysis**

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

## **Structural / Non-Structural Measures**

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

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

### **Sustainable Development**

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

### **Technological Hazards**

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

### **Vulnerability**

The conditions determined by physical, social, economic and environmental factors or processes, which increase the susceptibility of a community or society to the impact of hazards.

### **Wildland Fire**

Any fire occurring in vegetation areas regardless of ignition sources, damages or benefits.

## What is meant by Mainstreaming DRR into Development Planning?

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At district level different government line departments like Health, education, agriculture, works and services, public health engineering department, environmental management, rural development, housing etc are serving as small or side streams and contributing to over all a district level main development stream. To make overall district level development sustainable and risk conscious it is important that these line departments must integrate DRR into their system, planning, implementation etc so that DRR measures coming from small or side streams(district line departments) can bring DRR measures collectively to overall district level development stream.



To understand mainstreaming DRR could be summarized into two bullet points as:

- To minimize vulnerabilities and disaster risks through prevention or mitigation and preparedness is called DRR. When DRR become embedded into regular development practices, and fully institutionalized, it is known as DRR Mainstream.
- A systematic process to fully incorporate disaster risk reduction into development Policy, programme, project and practice.

## Objectives of Mainstreaming DRR

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The government officials working in different line departments at district level should have clarity and realization on objectives of the mainstreaming as:

- To reduce existing risks where possible to mitigate the impact of future disaster.
- To ensure that development does not drive risk/develop new risk.
- To ensure the sustainability of the individual project, thus protecting the project's investment.

## Why Mainstreaming DRR ?

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Pakistan is prone to multiple hazards and major disasters have caused men and material losses in the past. Natural disasters threaten sustained economic growth by causing shocks. Also unplanned development created new risks and precipitated existing vulnerabilities. Disasters decrease the economic potential of the society by aggravating poverty, disrupting small business and industrial activities and disabling lifelines and infrastructure vital for economic activity and service delivery. Disasters also reduce human capital as a result of deaths, injuries and long term trauma suffered by affected individuals. At the time of disasters, because of scarce resources, the governments have to divert their focus from development to relief and rehabilitation, which further creates set back to the development.

It is necessary to retrofit all the existing development activities for reducing the threats of impending disasters. Additional costs involved shall always be far less than the benefits accruing from such investments.

Disasters and development are co-related in terms of negative and positive impacts. Depending on the level of development happening, disasters can set back the developments and the achievements of long-term development efforts may disappear in an instant. The preventive measures against disasters are always highly cost efficient. At the same time, it can also be taken as a unique opportunity to reduce vulnerabilities. However, natural disasters stand as one of the main challenge to achieve Sustainable Development Goals (SDGs). So, development activity and Disaster Risk Reduction (DRR) representing two sides of the same coin needs to be dealt with in unison. While natural disasters cannot be prevented from happening, the vicious cycle of disasters and its effects in the development activity can be altered. The lack of consideration of DRR into development process leads to bearing extra costs in reconstruction which perpetuates the conditions for unsustainable development and shifts the scarce resources originally programmed for development into relief and response.

The Hyogo Framework for Action (HFA), recently called as Sendai Framework of Action (SFA) to which Pakistan is a signatory, is guided mainly by DRR mainstreaming. The Sendai Framework for Disaster Risk Reduction, a voluntary agreement which includes seven targets and four priorities for action (2015-30) and calls for a more holistic and systematic approach to disaster risk reduction (DRR). Global recognition of the need to mainstream disaster risk reduction and climate change adaptation into development agendas has been increasing since the late 1990s. The HFA framework developed in 2005 was a turning point for global efforts towards internationally coordinated DRR-related work. It is a useful reference tool in planning for DRR and CCA integration into disaster management and development programmes at any level. It urges Governments and development stakeholders to give higher priority to risk-reducing actions. Since its inception in 2005, the HFA has been a key guiding instrument for Governments and strategic stakeholders such as civil society organizations to make progress in the process of DRR mainstreaming. It is therefore expedient that DRR practitioners and stakeholders understand the HFA and SFA thoroughly in order to be effective in the planning and implementation of DRR mainstreaming measures at different levels, most especially at district and community level.

## Opportunities

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The opportunities of mainstreaming DRR in development planning have following advantages:

1. It prepares land use plan, so can guide private sectors, government to undertake large scale projects, on the proper location of their projects and the implementation of the necessary mitigation works.
2. Mainstreaming DRR addresses disaster issues as a cross-cutting dimension of development and goes beyond hazard impact mitigation to a more comprehensive analysis of its implications to development.
3. It helps in decision making of allocation and prioritization of available resources in development planning at local level.
4. It attracts and keeps track of all the stakeholders in one basket thus reducing duplication in projects.
5. It helps to better respond to disaster.
6. Advance planning and the implementation of appropriate development strategies can significantly reduce the labour and cost of rescue, relief, resettlement and reconstruction.

7. It helps to fulfil the national and international goals and objective like SGDs to reduce poverty, promote environmental sustainability and etc.
8. It promotes Risk sensitive land use planning, Land pooling and land development; Implementation of building code; Capacity building of municipal officers, engineers, contractors, masons; Strong and sound field monitoring system; Awareness raising for individuals in DRR through social mobilization.
9. Involve college, schools and other academics; Involve govt. agencies, NGOs, private sectors with effective coordination mechanism.

## How to Mainstream DRR?

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Pakistan has developed national DRR policy, laws, regulations and DRM plans but limited attention on the processes that generate them and put them into action. In other words, the transformation of commitments into DRR has not always been adequately considered. Mainstreaming requires a change in the overall system and this needs political commitment, motivation and financial support. We have to focus in this guide book those common and general steps which lead us to the gateway of mainstreaming DRR into development planning process and sector wise requirements at local level.

Before discussing here the entry points of DRR mainstreaming, a brief summary of the basic principles is given here. Mainstreaming should be a country-driven and country-wide process to embed risk into existing development policy and practice. It means to keep into consideration national, provincial and local context and needs with flexible way. Mainstreaming is a thorough, long term, and ongoing process which means that risks and circumstances are constantly changing. DRR should be the centre of development agenda and decision making process. DRR should not be dealt as an additional subject but to make it part of policy and practice with transformation way. Mainstreaming follows widely accepted risk governance principles such as equity and inclusion, participation, responsiveness, transparency, accountability, effectiveness, and efficiency. Gender and social dimension must be considered in the mainstreaming process. The involvement of wider range of stakeholder and their roles and responsibilities must be part of mainstreaming.

There is no specific rule for mainstreaming DRR into development planning process. It depends upon context and priority of the country. There is no one right starting point for mainstreaming and entry points will depend on the context and the best possible combination of priority entry points that will assist in achieving the intended outcome of a specific country. In most cases, it will be important to work on a number of entry points simultaneously.

The entry points are all inter-related and their interdependence helps gain traction or make progress with other components. The entry-points therefore work in a dynamic way with one success leading to another. While mainstreaming DRR into development following would be the main enablers to facilitate the entry points;

## **Knowledge on Mainstreaming DRR**

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The initial step towards mainstreaming is clear understanding on the subject.

- The first step is that all government officials of line departments in each district of Sindh province should understand the importance of mainstreaming DRR into their respective departments annual development plans. They must recognize the need of DRR integration into project cycle management of sectoral development projects. This is possible through wider awareness raising programs.
- PDMA Sindh will chalk out a detail plan for capacity building of government officials in Sindh province at provincial and district level.
- In collaboration with NIDM, through their Human Resource Development Plan, training and awareness raising programme could be implemented.
- A pool of provincial level Master Trainers on Mainstreaming DRR could be trained that can further impart trainings and can transfer knowledge and skills to government officials at district level.
- PDMA in collaboration with provincial level departments can introduce a training package with in the line departments existing training institutes.
- At district level departments themselves should take interest and can arrange training programmes for their staff through support of other stakeholders. It should be regular part of their basic service training program.

- INGOs and UN Agencies already implementing such activities but not no more coordinated efforts are needed to enhance practical and technical skills of line departments on integration of DRR into annual development planning
- The local authorities must be aware of scientific and local knowledge of DRR. They should know about risk assessment and risk conscious planning.

## Existence of Policy on Mainstreaming DRR

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The commitment, strong will and ownership of political leaders are necessary for the development of policies and laws at local and provincial level. These policies must be in line to the global level policies and framework keeping in view local needs.

- Once every one at all levels is fully aware about the importance and need of mainstreaming DRR than there is a need to review the existing policies and procedures.
- At present our approach is completely response oriented and our development is not risk conscious. Hence there is a need to change our current practices and focus on preparedness with risk conscious approach.
- This requires enabling environment with change in current policies, procedures and practices.
- Planning Commission of Pakistan issued a risk conscious check list and it was officially circulated among departments for further compliance. It was made mandatory that no development project will be approved if this risk conscious check list is not part of this.
- PDMA Sindh may advise the planning development department to ensure the compliance of the checklist developed by the planning commission Islamabad.
- Similarly planning and development department in coordination with PDMA Sindh should play its role to ensure DRR integration like PC1, PC2 documents levels and during all phases of the project cycle management.
- In this regard it is important that all line departments should have knowledge to fill and follow this check list.
- At district level it is responsibility of the development working party to ensure at the time of district level annual budget process that DRR integration has been followed while preparation of sectoral / departmental annual development plans.

## Development of Tools

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- Mainstreaming DRR is a relatively new and technical subject.
- For mainstreaming DRR into local development planning process, apart from trainings, skills enhancement and awareness, development of different tools are pre-requisite.
- Preparation of multi hazard indication maps, land use plans, zoning, guide books to ensure DRR integration as part of PC1 document.
- Tools to conduct sectoral wise risk assessment.
- Guidance for the use of scientific methods like GIS etc.
- Simple guide to use hazard indication maps and to read and understand the maps etc.
- For the development of such tools mainly DDMA should take lead and departments should coordinate and support with PDMA to pool their own resources.

## Budget Allocation

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Sustained financing or budget allocation is important for mainstreaming DRR into development plan. Without proper financing and public and private investment the real dream of sustainable development is not possible. Due to various complexities budget allocation is an issue for DRR conscious planning and development. Proper budget allocation on priority basis can support to achieve the target of mainstreaming DRR. This should be part of annual development budget.

- At national level and at provincial levels authorities and advocating for the separate budget allocation, however at present this should be part of regular annual development budget of different departments.
- PDMA can advise at least initially to key departments to start practicing and conduct of proper risk assessment and based on risk assessment different departments can systematically include DRR budget along with regular development activities to ensure resilience.
- In this regard DDMA with support of planning and development department can guide departments how to allocate budget for specific DRR activities with in regular annual budget.

## **Institutional Arrangement:**

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Establishment of dedicated department and staff is pre requisite for the cause of mainstreaming DRR. Staff capacity building, assignment of roles and responsibilities, coordination among various department and presence of various management skills can help to get the target of mainstreaming. Lack of dedicated staff, and less effective district DRM System is another key issue for mainstreaming DRR. The roles and responsibilities of district level line departments are well defined but all staff should be aware of their DRR mandate with in their existing departmental mandate. This is not an extra burden if systematically inducted and staff should be trained. Member departments of DDMA should conduct regular coordination meetings and mainstreaming DRR also need multi stakeholders coordination. Besides these other stakeholders like civil society organizations, private sectors, communities, NGOs, and media should be aware about their roles and responsibilities before, during and after any disaster. If deployment of dedicated DRR staff at DDMA level at the moment is not possible due to some unavoidable circumstances than PDMA Sindh can mobilize other sources from different donors and UN Agencies and for a specific period some DRR Specialist or experts could be appointed at DDMA Level to build their technical capacities. Similarly experts at department levels could be deployed that can support departments in conduct of risk conscious assessments, risk conscious annual development planning and in the preparation of departmental preparedness plans.

## **Mainstreaming DRR Guiding Points for District Level Actors**

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### **Health Department**

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- District level health department should first ensure that health related staff fully understand and fully trained in mainstreaming DRR into health sector
- Start discussion and consultation among the staff how to integrate DRR into health sector annual development planning
- Conduct vulnerability assessment of all types of health facilities in hazard-prone areas;
- Promoting hazards resilient construction of new hospitals and health facilities building
- Implementing disaster preparedness plans for hospitals and health facilities
- Assessment and capacity building of health facilities at all levels
- Relationship of health, disasters and development
- Health sector preparedness

- Annually collecting data of health facilities (BHUs, RHCs etc)
- Making Health annual development plan risk conscious.
- The Location of health facilities should not be at the edge of a slope, near the foot of a mountain vulnerable to landslides, near creeks, rivers or bodies of water that could erode its foundation, on top of or in proximity to active fault lines (less than 10 meters away), near the river banks and areas prone to storm surges.
- Site health facilities on higher grounds or make flood protection bunds around these facilities.
- The Health Facility should be located along or near good roads and adequate means of transportation readily accessible to the community.
- Develop and enforce safe building codes for multiple hazards like floods, earthquake and windstorms.
- Ensure use of safer materials and construction techniques.
- Ramps should be present in appropriate areas for moving bed patients and for use by people with disabilities
- New structures should be built with fire-resistant and nontoxic materials.
- Ensure that nonstructural mitigation measures are also implemented in health facilities.
- Carry out proper retrofitting and ensure quality control through regular monitoring.
- Improving the communication and coordination between the various stakeholders within the health sector, as well as outside the health sector.
- Train the health workers in operating efficiently under a disaster situation.
- Create DRR awareness among the community especially first aid skills.

## Infrastructure Department

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- Staff Capacity building on mainstreaming DRR into sector.
- Identification and ranking of critical assets.
- Assessment of Risks and determination of priorities for protecting infrastructure.
- Sharing risk findings with concerned departments.
- Making development planning risk conscious and resilient.
- Making contingency plan for any emergency and disasters.
- Consultation with all stakeholders for collective ownership and sustainability.
- Focus micro to macro level DRR initiative for infrastructure safety .

## Guidelines for In-corporating DRR in Infrastructure Projects

### Process

1. Has there been a Participatory Situation Analysis?
  - a. Have disaster management experts, technicians, and specialists participated in project preparation?
  - b. Have vulnerable stakeholders, especially women and disadvantaged groups, been consulted?
  - c. Have the private sector and civil society organizations been involved?
2. Has Analysis of Stakeholders been accomplished?
  - a. Does the project incorporate poverty alleviation and social equity dimensions, considering that poor people are generally most exposed to disaster risks?
  - b. Will the project facilitate the access of vulnerable groups to social safety nets, health, knowledge, education and vocational training?

### Legal and Regulatory

1. Does the project comply with applicable laws, regulatory frameworks, and by-laws?
2. Are there clear definitions of roles and responsibilities for institutions, organizations and individuals to ensure that the project complies with applicable laws and regulations?
3. Specifically, is there an inspection mechanism in place to ensure compliance with laws, rules, and by-laws during construction and operational phases?

### Capacity Building

1. Does the project promote capacities to assess and monitor local, regional and trans-boundary hazards?
2. Does the project follow existing disaster-related rapid impact and needs assessment guidelines?
3. Does the project enable the utilization of existing disaster-related rapid impact and needs assessment guidelines?
4. Does the project promote capacity building at the community level for disaster management and risk reduction?

5. Specifically, does the project sensitize vulnerable groups, such as informal sector workers, on physical and socio-economic risks?

### **Knowledge and Information Sharing**

1. Is there a hazards map for the locality, region?
2. Has the hazards map been utilized in project design, in risk assessment?
3. Has community-based local knowledge been incorporated, reevaluated, in project design and project operational procedures?

### **Early Warning Systems**

1. Is an early warning system incorporated into project design and operations?
2. Is there a use for the early warning system during normal times?

### **Specific Efforts to Reduce Underlying Risks**

1. Does the project encourage sustainable land use and management of ecosystems?
2. Does the project support integrated environmental and natural resource management
3. Does the project support mechanisms for improving food security?
4. Does the project support diversified income options for the poor?
5. Does the project engage the private sector in disaster risk reduction activities?

### **Application of Financial Resources**

1. Does the project incorporate financial risk-sharing mechanisms?
2. Does the Benefit-Cost Analysis for the project incorporate the B:C Analysis of risk reduction alternatives?

## Housing Department

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- Staff Capacity building on mainstreaming DRR into sector.
- To assess impacts of disasters on human settlements.
- Use of guidelines, application packages/ toolkits for mainstreaming DRR in the housing sector.
- Advocacy for mainstreaming DRR in the housing sector.
- To keep data of rural and urban houses annual basis.
- Development of DRR Checklist for housing, if checklist is there then its implementation.
- Comprehensive monitoring and evaluation.
- Strictly following building codes and bylaws
- To keep strict check on public and private housing projects.
- To guide and advocate for safer dwellings.
- Actively involvement in developmental planning.
- For housing, hazard resistant design standards exist internationally and are readily available for various types of construction and disasters.
- Building codes are the most common regulatory instrument for ensuring safe construction methods, although they may not be promulgated or enforced.
- DRM considerations should be applied in site selection for both temporary and permanently relocated housing.
- While reconstruction should not occur in areas frequently affected by hazards, this is admittedly difficult where non-vulnerable alternatives are scarce or land use regulations do not prevent it.
- Reconstruction guidelines should include the topic of site selection, as should the reconstruction communication program, so that both agencies and individuals are educated about the importance of these decisions.
- Rehabilitation deals with structural and nonstructural modification of buildings and infrastructure facilities.
- Since new zoning laws and updated design and construction codes usually can't be applied retroactively, it is important that, to reduce the impact of disasters, the safety and structural integrity of existing buildings and infrastructure facilities is improved during the rehabilitation process.
- The training program should provide an understanding of how the hazards may affect the household and community and of recommended mitigation strategies for the specific

affected region. Train builders, architects, engineers, masons etc in hazard resistant technologies.

- The location or structure of a building can greatly increase its vulnerability. Mitigation measures should address the specific causes of a building's or infrastructure's vulnerability. Removal, relocation, or elevation of in-place structures in highly hazardous areas, especially those built before building codes were established, is frequently the only option. A community must prioritize options based on the importance of a structure and its relative vulnerability.
- There are lot of old buildings in different parts of Sindh province, district wise study on old buildings is necessary and chalk out policy for the demolishing of old buildings to avoid future human losses.

## Agriculture Department

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- Staff Capacity building on mainstreaming DRR into sector
- To ass impact of disasters on agriculture sector, and the process of agricultural risk and vulnerability assessment within the sector;
- Appropriate DRR strategy and program to address specific vulnerability level within the context of the agriculture sector;
- Develop DRR plans and programs for mainstreaming to the agriculture and food security program;
- Promoting programmes of contingency crop planning ; crop diversification;
- Supplementary income generation from off-farm and non-farm activities
- Effective insurance and credit schemes to compensate for crop damage and loss to livelihood
- Improving the communication and coordination between the various stakeholders within the agriculture sector, as well as outside this sector.
- Identify the type, frequency and severity of potential disasters (disaster mapping. Community participation will ensure accuracy of local information.
- Ensure appropriate crop selection (test and introduce new varieties, encourage the planting of drought/saline/flood resistant crops and quick/growing crops and alternate farming with animal breeding.
- Help in developing contingency crop planning (changing of cropping patterns to match late/early rains, availability of seed of drought, flood, salinity tolerant crop varieties, famine reserve crops etc., promoting non/farm activities.

- Promote post/harvest management (storage, food drying, food processing keeping in mind the disaster profile of the area. Community based and government/private sector supported initiatives such as grain banks, locally managed food/processing units and market linkages can help efficient preservation and distribution of farm products.
- Encourage the development of water control infrastructure /rainwater harvesting; water conservation techniques; forestation /reforestation and agro/forestry. Technical Institutions and NGOs may take initiatives with the community on water management.
- Assess the role of agriculture, livestock, fishery and forestry line departments in disaster risk preparedness and linkages with other relevant institutions.
- Hold trainings on developing specific infrastructural measures like raised seeds beds, check dams, wind breaks, fire breaks; proofing of storage facilities; soil erosion control structures, routine clearing of drainage system; seed and fodder reserves; drought resilient strategic water points and developing traditional coping mechanisms.
- Help farmers link with risk sharing and transfer instruments like crop/ livestock/ fishery insurance, compensation and calamity funds, micro/credit and cash transfers;
- Promote livelihood diversification. This can include small/scale enterprise development, introducing new farming activities (small/scale livestock, fish ponds, new crops of higher market value.

## Education Department

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- Staff Capacity building on mainstreaming DRR into sector.
- Vulnerability assessment of all types educational institutions in hazard-prone areas.
- Promoting hazards resilient construction of new education buildings.
- Advocacy and recommendation for Introducing DRM subject into the school curriculum and teachers training.
- Introducing features into schools structures for their use as emergency relief shelters.
- To suggest different ways of mainstreaming DRR in school building construction and in the education curriculum.
- Building partnerships for mainstreaming DRR in education sector.
- Developing plan for initiating mainstreaming of DRR in the education.
- Along with annual development plan to education also develop education continuity plan in case of emergency.

- Regular trainings for teachers need to be carried out along with orientation workshops and advocacy campaigns for the education community as a whole.
- It is also essential to review the existing teaching aids (teaching manual, instructors guide, text books, work books, student activities, etc.) and make necessary changes so that the aids facilitate the teachers in delivering the curriculum.
- The increase in the level of knowledge about DRR amongst the children could be monitored through questionnaires at various intervals.
- In addition a school safety week could be conducted at the end of the teaching activities for the final evaluation of transfer of knowledge.
- It is suggested that the technical working group works closely with the curriculum developer and the National curriculum review committee, so that in the next curriculum revision cycle the new DRR subject/module could be taken up for integration.
- Adding features, such as facilities for water, sanitation and cooking in schools in hazard prone areas for use as emergency shelters.
- Development of guidelines for emergency planning in the schools.
- Carry out safety audit of all existing school buildings with respect to their location, design and quality of construction and prioritizing them for demolition, retrofit or repair.
- Develop, implement and enforce codes with the performance objective of making all new school buildings ready for immediate occupancy following disasters to serve as shelters or safe havens for the community as well as to restore educational functions in the shortest possible time.
- Demolish unsafe school buildings and replace them.
- Implement non-structural risk mitigation (for example, fastening down building contents and non-structural building elements so that they cannot injure and kill occupants during earthquake shaking) in schools where necessary.
- Implement non-structural risk mitigation (for example, fastening down building contents and non-structural building elements so that they cannot injure and kill occupants during earthquake shaking) in schools where necessary.
- Conducting mock drill and a debriefing meeting held to evaluate the mock drill and the school program.
- Create a task force from members of school staff. Ask them to do mapping and develop plans and techniques of evacuation.

## Social Welfare Department

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- Staff Capacity building on mainstreaming DRR into sector.
- Risk assessment at community level and highlighting possible risks.
- Collection data of most vulnerable and marginalized groups.
- Suggestions and recommendation to other departments for gender sensitive and inclusive planning.
- To make its annual planning risk conscious.

## Public Health Engineering Department

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- Staff Capacity building on mainstreaming DRR into sector.
- Identification and ranking of critical assets.
- Assessment of Risks and determination of priorities for protecting PHE facilities.
- Sharing risk findings with concerned departments.
- Making development planning risk conscious and resilient.
- To recommend for small mitigation projects.
- To consult with other departments of annual DRM Plan.
- National risk assessments based on hazard data and vulnerability information are available and include risk assessment for key sectors.
- Systems are in place to monitor, archive and disseminate data on key hazards and vulnerabilities.
- Early warning systems in place and reaching and serving people at the community level.
- National public awareness strategy for water-related disaster risk reduction exists for all communities and people of all education levels;
- School curricula include water-related disaster risk reduction and instructors are trained in water-related disaster risk reduction at national through local levels;
- Land use development zoning and plans, building codes, and other national and local laws and regulations are in place;
- Water-related disaster risk reduction assessments are required for major infrastructure project proposals
- Water-related disaster risk reduction preparedness plans and contingency plans are in place at all administrative levels, and regular training and rehearsals are conducted to test and develop water-related disaster risk reduction response programmes;

- Capacity building and equipment exists for water-related disaster preparedness and response
- Financial reserves and contingency mechanisms are allocated to water-related disaster risk reduction.
- Elevated concrete platform for tube-wells.
- Elevated level for sanitary latrines with the prevention of any kind of leaching.
- High wall or embankment all around the ponds.
- Women friendly and “comfortable” technology for “children, old people, and disabled people”.

## Irrigation Department

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- Staff Capacity building on mainstreaming DRR into sector
- Identification of all types irrigation channels
- Risk assessment and determination of priorities for protecting Irrigation facilities
- Categorization of different risks and making risk transferring plan
- Keeping complete data of all sources of irrigation
- To recommend for small mitigation projects
- To consult with other departments for development of annual DRM Plan
- Making its annual planning Risk conscious
- Develop capacities of the irrigation department to mitigate floods and droughts
- Complete repairs of flood protection works in the pre-flood season
- Assist local authorities and communities in building rainwater harvesting tanks and systems in arid zones
- Review the plan for regulation of water supply
- Position machinery and materials near vulnerable points for emergency repairs
- Inspect breaching of sections and carry out final survey

## Coastal Guard

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- Prepare disaster management operation plan and emergency preparedness plan with regards to the mandate.
- Develop contingency plan specially for the coastal areas of Pakistan.
- Jointly organize training programmes with DDMA's for the coastal communities on first aid, evacuation etc.
- Prepare inventory of equipment and buildings and share it with PDMA and DDMA's.
- Disseminate warnings to the coastal communities for potential disaster.
- Coordinate with Maritime Security Agency (MSA) and Pakistan Navy about any ocean related natural and man-made hazards.
- Develop capacities in emergency response. e.g. evacuations, rescue, first aid etc.
- Keep liaison with the District, Provincial and National DM Authorities and PMD.
- Identify safer areas/buildings to be used as evacuation shelters, when needed.
- Keep liaison with the District, Provincial and National DM Authorities and PMD
- Identify safer areas/buildings to be used as evacuation shelters, when needed
- Warn coastal communities through public address systems and face to face contacts
- Assist most vulnerable families in evacuation to safer sites
- Conduct search and rescue to assist the trapped individuals, families and communities
- Coordinate with the Maritime Security Agency (MSA) about any ocean related hazards,

## Annexure-A = DRR Check List by Planning Commission of Pakistan:

### Planning Commission, Govt. of Pakistan

#### Checklist For Disaster Risk Reduction Infrastructure / Production Social Sectors

(Circulated vide No. 5(7) Misc./PP&H/PD/10, on 23 November 2010 as part of PC1 & PC2)

1. Which types of hazards have been considered as unavoidable for the project and thus a condition for its planning and design?

Indicate the relative order of importance of the hazards related to the project

<input type="checkbox"/>	Earthquake	<input type="checkbox"/>	Drought	<input type="checkbox"/>	Torrential Rains	<input type="checkbox"/>	Fire
<input type="checkbox"/>	Flooding	<input type="checkbox"/>	Glacier Lake Outburst	<input type="checkbox"/>	Windstorm	<input type="checkbox"/>	Technological
<input type="checkbox"/>	Landslides	<input type="checkbox"/>	Locust	<input type="checkbox"/>	Tsunami	<input type="checkbox"/>	Intense Erosion
<input type="checkbox"/>	Avalanche	<input type="checkbox"/>	Cyclone				
<input type="checkbox"/>	Others						

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2. Has the brief history of the identified hazard(s) in the area included in the PC - I.

Yes  No  Partial  N/A

3. Is the project prepared keeping in view the Building Codes of Pakistan 2007?

Yes  No  Partial  N/A

4. Is the project prepared keeping in view the prevailing Building bye-laws?

Yes  No  Partial  N/A

5. Does the project incorporate the prevailing territorial planning regulations (e.g. hazard zoning, institutional jurisdictions)?

Yes    No                       Partial             N/A

6. Have the components and activities of the project been designed to resist the impact of hazards, prioritized in Q. No. 1 above, and to contribute to the reduction of its vulnerability, and that of its surroundings and beneficiaries?

Yes    No                       Partial             N/A

Workshop on Role of Development Instruments in Disaster Resilience Development, 28-29 Dec 2010, Islamabad

7. What facilities are available in the area for rescue and emergency relief in case of a disaster?

Sr.	Facility	Controlling Organization	Distance from the Project (approx)
1	Fire Fighting Services		
2	1122 Rescue Service		
3	Edhi Service		
4	Other		

8. Are there adequate arrangements within the project site for firefighting?

Fire alarms                       Fire hoses                       Fire extinguishers  
 Automatic sprinkler system

9. Are there funds for mitigation and periodical maintenance of its components, incorporated and meant to reduce the vulnerability of the project and its surrounding population?

Yes             No                       Partial             N/A

10. Does the budget and cash flow of the project include items allowing the coverage of structural activities for risk management?
- Yes     No     Partial     N/A
11. Does the budget of the project include provision to respond to emergencies (e.g. alert, contingencies, mitigation, and rehabilitation)?
- Yes     No     Partial     N/A
12. Does the project include a campaign of awareness raising, training and understanding to risk management for planners, workers and beneficiaries?
- Yes     No     Partial     N/A
13. Does the budget and cash flow of the project include items allowing the coverage of non-structural activities for risk management?
- Yes     No     Partial     N/A
14. Do service, transfer, concession and reclamation contracts incorporate provisions for risk management?
- Yes     No     Partial     N/A
15. Does the project incorporate an adequate contingency plan for possible disasters?
- Yes     No     Partial     N/A
16. Does the project incorporate any instruments for its financial protection during execution and after the completion of the project (insurance, indemnity, guarantee, contingency credit arrangements, etc.)?
- Yes     No     Partial     N/A

17. Are there any financial or moral incentives to promote risk management?  
 Yes    No    Partial    N/A
18. Is there provision in the budget for the periodic training of workers and staff to use fire extinguishers, first aid kits, and light search and rescue equipments available within the project site?  
 Yes    No    Partial    N/A
19. Is the evacuation plan prepared, evacuation routes and safe assembly areas indentified?  
 Yes    No    Partial    N/A
20. Is the communication system for emergencies established, including a warning system wherever appropriate?  
 Yes    No    Partial    N/A

**Question 21 & 22 are related to Production Sector only:**

21. Are there adequate arrangements for storage of toxic and hazardous substances?  
 Yes    No    Partial    N/A
22. Is the piping network for distribution of hazardous materials safe to prevent major spill or leakages?  
 Yes    No    Partial    N/A

IMMEDIATE

GOVERNMENT OF PAKISTAN  
PLANNING COMMISSION  
PLANNING AND DEVELOPMENT DIVISION  
(Public Investment Authorization Section)  
\*\*\*\*\*

No. 5(7)Misc./PP&H/PD/10

Islamabad, the 23<sup>rd</sup> November, 2010

C I R C U L A R

Subject: INTEGRATION OF DISASTER RISK REDUCTION INTO DEVELOPMENT PROCESS

It has been decided that in future all development projects requiring approval of Government should give due consideration to vulnerability from natural and human induced disasters and incorporate measures of disaster risk reduction at the project design, planning and implementation stages. Accordingly Checklist (Infrastructure, Production and Social Sectors) are enclosed which may be made part of PC-I & PC-II for consideration of competent forum (i.e. DDWP, CDWP, PDWP, ECNEC).

2. This issues with the approval of the Deputy Chairman, Planning Commission.

Encl: Check List

  
(Zulfikar Ali Kayhan)  
Research Officer  
Tel/9093621

**All Federal Secretaries / Addl. Secretaries (Incharge of Ministries / Divisions)  
All Chief Secretaries / Chairman P&D / ACS (Dev.) Provincial Governments /  
Departments, Govt. of AJK, Govt. of Gilgit Baltistan and ACS(FATA).**

Copy to:-  
(1) Members, Planning Commission, Islamabad.  
(2) Additional Secretary (Admn.) P&D Division Islamabad  
(3) Chiefs/ Heads of Technical Sections, P&D Division, Islamabad.  
(4) Chief, PIA, P&D Division, Islamabad.  
(5) Project Director (MPFP), Projects Wing, Chughtai Plaza, Islamabad.  
(6) NPD (DERA)  
(8) All Project Directors, P&D Division, Islamabad.

C.C to:-

(1) PS to Deputy Chairman, Planning Commission, Islamabad.  
(2) PS to Secretary, Planning & Development Division, Islamabad.

## Annexure-B

To effectively mainstream DRR aspects into project development cycle, DRM team has defined indicators and levels of attainment to mainstreaming DRR into development process at local level (see matrix below)

Phase	Entry Points	Indicators
PC-1	Project Identification and Appraisal	Filled checklists with disaster related issues.
PC-2	Project feasibility (physical and economical)	Evaluation of filled DRR check lists Project budget includes fund for risk assessment, mitigation
PC-3	Project implementation (monitoring)	List of specific parameters identified to incorporate disaster risk consideration in project
PC-4	Project completion	Presence of systematically incorporated DRR proofing
PC-5	Project evaluation	The given DRR specification in the project are incorporated and effectively working → sustainability

### 4.2 The Five Planning Stages and their Relevant Documents

#### PC - 1 Document

It is the complete project document which gives the information about concept, problem statement and financial issues. The document also gives complete details on the following:

1. name of the project
2. Location
3. Authorities responsible for:
  - i. Sponsoring
  - ii. Execution
  - iii. Operation and maintenance
  - iv. Concerned federal ministry

4. Plan provision
5. Project objectives and its relationship with sector objectives
6. Description, justification, technical parameters and technology transfer aspects (enclose feasibility study for projects costing Rs 300 million and above).  
The evaluation of the sustainability of the project makes reference to disaster risks.
7. Capital cost estimates
8. Annual operating and maintenance cost after completion of the project
9. Demand and supply analysis
10. Financial plan and mode of financing
11. Project benefits and analysis
  - i) Financial
  - ii) Economic
  - iii) Social benefits with indicators
  - iv) Employment generation (direct and indirect)
  - v) Environmental impact
  - vi) Impact of delays on project cost and viability
  - vii) Disaster risk resilience (checklist)
12.
  - a) Implementation schedule
  - b) Result Based Monitoring (RBM) Indicators.
13. Management structure and manpower requirements including specialized skills during construction and operational phases
14. Additional project/decisions required to maximize socio-economic benefits from proposed project
15. Certified that the project proposal has been prepared on the basis of instructions provided by the planning commission for the preparation of PC-1 for production sector project.

## **PC - 2 Document**

This level of documentation provides information about;

1. Name by which survey/ feasibility will be identified, Administrative authorities responsible for
  - i) Sponsoring
  - ii) Execution

2. Details of survey/feasibility study
  - i) General description and justification; including disaster risk consideration
  - ii) Implementation period
  - iii) Year wise estimated cost
  - iv) Manpower requirements
  - v) Financial plan
3. Expected outcome of the survey feasibility study and details of projects likely to be submitted after the survey.

### **PC - 3 Document**

1. Name of the project
2. Approved capital cost
3. Expenditure up to the end last financial year
4. PSDP allocations for the current year
5. Annual Work Plan
6. Quarterly work plan based on annual work plan
7. Cash Plan
8. Output indicators : including monitoring of disaster risks (mainly hazards in the areas) to be determined by project director on the basis of indicators given in the PC- I

### **PC - 4 Documents**

1. Name of the Projects
2. Implementation period
  - a) As per PC-I
  - b) As per actual
3. Capital Cost
4. PC-I phasing/allocations, releases & expenditure
5. Item-wise physical targets and achievements
6. Item-wise planned & actual expenditure
7. Quantifiable benefits of the projects
  - a) Financial
  - b) Economic
  - c) Social

- d) Employment generated
- 8. Financial/Economic results based on actual costs
  - a) Financial
    - Net present worth
    - Benefit cost ratio
    - Internal financial rate of return
    - Unit cost analysis
  - b) Economic
    - Net present worth
    - Benefit cost ratio
    - Internal economic rate of return
- 9. Whether the Project has been implemented as per approved scope of the project. If not provide detailed justification of variation .
- 10. Impact of the Project on target group
- 11. Lessons learned in :
  - a) Project identification
  - b) Project preparation
  - c) Project approval
  - d) Project financing
  - e) Project implementation
- 12. Suggestions for planning & implementation of similar projects

### **PC - 5 Documents**

1. Name of the Project :
2. Objectives & Scope of projects as per approved PC-I and state as to what extent the objectives have been met, DRR Considerations included
3. Planned & actual recurring cost of the project, with details :
4. Planned and actual employed :
5. Planned and actual physical output of the project :
6. Planned and actual income of the project :
7. Planned and actual benefits to the economy :

8. Planned and actual social benefits :
9. Planned and actual cost per unit produced /sold :
10. Marketing mechanism :
11. Arrangement for maintenance of building & equipment .
12. Whether output targets as envisaged in the PC-I have been achieved . If not , provide reasons :  
DRR issues included
13. Lessons learned during the year in :
  - . Operation
  - . Maintenance
  - . Marketing
  - . Management
14. Any change in project management during the year :
15. Suggestions to improve project's performance :

ERRA DRM programme is aware of the fact that district projects planners and stakeholders have demanding workloads and schedules . The checklist guidelines, therefore, state closely that main aim is not to add new sets of obligatory guidelines or criteria to projects designs, but to raise operational team's awareness of risk management and provide a set of tools to help them integrate risk reduction measures into project cycle. Nevertheless, use of the checklist is fundamental to the whole process of the project design.

## References:

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1. National Disaster Management Plan (2012-2022). National Disaster Management Authority, Islamabad: 2012).
2. National DRR Policy (2013)
3. Multi Hazards Contingency Plan- Sindh Province. Provincial Disaster Management Authority, Karachi: 2013).
4. Tools for mainstreaming DRR (Charlotte Benson and John Twigg with Tiziana Rossetto 2007)
5. Participants Handbook (Workshop on Role of Development Instruments in Disaster Resilience Development organized by Planning Commission supported by NDMA 2010)
6. Mainstreaming DRR & CCA into Development Process at Local Level (Oxfam Novib, ADPC)
7. A guide to mainstreaming guiding principles disaster risk reduction and climate change adaptation (IFRC)



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