



Analytical Study
On
***“Public Financing on Disaster Risk
Reduction (DRR) and its Effectiveness”***
In
District Bagh AJK

Conducted by

Waheed Shah

DRR/CCA Practitioner & Consultant

Table of Contents

<i>S#</i>	<i>Description</i>	<i>Page #</i>
01	List of Acronyms	
02	Foreword	
03	Acknowledgment	
04	Executive Summery	
05	Profile of Azad Jammu & Kashmir (AJ&K)	
06	Profile of District Bagh AJK	
07	Strategic Framework of AJK DRM Plan	
08	Action Plan of AJK DRM	
09	Potential Hazards in District Bagh AJK	
10	Study Findings	
11	Annexure	
12	References	

List of Acronyms

AJK	Azad Jammu & Kashmir
AApk	ActionAid Pakistan
BCDP	Bagh City Development Program
BDA	Bagh Development Authority
CBDRR	Community Based Disaster Risk Reduction
CCA	Climate Change Adaptation
CBOs	Community Based Organizations
CDD	Civil Defense Department
CSOs	Civil Society Organizations
DC	Deputy Commissioner
DDMA	District Disaster Management Authority
DRR	Disaster Risk Reduction
DRM	Disaster Risk Management
DDRM	District Disasters Risk Management
DEOC	District Emergency Operation Centre
EOC	Emergency Operation Centre
EW	Early Warning
EWS	Early Warning System
ERRA	Earthquake Reconstruction and Rehabilitation Authority
EQ	Earth Quake
HFA	Hyogo Framework for Action
HVCA	Hazards, Vulnerability & Capacity Assessment
NDMA	National Disaster Management Fund
NDMF	National Disaster Management Fund
PTV	Pakistan Television
PBC	Pakistan Broadcasting Corporation
P&DD	Planning & Development Department
PWDs	People with Disabilities
SDMF	State Disaster Management Fund
SERRA	State Reconstruction and Rehabilitation Authority
SEOC	State Emergency Operation Centre
STF	Save the Future
SOPs	Standard Operating Procedures
SAR	Search and Rescue
SDMA	State Disaster Management Fund
SDMC	State Disaster Management Commission
SW&WD	Social Welfare & Women Development
UC	Union Council
UN	United Nations
USAR	Urban Search and Rescue

Foreword

In the aftermath of 2005 devastating Earthquake (EQ) there was tremendous response by the international and local humanitarian actors. At that time it was largely recognized that we being a nation not prepared for disaster risk management at any level. Keeping in view the adverse impact of EQ state government of Azad Jammu & Kashmir (AJ&K) established the State Disaster Management Authority with technical support of National Disaster management Authority (NDMA). ***SDMA was established with vision “safer and prosperous communities in AJK and mission “Mainstreaming disaster risk reduction into development planning and enhancing institutional and community capacities for disaster mitigation, preparedness, response and recovery”.*** Which influenced the Save the future to conduct analytical study that what have been achieved after the establishment of SDMA.

Save the Future (STF) is a nongovernmental and nonprofit organization striving for the empowerment of most vulnerable segment of society. STF was established in 2009 with the technical and financial support of ActionAid Pakistan (AAPk). Being a rights and advocacy based organization it's the mandate of organization to conduct studies on different issues for advocacy purposes and influence the government and other stakeholders to deliver effectively in the best interest of people. STF believe in people centered approach and just and democratic governers. Purpose of the study is to assess the public financing on DRR and its effectiveness at district Bagh level and identify the potential areas for further concentration.

We really appreciate STF board of directors to concentrate on such a critical issue. We also really appreciate and endorsed staff commitment and efforts to deliver effectively in the interest of vulnerable people. We take this opportunity to pay gratitude to AAPk for financial support which enabled us to conduct study on such an important issue. We are extremely grateful to AAPk area office Abbotabad for technical support for study.

We would also like to offer special thanks to Mr. Waheed Shah, who conducted study with enthusiasm and in close coordination with STF and other stakeholders.

Hope STF and other stakeholders would be able to advocate effectively in the light of study findings.

Wish for safer and resilient communities and human being



Raja Mehatab Ashraf

President Save the Future



Mr. Asif Naiem

Program Manager (STF)

Acknowledgment

Successive disasters are now potential threat for human lives, livelihoods, infrastructure and environment. Climate change and global warming is an origin of number of hazards and disasters globally and locally. In these circumstances and scenario there is no concept of sustainable development in the absence Disaster Risk Reduction (DRR) and Climate Change Adaptation. DRR and CCA itself is not a sector/ department, it's an approach to mainstream and integrate those in policies, planning and implementation. Now there is immense need to understand and recognize the significance of DRR and CCA mainstreaming in overall development initiatives and interventions. Hope study findings will contribute to realize and strengthen the DRR work at various level and will cover both structural and non structural (policy, planning and implementation).

I would like to thank Save the Future (STF) for given me the opportunity to conduct study on such an important area. I really appreciate STF staff and governance commitment to advocate on critical issues to make the communities/ people safe and resilient to future potential disasters. My special thanks would go to Mr. Mehtab Ashraf (President STF) for support and strategic guidance during the assignment. There was tremendous support by Mr. Asif Naiem (PM-STF), Mr. Sardar Zaheen Khan (admin & finance officer), Mr. Raja Iqbal (DRR focal person) and Mr. Liaqat Hussain (admin assistant) during the study. Finally I would like to thank Mr. Tabriz Shamsi Project Manager SPO for his technical support during the assignment.

I would like to take opportunity to thank;

- Mr. Sardar Muhmmad Nawaz Kahan (Secretary/ DG SDMA), Mr. Raja Sajjad (Director) and Mr. Mohzim Zafar (Assistant Director) SDMA Muzaffarabad
- Mr. Abdul Hameed Mughal (Deputy commissioner and head of DDMA Bagh) for detail information regarding status of DDMA and overall challenges and issues
- Mr. Ikram ul Haq (Assistant Director SW&WD department Bagh)
- Dr. Syed Liaqat Hussain Shah (District Livestock officer Bagh)
- Dr. Sardar Muhammad Idress Kahan (District Health Officer Bagh)
- Mr. Raja Roshan Johar (District Education Officer Bagh)
- Mr. Raja Maqbool (AD) & Mr. Khawaja Ghualm Muhmmad (AD Agriculture Bagh)
- Mr. Tahir Abbasi (President press club Bagh), Mr. Raja Hafeez (president Jammu Kashmir journalists org), Mr. Raja Ashraf (president CUJ Bagh)
- Mr. Sardar Kabier Chughtai
- Mr. Irshad Khan (Assistant Director (AD) Local Government Bagh)

Waheed Shah



DRR/CCA Practioner/ Consultant

Executive Summary

Natural and human induced hazards are common phenomenon in Azad Jammu & Kashmir and people are suffering with regular intervals. District Bagh is one the vulnerable and hazard prone area, which witnessed devastating impact of 2005 earthquake. The 8 October 2005 earthquake (EQ), measuring 7.6 on the Richter scale, struck at 8.52 am. The epicenter of the quake was situated 90.2 km north-east of Islamabad, in Azad Jammu and Kashmir (AJK). Covering a total area of some 30,000 sq. km, five districts of Azad Kashmir Muzaffarabad, Bagh, Poonch, Haveli and Neelam and five of NWFP Mansehra, Battagram, Kohistan, Abbotabad and Shangla were the most badly affected with damage on a massive scale. But the impact was felt as far away as Islamabad and northern parts of Punjab. The 11-storey Margalla Towers Apartment Complex in the capital collapsed killing dozens of residents. Earthquake caused over 73,000 deaths, left many more people seriously injured and destroyed homes, schools, hospitals and infrastructure on large scale.

According to NDMA reports in district Bagh 8,157 people died and around 24,000 injured during earthquake. Overall infrastructure was badly collapsed and mobility was quite difficult to carry out the search and rescue and relief operations. It's largely believed and recognized that lack of preparedness and risk reduction was major cause of the devastating impact of disaster. Now after more than six years of disaster it was appropriate time to assess and know the disaster preparedness and risk reduction measures at district level to mitigate the impact of future disasters.

Save the future (STF) in collaboration with ActionAid Pakistan (AAPk) initiated analytical study to know and assess the overall preparedness and risk reduction measures at district Bagh level. Major focus of the study was public financing on Disaster Risk reduction (DRR) and its effectiveness at district level. At initial stage of study, unfortunately it's learned that yet DRR is not a priority at district level (state level), even departmental heads are not familiar with DRR approaches and there is no departmental contingency/ preparedness plan at all. Still there is no initiative to strengthen District Disaster Management Authority (DDMA) and development of comprehensive Disaster Risk Management (DDRM) in collaboration and consultation with stakeholders. Its unfortunate there was no public financing to DDMA or other department for DRR purposes. In this scenario there was no space to assess and discuss public financing on DRR and its effectiveness. Therefore study focused shifted towards identification of major strengths and areas of improvement in the field of DRR at district level. **Although number of organization (ERRA, PRCS, STF/AAPk, Maltiser International, Islamic Relief, SPO, NRSP, STAR Foundation, etc) have done tremendous work on community based DRR with institutional donor funded. Hence study focused was public financing therefore study team did not focused on donor funded DRR activities.**

As per AJ&K State Disaster Management Authority (SDMA) DRM plan (2009-11), district Bagh DDMA and DRM plan would have fully established by 2011. Hence there is no development in this regard and its being expected that it would take long time and incase of any disaster people would suffer same like 2005 earthquake. It is dominant perception among SDMA high officials that SDMA/DDMA is a newly formed and infant department and it will take time to fully established and functional at all level. Keeping in view the mandate and significance of department in the aftermath of 2005 EQ, that was the requirement of time to establish and

strengthen the SDMA and DDMA on priority and emergency basis. SDMA is relying on donor funds and external resources, yet there is no considerable financing by state or federal government for preparedness and risk reduction purposes. At district and DDMA level there is no concept or commitment of public financing, therefore it is challenge for study team that how study objectives would be meet (to know and assess the effectiveness of public financing on DRR at district Bagh level).

There is felt need to decentralize the DRR and preparedness initiatives at district, Teshils, Union councils (UCs) and community level which is closely associated with local government system. Even National Disaster Management Authority (NDMA) is part of prime minster secretariat which is almost inaccessible due to security issues.

After in-depth analysis following are major findings of the study which need to advocate for implementation and acceleration of DRR initiatives at district level with adequate financing. SDMA Disaster Risk Management (DRM) plan is covering multiple aspects of DRR and seeking attention for implementation at various levels.

1. Lack of political commitment to strengthen the DRR initiatives/ institution at district and grassroots level with adequate financing. No contingency funding available both at DDMA and departmental level to be prepared and response any emergency timely and effectively.
2. No public financing for DRR at district level even after the establishment of the SDMA (in 2007) and notification of DDMA
3. Centralization of DRR initiatives/ institution and yet no mechanisms in place to decentralized DRR and preparedness at grassroots (District, Tehsils, UCs & community) level
4. No comprehensive District DRM plan, as per State DRM plan this has to be develop by 2011. Effective coordination mechanism also lacking at district level to discuss the DRR mainstreaming and preparedness issues.
5. None of departmental/ sectoral specific DRM plan to be prepared and risk reduction in their respective areas of work
6. No initiative has been taken to establish the District Emergency Operation Centre (DEOC) to coordinate and timely response any emergency/ disaster
7. Emergency stockpiling has been provided by ERRA both at district and UCs levels. Available stockpile is not being managed effectively even respective departments are not fully aware what they have and how they will use that. Technical human resource is major concern at DDMA level and no technical training has been provided to DDMA by respective agency for use of sophisticated equipments in case of disasters.
8. None of Early Warning System (EWS) in placed at district and grassroots levels. One of the international NGO installed EQ EWS in two UCs of district Bagh which are out of order and DDMA is not fully informed and aware about that.

9. Search and Rescue (SAR) remaining a weak area particularly Urban Search and Rescue (USAR)
10. Firefighting capacity both buildings and forest is alarming there are no sophisticated equipments with trained human resource at district to manage fire
11. Climate change and global warming is one of the leading and complex hazard, hence no realization in this regard to mitigate and adapt the climate change.
12. Lack of DRR and CCA mainstreaming both structural and non structural development initiatives.
13. Development driven hazards and lack of quality construction remain a potential risk for Bagh town. Effective mechanism is not in place to ensure quality construction with enforcement of buildings code.
14. As per State DRM plan district DRM plan would have to be developed without emphasis on urban/town specific planning. Urban DRM planning and management is different from rural.
15. No check on rural housing construction quality and no mechanism existing to enforce and monitor building codes implementation.
16. Yet technical unit has not been established at DDMA level in the supervision of Deputy Commissioner (DC) to manage the DDMA affairs effectively.
17. District departments lacking capacity technical, financial and human to mainstream DRR and to be prepared for disaster management. After 2005 EQ parallel departments have been established rather than strengthening the existing departments.
18. None of the data base of most vulnerable people like, women headed houses, widows, people with disabilities (PWDs), orphans, HIV/AIDs and other chronic diseases, senior citizen etc to reach them in case of any emergency and support them in pre disaster phase.
19. Information access and sharing is one of the major aspects of DRR, whereas SDMA/DDMA website has not been developed yet.
20. Strengthening of media (press club, local FM radio etc) for awareness rising, information sharing and early warning is important. Media person's capacity building regarding DRR is equally important, which is lacking.
21. Lack of gender, disability and other cross cutting areas mainstreaming in DRR is an area of concern.

Chapter one

Azad Jammu & Kashmir and District Bagh Profile

Profile Azad Jammu & Kashmir (AJK)

Azad Jammu and Kashmir lies between longitude 73° - 75° and latitude of 33° - 36° and comprises of an area of 5134 Square Miles (13297 Square Kilometers).

The topography of the area is mainly hilly and mountainous with valleys and stretches of plains. Azad Kashmir is bestowed with natural beauty having thick forests, fast flowing rivers and winding streams, main rivers are Jehlum, Neelum and Poonch. The climate is sub-tropical to temperate highland type with an average yearly rainfall of 1300 mm. The elevation from sea level ranges from 360 meters in the south to 6325 meters in the north. The snow line in winter is around 1200 meters above sea level while in summer, it rises to 3300 meters.

According to the 1998 population census the state of Azad Jammu & Kashmir had a population of 2.973 million, which is estimated to have grown to 3.963 million in 2010. Almost 100% population comprises of Muslims. The Rural: urban population ratio is 88:12. The population density is 298 persons per Sq. Km. Literacy rate which was 55% in 1998 census has now raised to 64%. Approximately the infant mortality rate is 56 per 1000 live births, whereas the immunization rate for the children under 5 years of age is more than 95%.

The majority of the rural population depends on forestry, livestock, agriculture and non-formal employment to eke out its subsistence. National average per capita income has been estimated to be 1254 US\$*. Unemployment ranges from 9.0 to 13%. In line with the National trends, indicators of social sector particularly health and population have not shown much proficiency. Efforts have been made during the recent past to make up this deficiency so that the fruits of development can be brought to the door steps of common men.

Area under cultivation is around 193456 hectares, which is almost 13% of the total Geographical area out of which 92% of the cultivable area is rain-fed. About 89% households have very small land holdings between one to two acres. Major crops are Maize, Wheat & Rice whereas minor crops are Grams, Pulses (red kidney beans), Vegetables and Oil-seeds. Major fruits produced in AJK are Apple, Pears, Apricot and Walnuts. Agriculture and livestock income ranges between 30-40% of household earnings.

The remaining share comes from other sources including employment, businesses and remittances received by the families of Kashmiries living abroad working abroad. Reduced agriculture productivity has adversely affected the traditional lifestyle and per capita income of the rural households.

About 42.6% of the total Geographical area (0.567 million hectares), is controlled by the Forests Department. The per capita standing volume is 330 Cft and per capita forest area is 0.38 Acre. Annual wood demand is 1.65 million cubic meters and sustainable production is 1.94 million cubic meters. The local communities have traditional rights in terms of use of the forests and on an average three trees are burnt by one household every year for the fuel-wood requirements in the absence of alternate sources. Similarly about 5 trees on average are required to construct a house for which the wood roofs have to be replaced after every 8-10 years.

Profile District Bagh (AJK)

Bagh District is one of the ten districts of Azad Jammu & Kashmir (AJ&K). The district, which had been part of Poonch District, was created in 1988. The district is bounded by Muzaffarabad District to the north, Poonch district to the south, and Haveli District to the east; it is bounded by the Punjab, Rawalpindi District and Abbottabad District of Pakistan's N Khyber Pakhtoonkhaw province to the west. The total area of the district is 770 square kilometers. Bagh District is linked to Muzaffarabad by two roads, one via Sudhan Gali (80 km) and the other through Kohala (97 km). It is situated 46 km from Rawalakot. Bagh District was created with three sub-divisions, namely Dhirkot, Bagh and Haveli, with its headquarters at Bagh. Now Haveli is a separate district. As per planning and development department AJK projected population (2011) of district Bagh is 0.365 million.

Topographically, the entire Bagh district is a mountainous area, generally sloping from northeast to south-west. The area falls in the lesser Himalayas zone. The main range in the district is Pir- Panjal. The Haji-Pir Pass is situated at the height of 3421 meters above sea level. The general elevation is between 1500 and 2500 meters above sea level. The mountains are generally covered with coniferous forests. Mahl Nala, in the Bagh sub-division is the main stream. However, numerous other rivulets flow in the district.

The climate of the district varies with altitude. The temperature generally remains between 2 °C to 40 °C. The main eastern part of the district is very cold in winter and moderate in summer. However, the lower valleys, the localities bordering Bagh at Kohala and its adjoining areas (Mongbajri and Ajra-Bagh) remain cold in winter and hot in summer. May, June and July are the hottest months. Maximum and minimum temperatures during the month of June are about 40 °C and 22 °C respectively. December, January and February are the coldest months. The maximum temperature in January is about 16 °C and minimum temperature is 3 °C respectively. Annual rainfall is about 1500 millimeters.

Chapter two

Azad Jammu & Kashmir (AJK) Disaster Risk Management (DRM) Strategic Framework and Action Plan

Priority Strategies for Disaster Risk Management (DRM)

Disaster Risk Management Strategic Framework

It's worthy to understand the AJ&K State Disasters Risk Management (DRM) strategic framework and action plan before go into district specific activities. These are guiding documents for overall DRM at state, district and grassroots level. Following are strategic framework and action plan, while remarks column of action plan is briefly depict the overall status of implementation;

Strategic priority – 1: Institutional & legal framework

In the wake of Great 2005 Pakistan Earthquake, the absence of relief coordination agency and (near) collapse of civilian apparatus in AJ&K to deliver on mandated roles underlined the need to have a specialized agency with an exclusive mandate to deal with disaster risk management and coordinate emergency response. In this backdrop,

The institutional and legal framework manifested as a strategic priority for effective disaster management. It is of paramount importance that the focal institution for disaster risk management should also have requisite legal backing to secure adequate resources and exercise authority as to deliver on its mandated role. During this period of heightened awareness and sensitivity, the government of AJ&K has promulgated the Azad Jammu and Kashmir Disaster Management Ordinance 2007 (please refer Annex 8 AJ&K Disaster Management Ordinance for details). With the promulgation of ordinance, a multi-sectoral Disaster Management Commission (DMC) has been established with AJ&K Prime Minister as the chairperson. The DMC is primarily an advisory body with responsibilities to lay down policies, plans and guidelines for disaster management. The ordinance proposes establishment of Azad Jammu and Kashmir Disaster Management Authority (herein after called as Disaster Management Authority -DMA) which shall work as lead operational agency, headed by a Director General. The DMA with a Head Office in Muzaffarabad would have representation at district levels initially. However, it may expand its outreach by having representation at Tehsil

and Union Councils subsequently (for mandate, operations and organizational structure of DMA and DDMA refer subsequent sections).

Strategic priority – 2: Hazard vulnerability mapping

AJ&K is a hazardous region and inhabitants are exposed and regularly experience a plethora of different disasters. It is pertinent to mention that no systematic information is available on hazards, vulnerabilities and risks in AJ&K. As these are dynamic processes there is a need to continuously monitor and analyze the hazard vulnerability context to plan and implement effective disaster risk management interventions. The evolving risk context of AJ&K with respect to interplay of multiple hazards and vulnerability exposure of the State it, came out as a strong strategic priority to have comprehensive and updated information on risk environment by using tools such as hazard & vulnerability assessments, risk maps etc.. The information generated through research shall help make informed policy and operational choices and also shall help drawing disaster risk management and contingency plans. In the framework of continuous assistance for reconstruction and rehabilitation, multi-hazard micro-zonation maps have been produced for Muzaffarabad and Bagh cities. The maps highlight the risk context of two cities which shall guide the city planning and reconstruction work particularly with reference to resettlement of communities and reconstruction of damaged public infrastructure. There is an acute need to further expand the knowledge base in AJ&K to add risk sensitivity element to future development actions.

Strategic priority - 3: Training, education and awareness

The importance of training, education and awareness cannot be over-emphasized for effective disaster risk management. The aim should be to train and educate people at varying levels i.e. parliamentarians, civil servants, outreach workers and communities, to develop a cadre of experts and trainers to continuously assess and monitor disaster risks and develop/implement effective risk reduction plans and policies.

The specialized areas which should be accorded priority in delivering disaster management training are risk assessments, community based disaster preparedness, land use planning, contingency planning, search, rescue and evacuation, first aid, fire fighting, shelter and site planning, relief and camp management, water and sanitation, early recovery and others. Specialized school training programmes could be introduced to educate and sensitize children. Education syllabi could also have chapters on DRM. The training curricula for public officials at respective departmental institutes and specialized training agencies like NIPA could also have chapters or courses on DRM. Training, education and awareness have come up as a strategic priority, especially in the aftermath of earthquake 2005, which highlighted serious capacity gaps in terms of training and education in disaster management both with public officials and communities at large. This, being a priority strategic area, has been reflected in the recently promulgated AJ&K DMO 2007, which envisages setting up training institute for disaster management. It is advised that a cadre of trainers (trained nationally and internationally) should be developed first. Those trained should then conduct a broader training need assessment to map the current capacities & training needs. Based on the assessment the

trainers should be tasked to devise training curricula which corresponds to AJ&K context and training needs of parliamentarians, policy makers, public officials and communities.

Strategic priority – 4: Promoting disaster risk management planning

Disaster management in AJ&K has traditionally been reactive where focus has always been on relief and recovery with some exceptions where pre-disaster plans were set up like seasonal flooding. The scale of earthquake 2005 has even exposed the gaps and institutional weaknesses in terms of delivering rescue, relief, recovery and reconstruction.

It recommends context specific risk reduction measures in this backdrop; disaster risk management planning manifested itself as a key strategic priority. The disaster risk management planning as a process includes risk assessment, prevention and preparedness planning. At institutional level, it would require all line departments to develop sector specific risk management plans, develop coordination and support mechanisms across different sectors/departments with defined roles, expectations, standards and accountability procedures. Also, it would include participation of civil society organizations, academia and research institutions to help deliver on shared responsibilities. Essentially, these plans are to be developed across different sectors and at different administrative tiers which would provide guidelines on minimizing the adverse effects of hazards through effective disaster risk reduction, preparedness and adequate, timely and coordinated response. In the wake of earthquake 2005, four District Disaster Risk Management Plans (Muzaffarabad, Neelum, Bagh and Poonch) have been developed for AJ&K with the assistance of ERRR/SERRA. Each plan takes into account the hazard and vulnerability context with that of capacities in AJ&K. including preparedness and response planning which shall become operational in case disaster strikes. The AJ&K DRM Plan is a consolidated document which gives a comprehensive snapshot of AJ&K risk context, priority strategies, medium term action plan, structure and mandate of DMA, potential roles of public agencies and civil society, composition and management of emergency operations center.

Strategic priority – 5: Community and local level risk reduction programming

The community engagement and participation in risk reduction planning is critical and essential for successful disaster risk management. Communities, being first responders to the disasters, have an important role to play in reducing hazard risks, effective preparedness planning and mounting rapid response in order to save lives and assets. The investments in building capacities of communities in risk reduction planning and management came up as strategic area of intervention. The training and capacity building of local officials, communities, businesses and civil society could contribute in risk responsive development planning with effective community preparedness could help reduce the human and material losses due to impending disasters. AJ&K DMA with respective DDMA's, civil society groups and public agencies like civil defense, local governments could take lead in devising community and localized risk reduction plans and equip community activists, local officials and civil society groups with appropriate skills and technology to effectively plan and deliver in case of an eventuality.

Strategic priority – 6: Multi-hazards early warning

The hazard early warning consists of collection, consolidation, analysis and dissemination of risk information. The early warning information is crucial in making informed and timely choices around evacuation and issuing public warnings and alerts which offers immense potential to contribute in mitigating disaster impact. In AJ&K hazard monitoring institutional arrangements are either weak or ill-equipped to deliver timely and reliable information. There are concerns around the communication arrangement and mechanisms especially to remote mountainous areas. The multi-hazards early warning system exhibited itself as an important and strategic area of intervention. The rapidly evolving hazard monitoring technology with added reliability combined with cheaper modes of communication has made it even more accessible. The availability of mobile technology in should be seen as major development that could help for effective dissemination of early warning information. Also, there are other technological tools which are becoming increasingly important in the backdrop of increased frequency and impact of disasters.

Strategic priority – 7: Mainstreaming disaster risk reduction into development

Disasters are increasingly being coined as development failures, and the context analysis in terms of hazard risks is advocated as critical for achieving the goal of sustainable development. Often it is cited that development initiatives remain unsustainable as long as they fail to address risk context of environment in which they are planned and are to operate. The mainstreaming of disaster risk reduction into development should not be mistaken as one off action or an end itself rather it should be looked at as a process and a mindset, which is crucial to set foundations for sustainable and lasting development. It is multi-sectoral process thus making all development actors equally responsible and accountable to do proper risk assessments before designing and approving development initiatives and monitoring risks while such interventions are in operation. In the context of AJ&K, mainstreaming of disaster risk reduction into development programming is evidently an obvious strategic choice. This involves devising legal instruments, instituting best practices and mandatory procedures in public sector development planning, developing effective monitoring and evaluating systems and mechanisms with other measures to ensure hazard risk concerns have been addressed at all stages of development initiatives. Furthermore, it envisages building capacities within public agencies and creating enabling work culture so risk reduction measures could become part of mainstream development planning and implementation.

Strategic priority – 8: Emergency response & post disaster recovery system

The disaster management system in AJ&K remained largely reactive, nonetheless the capacities even to handle emergency response remained weak. The emergency response put-up in the aftermath of Earthquake 2005 exposed the structural, systemic and operational weaknesses of the existing emergency response system. To mount an effective emergency response, it is of paramount importance that organizational roles, responsibilities and coordination mechanisms

have been streamlined. The responsibilities and expectations are well understood and communicated at all levels i.e. state, districts, sub-districts etc. The emergency response systems, modalities and coordination mechanisms ought to be discussed and agreed while developing localized, regional and state level emergency preparedness plans. At strategic level, it envisages That all public agencies should develop preparedness/contingency plans and must develop and maintain institutional capacities (technical, material, financial) to be able to deliver on expected roles. Besides emergency response planning, all key stakeholders would have responsibility to plan and implement early recovery and rehabilitation programmes. Public sector plans should also take into account recovery and rehabilitation needs and design need driven recovery and development plans.

AJK Disaster Risk Management (DRM) Action Plan (2009-11)

Sr. #	Strategic Areas/ Activity Description	Timeframe & cost estimation (Rs. in millions)			Responsible agencies	Existing Status
		2009	2010	2011		
1. Institutional and Legal Arrangements						
1.1	Establishment of SDMA/ operatives	77.802	53.818	45.728	AJK Govt (chief secretary, SDMC, S&GAD, P&DD and law dept)	Disaster management ordinance has been adopted by state legislative assembly. Overall DRM framework and SOPs have been developed. While need to develop comprehensive DRR policy.
1.2	Establishment of AJK state SEOC/ 24 hours operative	8.796	6.846	6.846	Chief secretary, P&DD, Finance dept, SDMA, Board of Revenue, Civil defense, S&GAD	EOC has been established with financial and technical support of donors' agencies. Whereas State government render support in center infrastructure development.
1.3	Establishment of 8 districts DDMA's with DEOCs/ 24 hours operative	85.598	65.000	65.000	Chief secretary, P&DD, Finance dept, SDMA, Board of Revenue, Civil defense, S&GAD	No development in this regard particularly in district Bagh. There is some development in Muzaffarabad and Neelum with UNDP support.
1.4	Development of policies, system and rules for SDMA & DDMA's	0.984			Chief secretary, SDMA, Revenue dept, S&GAD	Framework and SOPs has been developed. Felt need is develop comprehensive state DRR policy covering multiple aspects and levels (bottom-top)
1.5	Setup SDMA & DDMA's (office space, storage	46.5	49.5	52.055	Chief secretary, P&DD, Finance dept, SDMA,	SDMA Office has been established while warehousing in the pipeline

	space, tools/ equipments & relief stock piling etc				DDMAs, Board of Revenue,	with UN other donor agencies support. Stockpiling with technical equipments has been provided by ERRA DRM project and other agencies as well.
1.6	Trainings of SDMA & DDMAs staff on DRM (including international trainings)		2.3	2.3	SDMA, DDMAs, P&DD, S&GAD, home department	There are training opportunities for SDMA both national and international level with the support of different donor agencies. While DDMA has not got such opportunity which need to address.
1.7	SDMA & DDMAs to establish system of periodic stakeholders meetings e.g. public agencies, line departments, media, CSOs and other supporting agencies	0.594	0.654	0.854	SDMA, DDMAs	No considerable development in this regard need to develop coordination plan for close and effective coordination at state and district level
1.8	Develop and lunch SDMA website with regular up- dation	1.5	0.300	0.300	SDMA,	Not yet, website should be develop and launch on priority basis
1.9	Establish state disaster management fund (SDMF)	15			SDMC, SDMA, chief secretary, finance department	DM-Fund has not been established properly, while right now SDMA has around 2 million (Rs.) in account and government has committed for monsoon contingency fund around 3 to 4 million. There should be adequate funding availability with SDMA & DDMA.
2. Hazards & Vulnerability Mapping						
2.1	Produce and distribute IEC material for wider dissemination		0.45	0.3	SDMA and relevant public agencies	No development in this regard particularly in district Bagh
2.2	Support/ regulate & coordinate sectoral assessment e.g. health, public works, reconstruction		2.5	1.5	SDMA and relevant public agencies	No development in this regard particularly in district Bagh
2.3	Post risks assessments,	0.12	0.70	0.50	SDMA and relevant public	No reports, no mapping, no website

	hazards maps, reports and lesson learned on SDMA website				agencies	
3. Trainings, awareness and education						
3.1	Develop a comprehensive capacity development plan and conduct sensitization trainings at various levels	2.5	2.5	2.5	Chief secretary, SDMA, DDMA, board of revenue, P&DD, finance department	No development in this regard particularly in district Bagh or DDMA level
4. Promotion of disaster risk management planning						
4.1	Produce a comprehensive AJK DRM plan	3.5	0.45	1.2	SDMA, DDMA and UN agencies	State DRM planned was developed in 2008 (2009-11) now plan is being update. That plan was not share in with DDMA/ head of DDMA.
4.2	Develop districts DRM plans, disseminate widely and update regularly		5.5	6.8	NDMA, SDMA, DDMA, relevant public agencies	No development in this regard particularly in district Bagh, while Muzafabad and Neelum plans being developed with UNDP support.
4.3	DRM planning	0.75	0.93	1.13	NDMA, SDMA, DDMA, relevant public agencies	No development at Bagh level
5. Community and local level risk reduction						
5.1	Organizes teams of community activists & CBOs for DRR planning (risk assessment, preventive & preparedness, emergency response planning) & management at village and community levels		2.6	2.6	SDMA, DDMA, CSOs	No activities by DDMA or SDMA while numbers of NGOs have done lot of work on community based DRR and few still working.
6. Multi-hazards Early Warning System (EWS)						
6.1	Formulate policy and mechanism for dissemination of information regarding DRM (TV, Radio, Newspapers)		0.295	0.195	SDMA, DDMA, PBC, AJK/PTV and media org/ groups	No concept of EWS at district level and no mechanism placed for EW dissemination
7. Mainstreaming DRR into development						
7.1	Form inter-ministerial or		0.43	0.49	SDMC, chief secretary and	No understating of DRR mainstreaming at district

	departmental groups with agenda for DRR mainstreaming and hold regular meetings				SDMA	level
7.2	Produce and disseminate guidelines/ best practices, document for integration of DRR into development			2.5	SDMA, DDMA, P&DD	No sharing by SDMA. No development in this regard particularly in district Bagh
7.3	Frame policy recommendations for risks assessment, contingency planning, mandatory hazard monitoring			1.5	NDMA, SDMA, DDMA, relevant public agencies	No sharing and DDMA and district departments has information in this regard
8. Emergency response and post recovery system						
8.1	Setup state/ Districts EOCs, response mechanisms at state and district level as part of SDMA & DDMA	5.0	5.0	5.0	Chief secretary, NDMA, SDMA	State EOC established but no development at district level
8.2	Set SOPs for functioning of EOCs at various levels	0.59	0.275	0.275	Chief secretary, NDMA, SDMA, board of revenue, P&DD, S&GAD, relevant line departments	No sharing at district level and no consultation with DDMA in this regard
8.3	Develop and continuously update emergency response resources and maintain inventories at different levels	0.175	0.73	0.73	SDMA, DDMA	No system in place at district level, although goods and equipments have been provided by ERRA without training that how to operate equipments. Now equipments are in store without proper management and utilization.
Approximate estimated cost year wise		238.347	206.310	164.486	Cost is based on approximation	Expectation form donors nominal state contribution for SDMA staff salaries
Approximate estimated cost grand total		609.142			Actual activity portfolio	As above s

Chapter three

Potential Hazards in District Bagh AJK

Coordination and Administrative Structure of AJK Disaster Management

Disasters Information Flow Chart

Potential Hazards and Disasters Risk in Bagh AJK

District Bagh is exposed to multiple hazards (both natural and human made) with complex vulnerabilities. As district Bagh experienced 2005 devastating EQ with frequent seasonal disasters like flashfloods etc. These hazards could become more complex and worst if there would be no more comprehensive and multidiscipline DRM planning and mainstreaming at district level and beyond. Below is just overview of potential hazards existing at district level, whereas there is need for in-depth and comprehensive hazards mapping with exiting vulnerabilities and capacities. So detailed hazards, vulnerability and capacity assessment (HVCA) could help to map and monitor the hazards and transform the vulnerabilities into capacities. Following are few potential hazards with level of intensities; hence in-depth hazard mapping could identify more hazards;

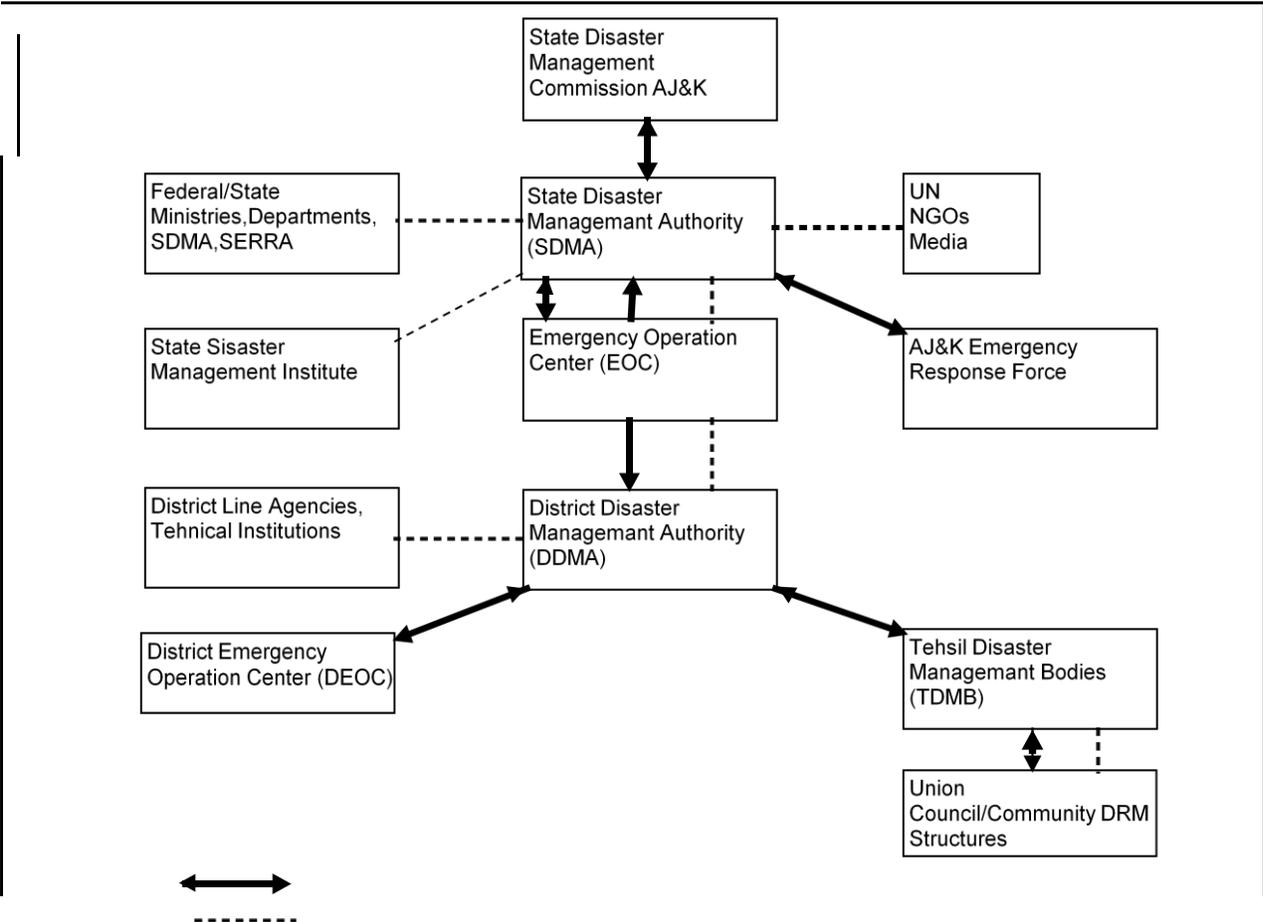
Potential Hazards in District Bagh (AJK)

District Bagh Hazards Risk Assessment Matrix			
Natural Hazards			
Geo Metrological Hazards	Earthquake		Extreme
	Landslide		Extreme
	Geo Metrological/ Avalanches		Low
	Flash floods		Moderate
Hydro Metrological Hazards	Seasonal Floods		Moderate
	Clouds bursts		Moderate
	Wind storms		Moderate
	Lighting		Low
	Drought		Moderate
Others	Epidemics		Low
Human made Hazards			
	Cross border firing		Moderate

Human made hazards	Road accidents		Moderate
	Wild fire		Moderate
	Terrorism		Low

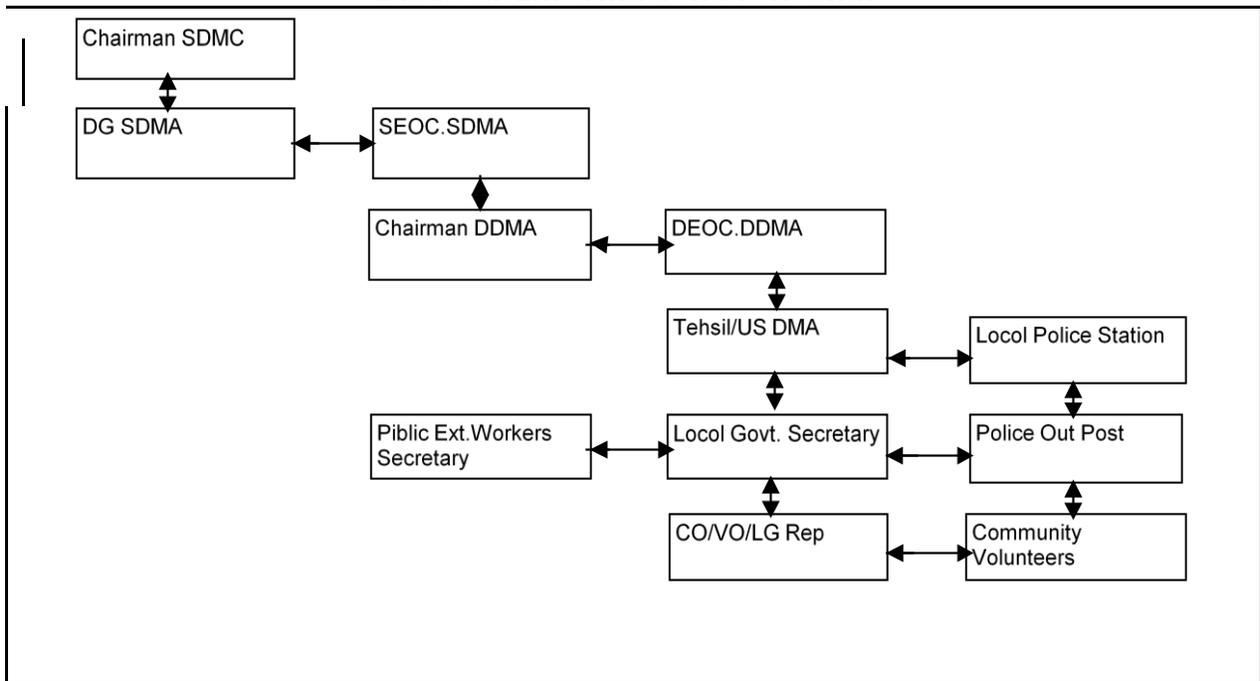
It's quite significant and essential to know and understand that what sort of mechanisms being developed for disaster risk management at state, districts and grassroots level. Following are coordination and administrative structure of disaster management and disaster information flow chart developed by SDMA.s

Coordination and Administrative Structure of Disaster Management in Azad Jammu & Kashmir



Vertical Admin/Communication Link
Horizontal Admin/Communication Link

Disaster Information Flow Chart



Chapter Four

People Centered Early Warning System

People Centered Early Warning System:

Basics of Early Warning

Natural hazards, such as storms, droughts, volcanic eruptions, or earthquakes, become disasters only if a community or population is exposed to the natural hazard and cannot cope with its effects. Millions of people worldwide owe their lives and livelihoods to effective early warning systems. People-centered early warning systems empower communities to prepare for and confront the power of natural hazards. They bring safety, security and peace of mind. Early warning systems provide resilience to natural hazards, and protect economic assets and development gains. They help society adapt to and defend against the uncertainties of climate change. Early warning systems are widely recognized as worthwhile and necessary investments. However in many cases, early warning systems do not exist, are ineffective, or break down at critical points – risking devastation, death, and destitution.

The Four Elements of Early Warning Systems

A complete and effective early warning system comprises four elements, spanning knowledge of the risks faced through to preparedness to act on early warning. Failure in any one part can mean failure of the whole system.

Risk Knowledge - Prior Knowledge of the Risks Faced by Communities

Risks arise from both the hazards and the vulnerabilities that are present. What are the patterns and trends in these factors?

Risk assessment and mapping will help to prioritize early warning system needs and to guide preparations for response and disaster prevention activities. Risk assessment could be based on historic experience and human, social, economic, and environmental vulnerabilities.

Warning Service – Technical Monitoring and Warning Service for These Risks

There is a need for a sound scientific basis for predicting the risks faced. Therefore constant monitoring of possible disaster precursors is necessary to generate accurate warnings in timely fashion. Multi-hazard approaches must involve various monitoring agencies.

Dissemination of Understandable Warnings to Those at Risk

The warnings need to get to those at risk. Consequently, people at risk need to understand these warnings, which have to contain useful information that enables proper responses.

Communication channels from regional to national to community levels have to be pre-identified and it is necessary to have one authoritative voice. Many countries need to increase their capacity in disaster risk management and link various disaster management organizations from national to local levels.

Response Capability - Knowledge and Preparedness to Act

It is essential that communities understand their risks; they have to respect the warning service and should know how to react.

Building up a prepared community requires participation of formal and informal education sectors, addressing broader concept of risk and vulnerability.

People Centered Early Warning Systems

Effective early warning systems require strong technical foundations and good knowledge of the risks. But they also must be strongly “people centered” – with clear messages, dissemination systems that reach those at risk, and practiced and knowledgeable responses, by risk managers and the public. Public awareness and education are critical; in addition, many sectors must be involved.

A core message of the session “People Centered Early Warning Systems” held at the World Conference on Disaster Reduction, in January 2005, in Kobe Japan was that effective early warning systems must be embedded in an understandable manner and relevant to the communities which they serve. Therefore, systems must be developed which ensure that they are functioning when needed and that warnings are timely, understood, and viewed as legitimate and ultimately acted upon by the diverse array of individuals at risk in any emergency. The following core components of people centered early warning systems were defined:

Incorporation of a Combination of ‘Bottom-up’ and ‘Top-down’ Elements

Both approaches are crucial for an effective system. On the one hand, a community approach is essential to identify needs, patterns of vulnerability and to develop the legitimacy required to ensure that warnings are acted upon. At the other end, information on regional weather conditions or other factors relating to a specific risk need to flow down from regional and global monitoring systems. Therefore, warning systems are hardly effective if they are not supported at higher levels including scientific and analytical capacity and policy frameworks.

Involvement of Local Communities in the Early Warning Process

Some good practices from Central America, Haiti, Africa and other regions demonstrated that data collection by local people using readily available technologies can provide information which is of critical use for the early warning system. Simple technologies, such as rainfall and river gauges combined with equally simple rules of thumb can often enable communities to monitor threats and provide effective warnings.

Elements of People Centered Early Warning System (EWS)

<i>Risk Knowledge</i>	<i>Warning Service</i>
<p>Prior knowledge of the risks faced by communities.</p> <p>Are the hazards and the Vulnerabilities well known?</p> <p>What are the patterns and trends in these factors?</p> <p>Are maps and data widely available?</p>	<p>Technical monitoring and warning service.</p> <p>Are the right parameters being monitored?</p> <p>Is there a sound scientific basis for making forecasts?</p> <p>Can accurate and timely warnings be generated?</p>
<i>Dissemination</i>	<i>Response Capability</i>
<p>Dissemination of understandable warning to those at risk.</p> <p>Do the warnings reach those at risk?</p> <p>Do people understand the warnings?</p> <p>Do they contain relevant and useful information?</p>	<p>Knowledge and preparedness to act by those threatened.</p> <p>Do communities understand their risks?</p> <p>Do they respect the warning service?</p> <p>Do they know how to react?</p> <p>Are plans up to date and practiced?</p>

Chapter Six

Study Major Findings & Recommendations

Study Major Findings & Recommendations:

Following are key study findings which need special attention to strengthen and mainstream DRR at various levels. Whereas finding could be used for advocacy purposes to achieve the intended objectives;

Key Study Findings:

22. Lack of political commitment to strengthen the DRR initiatives/ institution at district and grassroots level with adequate financing. No contingency funding available both at DDMA and departmental level to be prepared and response any emergency timely and effectively.
23. No public financing for DRR at district level even after the establishment of the SDMA (in 2007) and notification of DDMA
24. Centralization of DRR initiatives/ institution and yet no mechanisms in place to decentralized DRR and preparedness at grassroots (District, Tehsils, UCs & community) level
25. No comprehensive District DRM plan, as per State DRM plan this has to be develop by 2011. Effective coordination mechanism also lacking at district level to discuss the DRR mainstreaming and preparedness issues.
26. None of departmental/ sectoral specific DRM plan to be prepared and risk reduction in their respective areas of work
27. No initiative has been taken to establish the District Emergency Operation Centre (DEOC) to coordinate and timely response any emergency/ disaster
28. Emergency stockpiling has been provided by ERRAs both at district and UCs levels. Available stockpile is not being managed effectively even respective departments are not fully aware what they have and how they will use that. Technical human resource is major concern at DDMA level and no technical training has been provided to DDMA by respective agency for use of sophisticated equipments in case of disasters.

29. None of Early Warning System (EWS) is placed at district and grassroots levels. One of the international NGO installed EQ EWS in two UCs of district Bagh which are out of order and DDMA is not fully informed and aware about that.
30. Search and Rescue (SAR) remaining a weak area particularly Urban Search and Rescue (USAR)
31. Firefighting capacity both buildings and forest is alarming there are no sophisticated equipments with trained human resource at district to manage fire
32. Climate change and global warming is one of the leading and complex hazard, hence no realization in this regard to mitigate and adapt the climate change.
33. Lack of DRR and CCA mainstreaming both structural and non structural development initiatives.
34. Development driven hazards and lack of quality construction remain a potential risk for Bagh town. Effective mechanism is not in place to ensure quality construction with enforcement of buildings code.
35. As per State DRM plan district DRM plan would have to be developed without emphasis on urban/town specific planning. Urban DRM planning and management is different from rural.
36. No check on rural housing construction quality and no mechanism existing to enforce and monitor building codes implementation.
37. Yet technical unit has not been established at DDMA level in the supervision of Deputy Commissioner (DC) to manage the DDMA affairs effectively.
38. District departments lacking capacity technical, financial and human to mainstream DRR and to be prepared for disaster management. After 2005 EQ parallel departments have been established rather than strengthening the existing departments.
39. None of data base of most vulnerable people like, women headed houses, widows, people with disabilities (PWDs), orphans, HIV/AIDs and other chronic diseases, senior citizen etc to reach them in case of any emergency and support them in pre disaster phase.
40. Information access and sharing is one of the major aspects of DRR, whereas SDMA/DDMA website has not been developed yet.
41. Strengthening of media (press club, local FM radio etc) for awareness rising, information sharing and early warning is important. Media person's capacity building regarding DRR is equally important, which is lacking.
42. Lack of gender, disability and other cross cutting areas mainstreaming in DRR is an area of concern.

Major Recommendations:

1. **Political Commitment:** Political commitment is essential to establish and strengthen the DRM initiatives/ institutions at various (district, Tehsil, UCs and community) level. It should not be treated causally, this is one of the lives saving, Livelihood, infrastructure and environment protection area. Need to prioritize while adequate financing would be required to make it real DRM and response institution/ department. Even in 2012 budget there is no financial allocation for SDMA and DDMA, in these circumstances how this institution would be able to strengthen and deliver effectively.
2. **Establishment and Strengthening of Local Government System for DRM:** Effective grassroots DRM is closely associated with local government system, so there is need to make local governance practical for disaster risk management and timely and effective emergency/ disaster response. Real and active participation of local people particularly marginalized and vulnerable segment of society are integral part of DRM, which could be ensure through effective and consistent local governance system.
3. **Disaster Risk Management (DRM) Planning:** Preparation of comprehensive district DRM plan in close coordination and consultation with stakeholders (all line departments, CSOs, media, Technical agencies etc). DDMA would be required technical support from SDMA and other technical agencies for planning and be update on regular basis. Coordination is one of the important features of DRM, therefore there is need to develop coordination mechanism and ensure the regular meetings with clear role and responsibility of each member department/ agency.
4. **Establishment and Strengthening of District Emergency Operation Centre:** AS per state DRM plan, District Emergency Operation Centre (DEOC) would be part of DDMA. DEOC would have to work round the clock with trained staff, adequate information and communication mechanisms and equipments for information gathering, dissemination and response. So there is urgent need to develop the district DRM plan with fully equipped DEOC.
- **Departmental/ Sectoral DRM Planning:** Apart from district DRM plan there is need to develop departmental preparedness/ contingency plan which will complement DDRM plan. Departmental plans would help the respective department to be prepared and respond any disaster timely and effectively to reduce the impact. Contingency fund, staff trainings and stockpiling would be the significant components of plan. (for departmental specific information, kindly go through State DRM plan and National Disaster Management Framework <http://undp.org.pk/building-knowledge.html>, <http://ndma.gov.pk/>).
5. **Focused on Community/ Schools & Health Based DRR:** There is felt need to focus on Community Based Disaster Risk Reduction (CBDRR), school based DRR (school

safety) and health based DRR at various levels to be prepared and reduce the vulnerabilities of communities, education and health facilitates both structural and non structural.

6. **Emergency Stockpiling:** Emergency stockpiling both at DDMA and department level is key for effective disaster management. Each department required to list down essential goods and services with admin and logistic support. Stockpiling management like storage at appropriate place, inventory management, trained human resource need to be considered. Contingency fund would contribute to mobilize goods to affected areas and reached out the affected population in timely manners.
7. **Early Warning System (EWS):** EWS and timely dissemination of information to vulnerable population is integral part of preparedness and DRM. There is need to establish EWS at district level with the support of technical agencies like met department, geological survey of Pakistan etc. Early warning dissemination mechanisms need to develop in consultation with media (print, FM radio. TV etc). Telecommunication technology like cell phone can play effective role in warning dissemination. Media role is also crucial for warning dissemination, so appropriate training would be required to media persons/ journalists in this regard.
8. **Search and Rescue (SAR):** SAR and first aid are another area which is crucial during any disaster situation. Technically this is role and responsibility of civil defense department (CDD) which is not looking operational and effective at district level. CDD and district health depart also need to closely coordinate regarding first aid and management of first aid volunteers. Urban Search & Rescue (USAR) is one of the critical and complex areas, technical human resource and sophisticated equipment required for this purpose. For rural areas search and rescue need to trained the volunteers and stockpile the equipments at U/village level. Rescue 1122 could be a potential addition in this regard. As ERRA under DRM project established stockpile centers at district and UCs level through district administration and local government department, which is not operational at all and material is dumped anywhere and even respective departments are not well informed that what they have. At district level sophisticated equipment provided by ERRA but without training, therefore nobody to handle some technical equipment. So it is being recommended that there is need to organize by SDMA/ ERRA or any other agency that how available equipments could be operating in case of any disaster/ emergency. Regular drills and simulation could be more effective in this regard.
9. **DDMA & Civil Defense Dept Role and Mandate Clarity:** DDMA and civil defense department (CDD) mandates and role and responsibilities should be clarified

keeping in view the pre, during and post disaster phases. So both departments can deliver accordingly with close coordination.

10. **Firefighting:** Fire fighting both in buildings and forest are always critical and one of the potential hazards. Fire is not threat only for lives, livelihood, assets and infrastructure but equally threat for environment. Forest fire is common during summer but there is no plan or trained human resource with equipment to manage the fire. So forest department need to devise strategy and plan to mitigate the impact. Without active community participation and scientific equipments for forest fire management this could not be achieve. As Rescue 1122 centers being established in all districts of AJK so that would be good addition to manage/ fight fire in town areas.
11. **Climate Change Adaptation (CCA):** Climate change/ global warming is one of the leading and potential hazard (number of disasters being driven by climate change), while there is little realization in this regard at district level. There is no climate change mitigation and adaption measure being taken at all. Which could more severe and dangerous in near future. As now water scarcity is a problem for rural and urban population. Even in some areas drinking water is not available because of spring's dryness. Poor families/ farmers are forced to sale livestock due to water unavailability. Agriculture is also being affecting due to weather variation and timing and amount of precipitation. Now there is no set seasonal pattern of raining for agriculture purposes which was establish almost one decade back. So this climate changes threatening our water and food security. Even current situation could transform in drought in near future if effective steps being not taken for climate change mitigation and adaptation. So agriculture and livestock research institutes need to come with new varieties which could withstand new climatic scenario. Reforestation, and protect the forest from fires is one of the potential area for climate change mitigation. Water management is another critical area which seeking urgent attention of state/ district government and other technical agencies.
12. **Compliance of Safe Construction Practices:** Bagh town experienced immense human and infrastructure losses because of the 2005 earthquake. Major reason was poor construction. Now building codes have been developed which need to implement with full force and commitment. During study it has been assessed that still different residential and commercial buildings being constructed without following standards. Even strong hills/ rocks being excavated for commercial construction which is one the development driven hazard. So this sort of development could be dangerous and could fuel to other hazards like land sliding etc. There is need to strictly follow the building codes, quality construction and should be ban to excavate the hills/ steep slopes to mitigate the hazardous impact. Construction being made near Nallaha

Mahal (a stream but quite sharp and dangerous during monsoon), which is one of the vulnerable and disaster prone location. Question is who is approving such sort of construction? Even number of colleges located in the same area. As per media reports still 174 partially damaged (due to 2005 EQ) buildings existing in Bagh town had not been demolished and being use with small maintenance and whitewash. Which are posing another threat for people.

13. **Legislation and Mechanism Development for Rural Housing Safe Construction:** No mechanism to enforce the building codes in rural housing construction. After earthquake only donor funded houses led by Earthquake Reconstruction and Rehabilitation Authority (ERRA/SERRA) followed the codes. After completion of project now everybody is constructing houses with his own wish and will. There is need to advocate for legislation in this regard and ensure the enforcement of building codes in rural houses construction. Local government system could also contribute a lot in this regard.
14. **DDMA Technical Unit Establishment:** As Deputy Commissioner (DC) is administrative head of the district and quite busy and overburdened position. DDMA being a newly emerged department required full attention to coordinate, plan, establish and strengthen. If this additional role is being allocated to DC is looking practically not manageable. Being a head of the district he/she could oversee the DDMA but cannot physically involve in each and every activity. It is being suggested that there should be an independent technical unit within DC office (or separately) to manage the DDMA affairs with reporting line to DC.
15. **Mainstreaming and Integration of DRR:** DRR itself is not a sector it's an integrated approach, so there is need to mainstream DRR at all level like, policy, planning, budgeting and implementation. It should be mainstreamed in all departmental plans and budgets particularly finance and planning departments must need to see every intervention with DRR lens. There is need to develop a DRR checklist which would be part of each PC1 to ensure the integration before the approval of any plan/ project. SDMA/DDMA role would be facilitation in this regard. Capacity building plan both at DDMA departmental level could capacitate the staff in their respective areas, that how they can integrate DRR in overall activities.
16. **Data Management of Most Vulnerable Families:** Role of social welfare & women development department is vital for social protection at all three stages of any disaster (pre, during and post). Particularly women, children, people with disabilities (PWDs), senior citizens, HIV/AIDs (other chronic diseases) and other marginalized segment of society are often vulnerable in disaster situation. So they required special attention in emergency situation. If detailed data of vulnerable people would be available with SW&WD department in pre disaster phase then needs of these

most vulnerable people could be address in disastrous situation. This data need to update on regular basis, this should be part departmental preparedness plan.

17. **Adequate Funding Allocation for SDMA/DDMA:** As state disaster management fund has been established with limited contingency fund. Same sort of contingency funds should be available both at DDMA and departmental (all district line departments) level for preparedness and initial emergency response. There should be fast track funds transfer mechanism from SDMA to DDMA in case of any emergency (existing funds approval and transfer mechanism is time taking and not emergency friendly). There should be a state policy to allocate one or two percent of GDP for DRR and preparedness purposes at annual basis. This allocations could save huge amount in case of future disaster due to preparedness, risk reduction, mitigation and prevention measures.
18. **Easy Information Access & Sharing:** Information sharing and easy access played significant role in disaster management. In this technological era telecommunication and electronic (email/web) communication playing leading role in information sharing. Information sharing is also a tool to be transparent and accountable to people for whom they are working. But still SDMA/DDMA websites are not developed and functional, it should be launched on priority basis.
19. **Strengthening of Information Dissemination Systems:** Media role (print and electronic) is quite significant in awareness raising, educate the people, disseminate the early warning, know the underlying cause of disaster and other aspects covering to all three phases of disasters. Media persons/ journalist training on DRR and EWS, CCA and other related issues could equip them to play their role effectively. Strengthening of press club and other related institutions (district & Tehsil) could enhance their role and effectiveness.
20. **DRR Policy Formulation:** None of DRR policy at state level is main hurdle in mainstreaming and integration. Need to develop comprehensive DRR policy with effective institutional support and mechanisms for implementation.
21. **Risk Transfer:** As number of hazards existing at district level with multiple vulnerabilities. Risk transfer approaches like insurance and soft loans (for infrastructure and livelihood like business, agriculture, and livestock) could strengthen the coping capacities of vulnerable families/ communities.
22. **DRR Forum:** Civil society forums always played vital role in advocating and strengthening the institutions in their respective areas. District DRR forum could influence the state and other stakeholders in this regard. Simultaneously could contribute a lot in DRR mainstreaming, research, capacity building, coordination, community based DRR and other number of areas.

23. **Urban/Town DRM Planning:** As urban DRR and preparedness dimension is entirely different from rural. So there is felt need to develop comprehensive Bagh town/urban DRM plan led by Bagh Development Authority (BDA), Municipal committee Bagh with technical support of DDMA and other technical agency. As per SDMA state DRM plan District DRM plan would have developed. There is no focus or emphasis on urban DRM planning which quite important and need to focus.
24. **Trained Emergency Response Team & Volunteers Database:** Trained human resource is key to effectively response any disaster like search rescue, evacuation, first aid, coordination, relief and camp management. So fully trained and equipped human resource (team) need to establish and strength at district level. As hundreds of volunteers in different disciplines have been trained by different NGOs after earthquake so volunteers data base management is equally important at district level. Civil defense department in consultation and coordination with DDMA and NGOs could do it effectively.
25. **DRM Research Institute:** As AJ&K (Himalayan region) is one of the hazards prone and highly vulnerable areas. As per different technical reports there is possibility of another strong seismic activity in near future. So a well established and equipped research institute with highly qualified human resource could produce timely and quality information regarding nature of hazards and how those could be prevent and mitigate. AJK University in consultation with geology department which could link with international research institute and technical agencies at national level.
26. **Public Private Partnership:** Public private partnership is the key for successful institutionalization of any development and DRR mainstreaming program. For an effective integration of DRR a proper government-NGOs-community interface needs to in place to ensure that government lead from the front with policies and administrative support, with community mobilization, while building community structures for sustainability of the process and program through participatory planning and monitoring.
27. **Gender Mainstreaming in DRR:** Gender mainstreaming is one of the neglected and overlooked areas by SDMA during the development AJK DRM plan. As women are always most vulnerable in the face of any disaster. So without gender sensitive planning at state, district and grassroots level would not be an effective DRM planning at all. Therefore there is tremendous need to take gender aspect as cross cutting at any sort of DRR related initiatives and integration. Women active and effective participation need to ensure at all stages like decision making, planning and implementation at all level.
28. **Disability Mainstreaming in DRR:** Disability mainstreaming is another neglected area which needs to give special priority at all stages of DRM planning and implementation. As a consequence of 2005 EQ there are number of People with

Disabilities (PWDs) men, women and children at district Bagh level. It's unfortunate that yet PWDs data is not available at district government level to address the issues of these most vulnerable people which are in miserable conditions. As per Forum of the Rehabilitation for Disables (FORD) a rights and advocacy based organization striving for the rights of PWDs particularly most vulnerable spinal cord injured (disables). As per FORD data there are around 200 spinal cord injured (disabled) at district level with around 120 caused by 2005 EQ. FORD stressed that PWDs are suffering a lot no attention is given by the Government. There should be a special health, livelihood and wheel chairs access for PWDs. **There should be PWDs 5% job quota implementation with representative in legislative assembly as PWDs are considerable numbers in AJK.**

29. **Conflict Sensitivity:** Conflict sensitivity mostly overlooked at the time of planning and implementation of DRM activities. Need to give equal attention to human induced hazards with conflict sensitive approach. Lack of conflict sensitive and do no harm approach some time create exacerbate the existing critical situation during both natural and human induced disasters.
30. **Sanitary Workers:** Sanitary workers are one of the most vulnerable, marginalized, discriminated and only landless community in District Bagh. They are always exposed to hazards with less coping capacities. A special package needs to introduce to the settlement of the community. As in the outcome of STF/AAPK advocacy campaign few families have received shelters with land allotment but that land is vulnerable due to one of the stream in town. There are required proper mitigation measures to protect the community from any hazardous event.
31. **Red Zone Area:** **As per different technical reports produced by after 2005 EQ, there are number of most vulnerable locations (declared as red zone in terms of seismic activity) in district Bagh.** Like Suddan Gali and Bir Pani is one of the prominent areas in district. Firstly there should be resettlement of these families if not practical due to community resistance and reluctance; there is high need to compliance safe construction practices.
32. **Establishment of Parallel Department:** As EQ brought number of opportunities to strengthen the state (district) institutions/ departments with huge technical and financial support by international humanitarian community. While there have been established parallel departments like District Reconstruction Unit (DRU), Bagh city Development Program (BCDP) etc. So this opportunity was not availed and implemented effectively and still regular departments like Bagh Development authority (BDA) local government department, public works and others departments are lacking technical capacities to including human resources, logistics and financial. One of the golden opportunities has lost while still need to strengthen the district

departments instead of running parallel departments. Which are creating confusion at various level and district department are looking helpless which ultimately have to take over all the work done by newly developed departments.

33. **Integration of Cross Cutting Themes:** Cross cutting themes focused on particular areas of concern in disaster risk management/ response and address individual, group or gender vulnerabilities issues. Children, gender, older people, people with disabilities (PWDs), DRR, environment, HIV and AIDS and psychosocial support need to consider at all three stage of disaster cycle (pre, during and post). For detail <http://www.sphereproject.org/>.
34. **Integration of Protection Principles:** Humanitarian charter and protection principles are guiding source which need to integrate in all three phases of disasters. Protection principles are (1) Avoid exposing people to further harm as a result of your actions (2) Ensure people's access to impartial assistance (3) Protect people from physical and psychological harm due to violence or coercion (4) Assist with rights claims, access to remedies and recovery from abuses. (for detail <http://www.sphereproject.org/>).
35. **HFA Compliance:** Hyogo Framework for Action (HFA) is an international framework for DRR and mainstreaming with five priorities (for detail please visit <http://www.unisdr.org/we/inform/publications/18197>). HFA compliance is worthy and essential at state, district and grassroots level.

Chapter Seven

Annexure

References and Bibliography

Annexure

Public Financing on DRR and its Effectiveness in District Bagh AJK

Questionnaire for Study

<i>Description</i>	<i>Name</i>	<i>Sign</i>
Interviewer		
Interviewee		
Designation		
Department		
Date		

Civil Defense Department (CDD):

1. What is the mandate of civil defense department (CDD) after establishment of DDMA?
2. What is coordination mechanism between CDD and DDMA?
3. What contingency/ preparedness plan you have to timely and effectively response and emergency situation?
4. What is CDD annual budget for emergency preparedness and response? Is it sufficient?
5. How human trained human resource you have for emergency preparedness and response? Do you this (available) human recourse is sufficient to effectively manage and response any emergency situation? If not what sort and how much human resource would be required?
6. What sort of equipment you have to respond any emergency? Do you think available equipments or sufficient, if not what are the requirements? Have you planned these resources/ equipments during last (3-4 years) annual plan and budgets?

7. When you conducted last mock drill to assess your department capability and effectiveness? If conducted (when and where, who participated), are you satisfied with the preparedness of your department?
8. Any suggestion or recommendations?

Bagh Development Authority (BDA):

9. Can you please elaborate what are the potential hazards posing danger to Bagh town population?
10. If these (above mentioned) hazards are existing then what is BDA plan to mitigate or prevent those?
11. Is there any Urban (Bagh town) DRM plan owned and managed by BDA or DDMA?
12. Do you have building codes for hazard resistant construction in town area? If yes what is mechanism to implement and enforce those?
13. Who approve the building design and specification for town area? Do you think minimum standards are being followed during construction in town? If anybody don't follow the code/standard (or initiate construction without approval) then what is BDA mechanism to stop such constructions?
14. After 2005 devastating earthquake (when Bagh town experienced immense human and financial losses), what sort of major measure being undertaken by BDA minimize the vulnerabilities of town (infrastructure) and peoples?
15. Sanitary worker is one of the most vulnerable segments of Bagh town (which is contributing a lot in town development). Even after six years of EQ this community is land and shelter less, what are the major constraints in this regard?
16. Any suggestion or recommendations?

Social Welfare & Women Development (SW&WD):

17. What is role or mandate of SW&WD in DRM at district level?
18. As social protection (women, children, PWDs) is one of the mandate of SW&WD. What's preparedness / DRM plan you have to effectively support and protect vulnerable people in case of future disaster?
19. Do you (SW&WD) have any preparedness or DRM plan to reduce the vulnerabilities and increase the capacities of most vulnerable people in district Bagh?
20. Do you have budget for above mentioned activities? If yes, is that sufficient? If not then what department is doing to arrange and manage resources?
21. Do you have data of vulnerable people like (PWDs, widows, women headed families, orphans etc), to reach them in case of any emergency?
22. What is coordination mechanism between SW&WD, DDMA and other related department? What is the frequency meeting and who is organizing?
23. Any suggestion or recommendations?

Education Department:

24. As education department is one of the leading institutions to inform and educate the student and general masses regarding potential hazards and risks reduction. What is education department is contributing in this regard?
25. Is DRR is part of curriculum now, if not what education department is doing in this regard to mainstream DRR in overall educational practices both structural and non structural?
26. Do you have financial allocation in department annual budget to train the staff (teachers) regarding DRR to teach the students? If yes how much? If not what are the reasons? Is there any AJK/Pak Govt funding for this purpose (except donor funding)?
27. What is the schools reconstruction status at district level (in aftermath of 2005 EQ)? Is there any Govt funding for school reconstruction, if yes how hazards resistant construction being ensured to protect the lives of students and staff, in case of future disaster?
28. Do you have any departmental DRM (school safety plan)? If yes what are the major component of that?
29. What is coordination mechanism between education department and DDMA?
30. Any suggestion or recommendations?

Health Department:

31. Is there any health contingency/ preparedness plan to effectively and timely response any future disaster? If yes what are the major components of that?
32. How much trained human resource you have (breakup)? Any emergency stockpile? Any contingency budget?
33. Any suggestion or recommendations?

Livestock and Agriculture Department:

34. Any departmental preparedness/ contingency plan for emergency management and protect the major source of livelihood of people?
35. What is the financial allocation (per annum) after 2005 EQ for preparedness and DRR purposes? If yes, is this allocation is sufficient and department would be able to effectively respond the emergency keeping in view the situation of 2005 disaster?
36. How much trained human resource you have for emergency purposes? Any capacity building plan for them to further enrich them?
37. Any stockpile at district or Tehsil level?
38. Coordination with DDMA for DRM and preparedness purposes? Frequency and effectiveness of meeting?
39. Any suggestion or recommendations?

Media and CSOs Representatives:

40. What are your observations how we realized and adopt the DRR and preparedness in the aftermath of 2005 EQ? Now what would be the approach proactive or reactive in case of any future emergency?
41. Do you think DDMA and other stakeholders are adequately prepared (for response) and doing enough for risk reduction to reduce the impact of future disasters?
42. How much BDA is enabled to make the town safe and resilient in case of any future disasters? Building codes and standards are being strictly followed for safe construction?
43. What is the role of civil defense department at district level for risk reduction and preparedness purpose? Have you ever seen any mock drill? Any training for other stakeholders or CSOs?
44. Is Government allocating adequate financial resources for risk reduction at district level? Is DRR is the priority of Govt, district departments, DDMA and other stakeholders? If not how media is raising flagging these issues?
45. What is the role of media in raising awareness, educating people and influencing concerned institutions (government) to give adequate attention to DRR?
46. Any training on DRR for media person for adequate reporting and monitor the ongoing activities? If yes, how much that helped the media person in understating of DRR?
47. Any suggestion or recommendations?

Local Govt and Rural Development Department:

48. Any departmental DRR plan? How you are integrating DRR in overall infrastructure development activities?
49. Is department staff trained in DRR approaches to ensure effective integration in all a activities? Any capacity building plan?
50. How building codes being followed during the construction? Is staff appropriately trained for this purpose?
51. Any additional funding/ allocation to ensure the hazards resistant construction?
52. Coordination mechanism with DDMA? Frequency of meetings?
53. Any suggestions or recommendations?

Forest Department:

54. Any departmental preparedness/ DRR plan at district level? If yes what are the major components of that?
55. What are annual financial allocations for emergency preparedness and contingency planning purposes?
56. Any hazards risk assessment of vulnerable locations? How department is considering environmental and climatic issues as forest is one of the integral part of green environment and climate change mitigation?
57. Any plan of reforestation, slope stabilization at vulnerable locations? If yes please share the locations?
58. Any plan/ mechanism to monitor and manage and forest fires? Is trained human resource available for this? What is role of local communities in this regard?

59. Any suggestion, recommendations, issues, challenges?

District Disaster Management Authority (DDMA):

60. Is there any district DRM plan? If yes what is the mechanism of review and update that?
61. Any early warning system (EWS) establishment at district level? How coordination being made with met department and other technical agencies for EW?
62. How much technical staff (DRR experts) is part of DDMA for technical assistance? Is this available human resource is sufficient or there is need additional staff? If yes, what sort of?
63. Any emergency stockpile at district, Teshils and UCs level? If yes what sort of and who is organizing and managing that? In case of technical equipment (for search or rescue), DDMA has the technical human resource to operate that?
64. DDMA coordination mechanism at district level and with other stakeholders? Frequency of meeting and who is organizing? How DDMA and Civil Defense collaborating and completing each other?
65. What is annual budget DDMA 2008 to 2012? Is this allocation sufficient for preparedness at district level?
66. Status of decentralization of preparedness/ DRR initiatives at Teshils, UCs and village level? If yes what or financial allocations for that?
67. Any capacity building plan? If yes what sort and do you have resource for that? How much trainings already have been conducted by DDMA/SDMA?
68. Any suggestion, recommendations, challenges, issues?

State Disaster Management Authority (SDMA):

69. What is the status of SDMA is it fully established and equipped now as per DRM plan (2008-11)?
70. Status of Emergency Operation Centre (EOC)? Is that functional with adequate standards and requirement?
71. Status of establishment of DDMA plans with EOC? How many plans have been developed, what is the status of District Bagh?
72. Policies, procedures and SOPs development status both at state and district level? Are now SDMA and DDMA are clear about their mandate, roles and responsibilities? If not what is the status and how much time it will take?
73. How much (numbers and titles) training on DRM has been conducted for SDMA, DDMA and other stakeholders? Are you satisfied with trainings quality and trained staff would be able to deliver effectively in case of any disaster? What sort further trainings would be required for staff?
74. What is the coordination mechanism at state and districts level? How much meetings, workshops have been conducted during last five years? Are meeting minutes available at website?
75. Is SDMA website functional and being update on regular basis?
76. Has state disaster management fund established? How much contingency funds SDMA available now in fund? Is this public financing or donor?

77. Any hazard and vulnerability mapping at state and district level? Any assessment/ mapping of district Bagh? If yes what are the potential hazard what the strategies to mitigate those are?
78. Is SDMA publishing annual report? If yes can you please share in soft or hard form? Any IEC material developed by SDMA?
79. How SDMA is ensuring to mainstream the DRR at planning and implementation stages of different plans and activities at state, district and community level (multi sectors)?
80. What sort of activities/ initiatives has been undertaken for community and local level risk reduction?
81. Stock piling status at District and state level? If established, what was the source of financing public or institutional donors? What is management mechanism of available and stockpiling? Is trained staff available for this purpose?
82. Has multi hazard early warning system (EWS) established now? If yes how much is effective that and how many simulations/ exercises have been conducted for preparedness purposes? Is SDMA satisfied with effectiveness of EWS? What is the mechanism in place to disseminate the EW at grassroots level?
83. What are the major issues and challenges being faced by SDMA?
84. Any suggestion or recommendations?

Reference

- AJK State DRM Plan <http://undp.org.pk/building-knowledge.html>
- AJK Planning and development department <http://www.pndajk.gov.pk/glance.asp>
- ERRA DRM Project Report <http://www.erra.pk/>
- Hyogo Framework for Action (HFA) <http://www.unisdr.org/we/inform/publications/18197>
- NDMA National Disaster Management Framework (NDMF) <http://ndma.gov.pk/>
- NDMA Disaster Management Ordinance <http://ndma.gov.pk/>
- People Centered EWS <http://www.unisdr.org/we/inform/publications/18197>
- SPHERE Standards <http://www.sphereproject.org/>

