

Natural Disaster Mitigation Policy in Afghanistan

Introduction:

Afghanistan is considered as a country prone to a number of natural disasters Earthquakes, flooding, drought, landslides, and avalanches. Earthquakes are relatively frequent, being more frequent in the north and northeast, and often trigger landslides. Floods are common in the spring when snow begins to melt and rainfall is heavy.

Afghanistan is located in a zone of high-seismic activity. Given the rugged and mountainous nature of the country and the location of villages, towns and cities, there is always a high propensity for widespread death and destruction whenever an earthquake, landslide, mudslide, avalanche, or flooding occurs, due to 2002 estimation that since the early 1980s, natural disasters in Afghanistan have killed an estimated 19,000 people and displaced 7.5 million people.

Since 2000, there have been about 9 major earthquakes resulting to about 1,223 deaths.

According to the International Disaster Database about 2,000 people has been killed, and a total of 79,800 made homeless due to the yearly flooding since 1954. Landslides and avalanches have also made their mark on the lives and properties of Afghans; since 1954, a total of 799 people have been killed, 64 injured, 110 made homeless, and 400 affected.

Decades of War and civil conflict, as well as environmental degradation, have all contributed to increasing vulnerability of the Afghan people to natural disasters. Several assessments by the humanitarian agencies have revealed significant shortcomings in the areas of water, sanitation, health, security and natural resource management. Furthermore, the high level of poverty, lack of livelihood and income generating opportunities, chronic health problems, and poor state of the infrastructure all add to the burden of natural disasters on the people of Afghanistan.

Though it is not possible to completely avoid natural disasters, but the sufferings can be minimized by creating proper awareness of the likely disasters and its impact by developing a suitable warning

system, disaster preparedness and management of disasters through application of information technology tools.

Natural Disasters cut across many boundaries, including organizational, political, geographic, professional, topical, and sociological, this means that disaster information needs to be disseminated to all stakeholders at Shoal, District, Provincial and national levels, both public and private. Furthermore, there is a need to integrate information across many disciplines, organizations, and geographical regions.

The quakes began in the Hindu Kush mountains on Monday at about 1930 local time (1500 GMT), rocking the poor and mainly rural region that had already been devastated by years of war and drought.

About 20,000 people have been left homeless in freezing conditions.



Fig (1) Shows damage due to earthquake on Nahrin March 2002.



Fig (2) an elderly Afghan man squats near the rubble of several houses demolished earthquake in Nahrin.

Top 10 Nature Disasters in Afghanistan

Sorted by numbers of people killed, total affected and economic damage costs

Disaster	Date	Killed
Earthquake	30-May-1998	4700
Epidemic	10-Apr-2002	2500
Earthquake	4-Feb-1998	2323
Earthquake	10-Jun-1954	2000
Earthquake	25-Mar-2002	1000
Flood	28-May-1991	728
Epidemic	Jan-2000	507
Earthquake	16-Dec-1982	500
Flood	31-Sep-1992	450
Flood	6-Feb-1991	415

Table (1) Natural disasters sorted by killing of life

Disaster	Date	Total Affected
Drought	May-2001	3,800,000
Drought	Apr-2000	2,580,000
Drought	1973	600,000
Flood	Jul-1978	271,684
Flood	Jan-1972	250,000
Drought	1972	235,000
Epidemic	Jan-2002	200,000
Flood	Jun-1988	161,455
Drought	1971	120,000
Earthquake	30-May-1998	116,936

Table (2) Natural disasters sorted due to affected people

Disaster	Date	Damages in USD
Earthquake	30-May-1998	1,650,000
Flood	Jun-1988	260,000
Flood	6-Feb-1991	60,000
Flood	Jul-1978	52,000
Drought	1971	30,000
Earthquake	10-Jun-1956	25,000
Earthquake	2-Feb-1984	5,000
Flood	31-Sep-1992	4,000

Earthquake	16-Dec-1983	3,000
Earthquake	16-Dec-1982	1,000

Table (3) Natural disasters sorted by economic damages

Summarized Table of Natural Disaster in Afghanistan From 1954 to 2005

	No of event	Killed	Injured	Homeless	Affected	Total Affected
Drought	7	0	0	0	7,383,000	7,383,000
ave. per event		0	0	0	1,054,714	1,054,714
Earthquake	26	11,302	10,554	95,855	514,125	620,534
ave. per event		435	406	3,687	19,774	23,867
Epidemic	19	3,828	0	0	253,217	253,217
ave. per event		202	0	0	13,327	13,327
Extreme Temperature	4	551	0	0	200,200	200,200
ave. per event		138	0	0	50,050	50,050
Flood	43	3,368	483	37,875	966,199	1,004,557
ave. per event		78	11	881	22,470	23,362
Insect Infestation	1	0	0	0	0	0
ave. per event		0	0	0	0	0
Slides	7	799	64	110	400	574
ave. per event		114	9	16	57	82
Wild Fires	1	0	0	0	0	0
ave. per event		0	0	0	0	0
Wind Storm	2	270	0	0	22,656	22,656
ave. per event		135	0	0	11,328	11,328

Table (4) Summarized table of nature disasters in Afghanistan

Poverty is the real killer:

Afghanistan is one of the poorest countries in the world. According to the Afghanistan Information Management Service (AIMS), the country's "high level of poverty, lack of livelihood and income generating opportunities, chronic health problems, and poor state of the infrastructure all add to the burden of natural disasters on the people of Afghanistan". UNDP, in its report "Reducing Disaster Risk", states very clearly those death rates are far higher in poor countries than in wealthier nations, even if the incidence and intensity of disaster is equal. "The real killer is poverty not the forces of nature: only 11% of the people exposed to natural hazards live in poor countries, but they account for more than 53% of the total number of recorded deaths", says the report.

Afghan women face high maternal mortality:

Warnings have been issued about the soaring maternal death rates in Afghanistan after it was revealed that 50 women die each day.

The vast majority of these pregnancy-related deaths are preventable, say experts.

A spokesman for the United Nations Population Fund described the situation as "extraordinary" and "shocking".

Estimates suggest that there are as many as 1,700 pregnancy-related deaths for every 100,000 live births.

The main reason for the high death rate is a severe shortage of family planning and emergency obstetric services.

Peter Huff-Roselle, the head of the UNPF in Kabul, said: "In Afghanistan every day, 50 women die of complications related to pregnancy.

"Virtually all these deaths are preventable."

Afghanistan also has one of the highest infant mortality rates in the world - due to lack of access to medication and treatment

Disaster Risk Reduction Policy in Afghanistan:

Although the disaster preparedness law was developed three decades ago, remains relevant and required only minor fine-tuning. The United Nations Assistance Mission in Afghanistan (UNAMA) and the Asia Development Bank has collaborated with the Government of Afghanistan and other partners to develop a national plan for disaster management as well and strategy for Institutional Strengthening in Risk management.

Afghanistan is reemerging to normality after more than two decades of war. The central Government is reorganizing several departments and allocating responsibilities. The government Offices responsible for disaster risk management systems are the Department for Disaster Preparedness (DDP) and the Ministry of Rural Rehabilitation and Development (MRRD).

DDP receives information from the provincial offices of MRRD (located in each district) on floods, Earthquakes, landslides, avalanches, sand movements, storms, locust, and epidemics, extreme Temperatures (+/-) etc.

MRRD and DDP record the information received from the field in their databases. The Red Cross also collects information from their offices and shared them with the government responsible.

There has been a hazard mapping done in 2003 at the national scale, which ranked all provinces qualitatively in terms of hazards.

The information collected was from local authorities based on historic events and not through any quantitative, empirical methods.

Organizations working at the community level such as the Afghan Red Crescent Society have provided training in hazard assessment and mapping to community volunteers in order to assist in the preparation of plans, other efforts are also underway, such as the updating of various databases on water, using the monitoring of water levels in wells in certain parts of the country.

In year 2003 the United Nation Center for Regional Development (UNCRD) had joint project with Ministry of Urban Development and Housing (MUDH) they prepare together the guideline for earthquake resistant design, construction, and retrofitting of building in Afghanistan this guidelines is printed in English and local Persian

languages, which is very useful for earthquake design principle for training of engineers, to select the proper material and building construction technology for earthquake safe building in the regions and good for repair and seismic retrofitting of existing buildings.

Because of almost three decades of war no proper building codes are established, however there are building statements in Kabul municipally but hardly implemented. Ministry of Urban Development is considering the establishment of building codes as the priority and has started working and researching for proper practical building codes specified for different areas in Afghanistan.

There is an emergency fund (25,000,000 Afs. = \$500,000) managed by MRRD and DDP, the money is allocated to the fund by the central government. The money comes from both the National government and international donors. Different ministries have allocated some part of their annual budget for emergency preparedness and response. Since the government resources are limited they are relying on the direct support of international organizations and foreign support. Some limited resources are available in some of the ministries (MRRD, MOH, MOI, MOD and etc) in terms of tents, ambulance, medicine (WHO pre-positioned some New Health Emergency Kits (NHEK) and other emergency supplies in regional sub offices. by one NHEK can cover the health needs of 10,000 patients for 3 months in disasters), helicopter, water tankers, fire fighting equipments and etc.

In Afghanistan, the education system has undergone several problems during the years of war. Schools lack infrastructures, teachers and updated teaching programs. Therefore, a consistent disaster-preparedness teaching programmed has not been yet introduced to the primary and secondary education system.

The main problem of the disaster mitigation policy in Afghanistan:

Due to more than two decade of civil war in Islamic Republic of Afghanistan all institution in Afghanistan including education system, infrastructure, and rehabilitation of the country is heavy affected by the civil war in the country even we don't have any specific building design Code to resist against the earthquake.

The disaster policy in Afghanistan is also affected by the civil war in the country before the war in the country we had some policy and

management against the disaster mitigation management, unfortunately due to civil war we did not develop that policy even we lost what we had in the past.

In these days the disaster policy in Afghanistan is growing up by the support of UN and International Organizations with the Islamic Republic of Afghanistan, now in the country at some province we have the office for disaster mitigation with poor condition the main problem is that the government has no enough budget for the disaster mitigation policy, for example we don't have the remote control system in the country, I can say the transportation system is one of the important parameter in the disaster mitigation, the transportation condition is the worst in Afghanistan even at the some district of some provinces like Badakhshan and Nooristan provinces we have no road system there the people of the village more then 20 hours walked by foot then they will reached to the car, in these districts in the winter season for more then 4 months we can not go there because of the heavy snow at the these mountains area.

As we learn there in Japan the minimum knowledge is important for every body to know about the disaster, what is the disaster, what the earthquake and what is the affect of that to the human life and environment.

Conclusion and Recommendations:

For the reduction of disaster in the country I supposed to improve the following items at lest for the emergency purposed:

1. To have our own building design code against the earthquake to keep the building and human life safe as much as possible.
2. The country need to have the microzonation map for seismic activity.
3. The hazard mapping of the country due to different kind of disaster is needed to specify the risk area due to disasters.
4. For the reduction of the disasters that is necessary to include the disaster subject in different schools level of the ministry of education for minimum knowledge which can us in the reduction of different kind of disasters.
5. Policy, advice to the President and the National Commission for disaster preparedness.
6. Monitoring and evaluation of provincial and district level activities.

7. Deployment of technical and material resources in high risk areas;
8. Preparation of, quarterly, and annual progress report;
9. Emergency relief assistance to disaster victims;
10. The country need to have the good transportation system in all over the country for different season of the year.
11. It is needs to have the disaster office with all emergency tolls at least in every province of the country.
12. Training program and public education is necessary for disaster reduction.
13. For the improvement of disaster policy it is very important to have community assistants program which can help more for the reduction of the disasters.
14. Awareness rising for disaster prevention, mitigation and preparedness.
15. Coordination of activities between various ministries, NGOs and communities in disaster reduction,
16. Efficient use of financial and material resources for disaster
17. Surveying and assessment of high risk areas and preparation of national disaster risk management and contingency plans for the country.
18. Early warning and alert mechanism.

References:

- ❖ Internet www.aims.org.af , <http://neic.usgs.gov/neis/e> , <http://earthquake.usgs.gov/activity/past.html>

Abbreviations:

UNAMA	United Nation Assistance Mission in Afghanistan
UNDP	United Nation Development Program
UNCRD	United Nations Center for Regional Development
FAO	Food and Agriculture Organization of UN
MUDH	Ministry of Urban Development and Housing
MRRD	Ministry of Rural Rehabilitation and Development
WHO	World Health Organization
MOH	Ministry of Health
MOI	Ministry of Irrigation
MOD	Ministry of Defense
DDP	Department of Disaster Preparedness.