

## 26 October 2015 Badakshan Afghanistan and Pakistan Earthquake Disaster Risk Reduction Situation Report

DRR sitrep 2015-003 – 28 Oct 2015

### Summary report

#### Earthquake situation

An earthquake struck Badakshan Province in Afghanistan on 26 October and also affected a large area of Pakistan. According to the US Geological Service the magnitude 7.5 quake struck at 09:09 UTC (UTC), was 212 kilometers (132 miles) deep, and the epicenter was 82 kilometers southeast of Fayzabad, Afghanistan, in the district of Jurm, in the Hindu Kush mountain range. The impact of the earthquake was felt throughout most of Afghanistan but most predominantly in Badakhshan, Takhar, Kunduz, Baghlan, Nuristan, Laghman, Kunar, Nangarhar and Kabul.

As of 28 October 28, the National Disaster Management Authority<sup>1</sup> in Pakistan reports that the death toll has reached 267 with 1,856 people injured and 11,389 houses damaged. In Afghanistan, officials said the earthquake has killed at least 115 people with 538 people injured.<sup>2</sup>

#### What are the most devastating earthquakes to hit Afghanistan and Pakistan in recent memory?

There have been more than 31 strong earthquakes in Afghanistan since 1900. The deadliest was in 1998, which killed more than 7,000 people and affected more than 140,000 people. In Pakistan there have been more than 28 strong earthquakes internationally reported since 1900. The deadliest earthquake in Pakistan was the 2005 Kashmir event, which killed more than 70,000 people and affected more than 5 million people.

#### What are the underlying drivers of earthquake disaster risk in Afghanistan and Pakistan?

Disasters in Afghanistan and Pakistan are mainly driven by vulnerability, exposure of people and assets.<sup>3</sup> Afghanistan and Pakistan are estimated to have a high overall exposure, high vulnerability and low coping capacity. In Afghanistan, despite some achievements and commitments made or planned in country, they are incomplete or there has not been substantive progress<sup>4</sup>. Afghanistan has been ranked as one of the most-at-risk countries in the world<sup>5</sup>. In the case of Pakistan, it has made some achievements in the last years to ensure disaster risk reduction as a national and local priority, however has encountered still some lack of commitment, financial and technical capacity.

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<sup>1</sup> <http://www.ndma.gov.pk/new/disasters/losses.php>

<sup>2</sup> <http://www.bbc.com/news/world-asia-34644125>

<sup>3</sup> <http://www.inform-index.org/Results/Global>

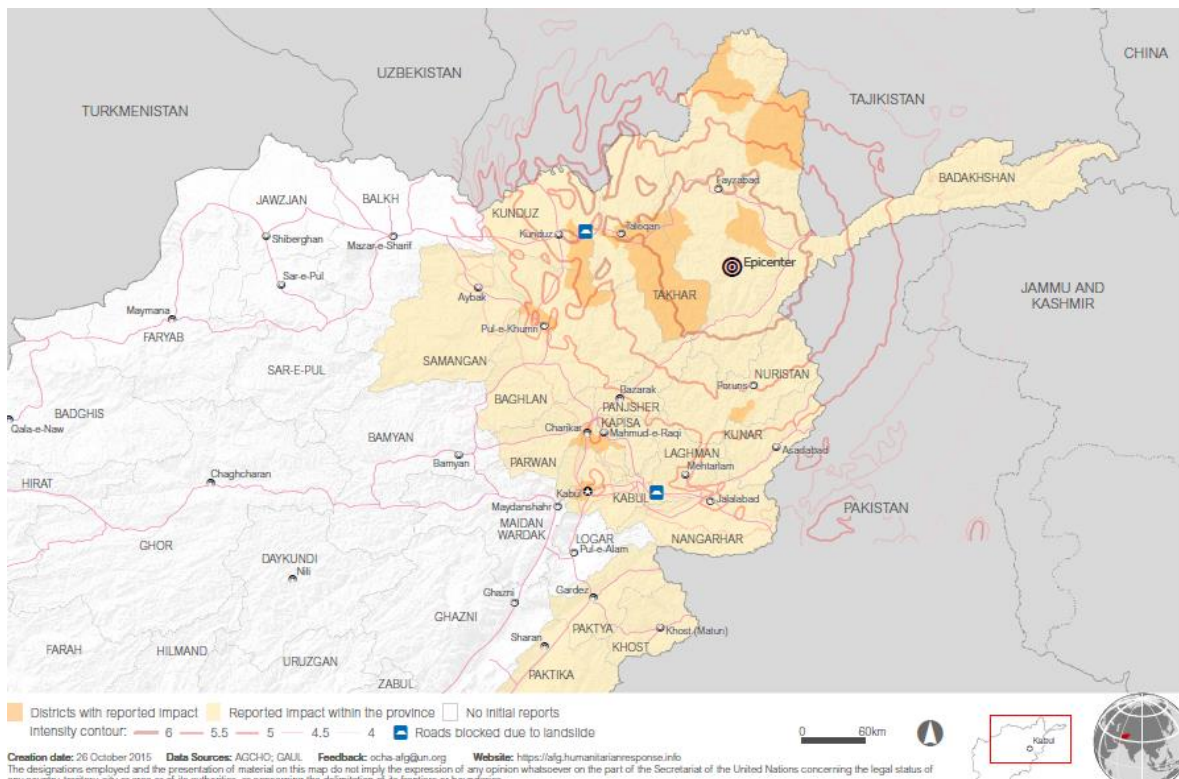
<sup>4</sup> Afghanistan and Pakistan HFA self-assessment reports: [http://www.preventionweb.net/files/42575\\_AFG\\_NationalHFAprogress\\_2013-15.pdf](http://www.preventionweb.net/files/42575_AFG_NationalHFAprogress_2013-15.pdf) and [http://www.preventionweb.net/files/42312\\_PAK\\_NationalHFAprogress\\_2013-15.pdf](http://www.preventionweb.net/files/42312_PAK_NationalHFAprogress_2013-15.pdf)

<sup>5</sup> <http://preventionweb.net/go/42499>

## 1. Background Information on the 2015 Badakhshan Afghanistan and Pakistan Earthquake

According to information provided from the United States Geological Service (USGS)<sup>6</sup>, the earthquake on 26 October 2015 is summarized below:

- Magnitude: 7.5
- Date-Time: 2015-04-25 09:09:32 (UTC)
- Location: 36.441°N 70.717°E
- Depth: 212.5 km (132.1 mi)
- Region: 45km N of `Alaqaqdari-ye Kiran wa Munjan, Afghanistan



**Figure 1:** Map of districts and provinces with reported impact by Badakhshan earthquake. **Source:** OCHA

### What is the expected impact in terms of hazard of this event?

According to USGS<sup>1</sup>, earthquakes such as this event, with focal depths between 70 and 300 km, are commonly termed "intermediate-depth" earthquakes. They typically cause less damage on the ground surface above their foci than is the case with similar magnitude shallow-focus earthquakes, but large intermediate-depth earthquakes may be felt at great distance from their epicenters. "Deep-focus" earthquakes, those with focal depths greater than 300 km, also occur beneath the northeastern part of Afghanistan. Previous devastating earthquakes occurred in the region such as the 2005 Kashmir earthquake which had also a magnitude of 7.5, however just 26 km deep. This year's earthquake, at a depth of more than 200km, appears to have caused widespread but less severe ground shaking.

<sup>6</sup> [http://earthquake.usgs.gov/earthquakes/eventpage/us10003re5#general\\_summary](http://earthquake.usgs.gov/earthquakes/eventpage/us10003re5#general_summary)

## 2. Historical Disasters

There are a number of sources of data for historical disaster impacts for Pakistan, though fewer for Afghanistan. The two most prominent ones are the nationally reported losses, and the internationally reported losses. The national database only has records from 1980 to the present and covers all scales of disasters – from small to large. The international database covers the period 1900 to the present, and only covers disasters that kill more than 10 people, and/or affect more than 100 people and/or cause a declaration of a state of emergency or a call for international assistance.

### 2.1. Earthquakes in Pakistan

The below data is sourced from the national disaster loss database from the Desinventar database. The main sources of data are government reports and the level of observation is national, so it has a very good coverage in terms of source, space and time. The data is collected in a disaggregated manner at municipality level, which allows its use in sub-national analysis.

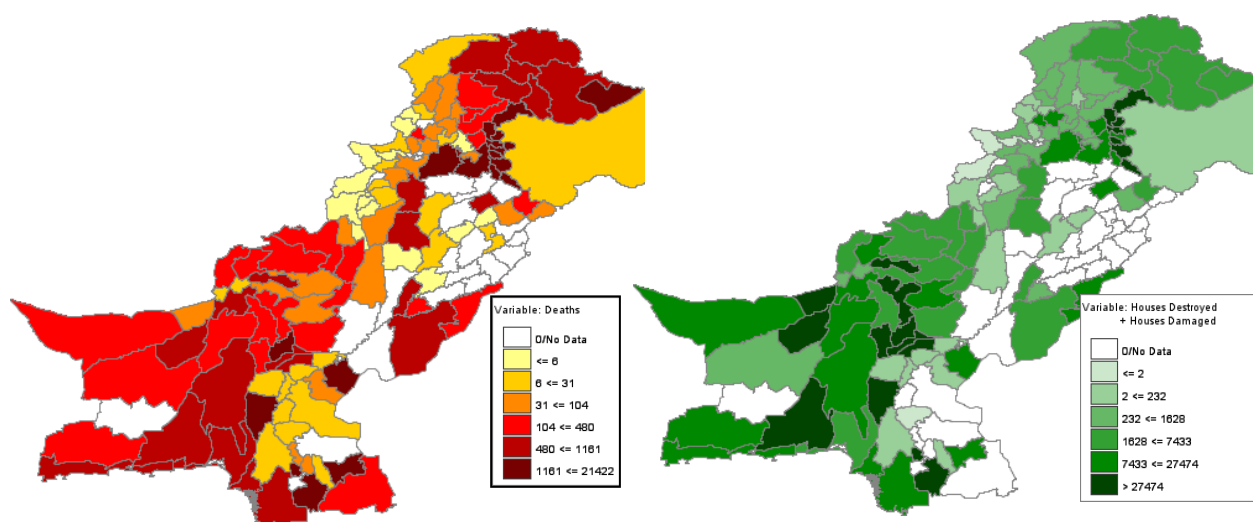
The table below shows 35 years of earthquakes nationally reported. Earthquakes have been reported at national level as the most deadly events.

#### Earthquakes in Pakistan from national datasets 1980-2015<sup>7</sup>

Event	DataCards	Deaths	Injured	Missing	Houses Destroyed
Earthquake	407	45895	113499	23	360292
	<b>Houses Damaged</b>	<b>Affected</b>	<b>Damages in crops Ha.</b>	<b>Lost Cattle</b>	<b>Damages in roads Mts</b>
	217773	3447280	0	4432	155288

**Note:** \* Number of disaggregated records, per date per location, within the country. **Source:** UNISDR <http://www.desinventar.net/>

A map showing deaths and houses damaged and destroyed by earthquakes from 1980 to 2015 is shown in Figure 2 below. This shows that past earthquake events have struck before in many of the areas affected by the 2015 earthquake in the NW region of the country. It also shows that past earthquakes have severely affected the southern part of Pakistan.



**Figure 2.** Distribution of earthquake deaths (left) and houses destroyed and damaged (right) from nationally reported events from 1980 to the 2015. **Source:** UNISDR, <http://www.desinventar.net/>

<sup>7</sup> UNISDR supports countries develop and maintain national disaster loss databases, which are a key source of disaster risk information. There are currently 84 Desinventar disaster loss databases globally.

Between 1980 and 2015, there were recorded more than 407 earthquakes and generated more than 45895 datacards<sup>8</sup> (as recorded in a disaggregated manner, at municipality level). In 35 years, the tremors damaged more than 217,000 and destroyed more than 360,000 houses. Also these earthquakes killed 45,895 and affected more than 3 million people.

## 2.2 Internationally Reported Losses in Afghanistan and Pakistan 1900-2014

The data below is sourced from the Centre for Research on the Epidemiology of Disasters (CRED) database. It keeps data of disaster impacts from 1900 to the present, and gets its data from UN agencies, US Government agencies, official governmental sources, IFRC, research centers, Lloyd's, Reinsurance sources, the press, and private sources.<sup>9</sup>

### What are the deadliest earthquake events in Afghanistan in recent memory?

Year	Total deaths	Total affected	Total damage
1954	<b>2,000</b>	--	--
1982	500	38,000	1,000
1991	154	7,000	--
1994	160	100,330	--
1998	7,023	<b>149,753</b>	<b>20,000</b>
2002	<b>1,200</b>	100,891	--

*Source: EM-DAT: The OFDA/CRED International Disaster Database, [www.emdat.be](http://www.emdat.be) - Université catholique de Louvain - Brussels - Belgium*

The deadliest earthquake in Afghanistan from 1900 to 2015 was the 1998 event, which killed more than 7,000 people and affected more than 140,000 people.

### What are the deadliest earthquake events in Pakistan in recent memory?

Year	Total deaths	Total affected	Total damage
1935	<b>60,000</b>	--	--
1945	4000	--	--
1974	4700	50,200	3255
1991	300	204,794	10
2005	<b>73,338</b>	<b>5128309</b>	<b>5,200,000</b>
2013	462	200,974	100,000

*Source: EM-DAT: The OFDA/CRED International Disaster Database, [www.emdat.be](http://www.emdat.be) - Université catholique de Louvain - Brussels - Belgium*

The deadliest earthquake in Pakistan from 1900 to 2015 was the 2005 Kashmir event, which killed more than 70,000 people and affected more than 5 million people.

<sup>8</sup> A data card is a unique database entry, or record, which provides a proxy of disaster frequency

<sup>9</sup> There are other international databases for Afghanistan and Pakistan, such as the Natural Disaster incidents database by OCHA: <http://bit.ly/1WfSKu9> (Afghanistan) and <http://bit.ly/1POIOci> (Pakistan)

## 2.3 Other disasters in Afghanistan and Pakistan

### Disasters in Pakistan from national datasets 1980-2015

The below data table is sourced from the national disaster loss database from Desinventar database as mentioned previously.

Event	DataCards	Deaths	Injured	Missing	Houses Destroyed	Houses Damaged	Affected	Damages in crops Ha.	Lost Cattle	Damages in roads Mts
Avalanche	81	554	1089	6	382	1,620	10,223	2046.8	569	202625
Cold Wave	30	175	0	0	0	0	11,135	0	41	0
Cyclone	38	204	1158	29	49	10,843	36627	0	58	0
Drought	113	1,759	476	0	0	0	46,666	0	414	0
<b>Earthquake</b>	<b>407</b>	<b>45,895</b>	<b>113,499</b>	<b>23</b>	<b>360,292</b>	<b>217,773</b>	<b>3,447,280</b>	<b>0</b>	<b>4,432</b>	<b>155,288</b>
Epidemic	1,005	5695	0	0	0	0	245,944	0	46	0
Flash flood	862	3363	8,631	44	99,937	104,428	2,387,992	802,676.51	10,075	163,644
Flood	2,674	24,435	115,926	848,720	226,439	410,763	8,499,121	12,267,753.63	46,079	1,183,413
Hailstorm	108	49	936	0	0	205	82,645	39,425.51	70	0
Heat Wave	145	944	115	0	0	0	47,735	0	499	0
Landslide	571	2,105	4,389	85	710	3,236	32,950	3,401.92	1,369	220,137
Lightning	521	535	386	0	97	399	173	0	821	0
Rains	1,533	12,050	33,830	985	21,182	231,096	7,988,098	4,687,836.791	14,110	211,063
Sandstorm	10	20	123	0	11	81	1487	0	27	0
Snowfall	312	425	1,788	0	486	7,071	28,364	4,255	374	162,461
Snowstorm	22	114	0	2	8	401	6,833	0	6	0
Storm	138	262	1,103	4	81	5,330	26,824	0	119	0
Thunderstorm	35	83	141	0	4	148	1,806	0	24	0
Windstorm	121	258	1,531	0	507	4,843	235,669	0	123	15,420
<b>TOTAL</b>	<b>8,726</b>	<b>98,925</b>	<b>285,121</b>	<b>849,898</b>	<b>710,185</b>	<b>998,237</b>	<b>23,137,572</b>	<b>17,807,396.16</b>	<b>79,256</b>	<b>2,314,051</b>

**Note:** \* Number of disaggregated records, per date per location, within the country. **Source:** UNISDR <http://www.desinventar.net/>

### What are the deadliest and most costly disasters in Afghanistan from 1900 to 2015?

Disaster type	Events count	Total deaths	Total affected	Total damage ('000 US\$)
Drought	6	37	<b>6,558,000</b>	142,250
<b>Earthquake</b>	31	<b>11,427</b>	629,616	54,060
Epidemic	13	1,070	246,945	0
Extreme temperature	7	1,934	370,952	10
Flood	86	7,689	1,440,251	<b>404,000</b>
Landslide	20	1,641	309,582	0
Storm	3	126	5	0

*Source: EM-DAT: The OFDA/CRED International Disaster Database, [www.emdat.be](http://www.emdat.be) - Université catholique de Louvain - Brussels - Belgium*

The most frequent disasters in Afghanistan are floods with 86 events that are internationally reported. Floods cost more than 400 million USD from 1900 to 2015 making it the most costly hazard for Afghanistan. Droughts are also the disaster that affects the most number of people, where the 6 events so far have affected more than 6 million people. However the deadliest disasters are earthquakes, which have killed close to 11,400 people so far.

### What are the deadliest and most costly disasters in Pakistan from 1900 to 2015?

The data in the two following tables below are sourced from the Centre for Research on the Epidemiology of Disasters (CRED) database.

Disaster type	Events count	Total deaths	Total affected	Total damage ('000 US\$)
<b>Drought</b>	1	143	2,200,000	247,000
<b>Earthquake</b>	28	<b>143,445</b>	6,772,571	5,329,755
<b>Epidemic</b>	5	152	16,115	0
<b>Extreme temperature</b>	17	2774	80,574	18,000
<b>Flood</b>	59	12,169	<b>57,065,737</b>	<b>19,798,148</b>
<b>Landslide</b>	22	830	34,041	18,000
<b>Storm</b>	55	16507	23,566,685	2,885,066

*Source: EM-DAT: The OFDA/CRED International Disaster Database, [www.emdat.be](http://www.emdat.be) - Université catholique de Louvain - Brussels - Belgium*

The most frequent disasters in Pakistan are floods with 59 events that are internationally reported. Floods cost more than 19 billion USD from 1900 to 2015 making it the most costly hazard for Pakistan. Floods are also the disaster that affects the most number of people, where the 59 events so far have affected more than 57 million people. However, the deadliest disasters are earthquakes, which have killed close to 140,000 people so far, most of deaths occurring in the 1935 Balochistan and 2005 Kashmir earthquakes.



### 3. Underlying risk drivers for Afghanistan and Pakistan

#### 3.1. Disaster Risk Driver Indicators

##### Afghanistan: Basic Country Statistics and Indicators (2014)

Population	People	30,551,674
Urban	% Total population	25.871
Rural	% Total population	74.129
Urban population growth	% Annual	3.979
Population density	People / km <sup>2</sup>	46.8
GDP (Gross Domestic Product)	Million US\$	20,724.664
GDP per capita	US\$	664.77
Capital stock	Million US\$	60,19
GFCF (Gross Fixed Capital Formation)	Million US\$	3,607.735
Social Expenditure	Million US\$	1,125
Gross Savings	Million US\$	-2,985.041
Total reserves	Million US\$	6,441.933

Source: PreventionWeb Afghanistan country page: <http://www.preventionweb.net/countries/afg/data/>

##### Pakistan: Basic Country Statistics and Indicators (2014)

Population	People	182,142,594
Urban	% Total population	37.860
Rural	% Total population	62.140
Urban population growth	% Annual	2.799
Population density	People / km <sup>2</sup>	236.3
GDP (Gross Domestic Product)	Million US\$	236,624.928
GDP per capita	US\$	1,275.30
Capital stock	Million US\$	502,344
GFCF (Gross Fixed Capital Formation)	Million US\$	29,870.714
Social Expenditure	Million US\$	9,028
Gross Savings	Million US\$	48,878.278
Total reserves	Million US\$	5,155.989

Source: PreventionWeb Pakistan country page: <http://www.preventionweb.net/countries/pak/data/>

#### Probabilistic<sup>10</sup> Economic Loss Risks based on the Global Assessment Report 2015

The UNISDR Global Assessment Report on Disaster Risk Reduction (GAR)<sup>11</sup> is a comprehensive review and analysis of disaster risk and risk management, and is published every two years. GAR15 was launched in March 2015 and focused on how to make development sustainable. Main findings of the report are based on analysis of the GAR risk model, which is a multi-hazard model developed in partnership with leading scientific and technical institutions in the world. The GAR global risk model allows the probabilistic estimation of risks for a number of these hazards, permitting a better understanding of the levels of disaster risk. Two elements that the GAR risk model can produce at the national level are the probable maximum loss and the average annual loss.

<sup>10</sup> A probabilistic approach to risk assessments estimates the likelihood of an event over a specified time. This method is different from a deterministic method where a possible source of earthquake is determined and the probable maximum earthquake and the impacts that this source can generate are then estimated.

<sup>11</sup> <http://www.preventionweb.net/english/hyogo/gar/2015/en/home/>

### Probable Maximum Loss (PML) for Earthquakes in Afghanistan

Return Period	20	50	100	250	500	1,000	1,500
Probable maximum loss for earthquake hazards	318	638	1,035	1,807	2,585	3,515	4,071

**Note:** Earthquake hazard mean return period in years - values in million US\$. **Source:** UNISDR, Global Assessment Report 2015. <http://www.preventionweb.net/countries/afg/data/>

In the case of Afghanistan, an earthquake that strikes Afghanistan once every 50 years, it is expected that the maximum economic loss for such an event will be about USD 638 million.

It should be noted that this amount estimated as the replacement cost of properties destroyed by the earthquake is different from the needs in the relief, recovery and reconstructions phases of the disaster that the earthquake will cause. The amount reflects the value of the properties, which is related to building type, location, and construction methods.

### Probable Maximum Loss (PML) for Earthquakes in Pakistan

Return Period	20	50	100	250	500	1,000	1,500
Probable maximum loss for earthquake hazards	942	2,209	3,948	7,498	11,178	15,751	18,347

**Note:** Earthquake hazard mean return period in years - values in million US\$. **Source:** UNISDR, Global Assessment Report 2015. <http://www.preventionweb.net/countries/pak/data/>

The above shows that for an earthquake that will likely strike Pakistan once every 50 years, it is expected that the maximum economic loss for such an event will be about USD 2,209 million.

### Average Annual Loss (AAL) by hazard in Afghanistan

Hazard	Absolute [Million US\$]	Capital stock [%]	GFCF [%]	Social expenditure [%]	Total Reserves [%]	Gross Savings [%]
Earthquake	146.81	0.244	4.069	13.053	2.279	-4.918
Flood	92.17	0.153	2.555	8.195	1.431	-3.088
Multi-Hazard	238.98	0.397	6.624	21.248	3.710	-8.006

**Source:** UNISDR, Global Assessment Report 2015. <http://www.preventionweb.net/countries/afg/data/>

The annual average loss table for Afghanistan shows that it is earthquakes pose the greatest threat to Afghanistan in terms of hazard impacts. Earthquakes pose to cost Afghanistan about USD 147 million per year, which represent around 13% of its social expenditure and more than 2.2% of its total reserves. Floods pose a similar threat, but not as large as those posed by earthquakes.



### Average Annual Loss (AAL) by hazard in Pakistan

Hazard	Absolute [Million US\$]	Capital stock [%]	GFCF [%]	Social exp [%]	Total Reserves [%]	Gross Savings [%]
Earthquake	272.05	0.054	0.911	3.013	5.276	0.557
Wind	7.5	0.001	0.025	0.083	0.145	0.015
Storm Surge	18.1	0.004	0.061	0.2	0.351	0.037
Tsunami	0.17	0	0.001	0.002	0.003	0
Flood	<b>1,029.80</b>	0.205	3.448	11.407	19.973	2.107
Multi-Hazard	1,327.62	0.264	4.445	14.706	25.749	2.716

Source: UNISDR, Global Assessment Report 2015. <http://www.preventionweb.net/countries/pak/data/>

The annual average loss table above shows that it is floods that pose the greatest threat to Pakistan in terms of hazard impacts. Over a long period of time, floods pose to cost Pakistan more than USD 1 billion per year, which represent more than 11% of its social expenditure and more than 19% of its total reserves.

### INFORM 2015 Risk Index<sup>12</sup>

The INFORM model adopts the three aspects of vulnerability reflected in the UNISDR definition. The aspects of physical exposure and physical vulnerability are integrated in the hazard & exposure dimension, the aspect of fragility of the socio-economic system becomes INFORM's vulnerability dimension while lack of resilience to cope and recover is treated under the lack of coping capacity dimension.

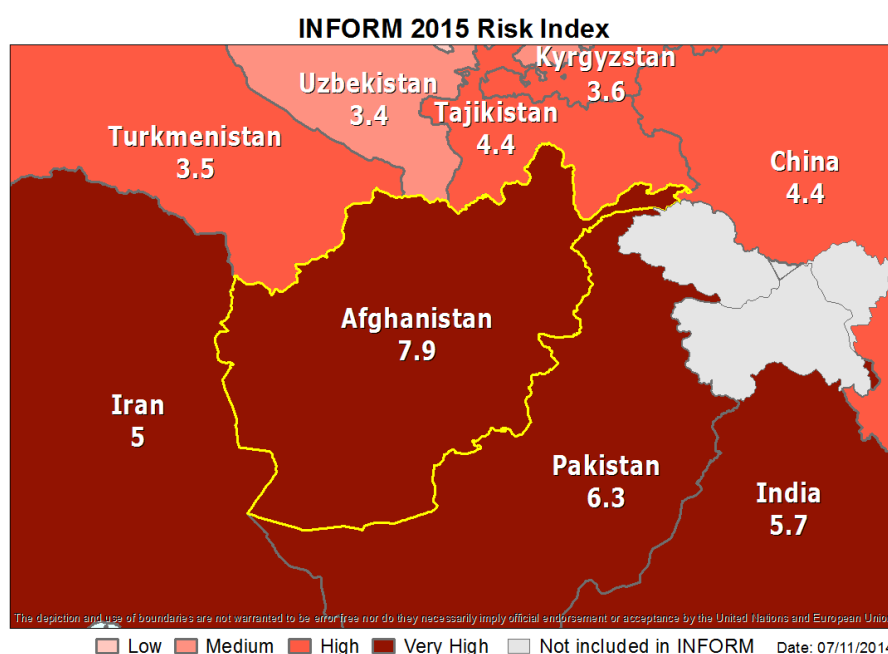


Figure 3: INFORM 2015 Risk Index for Afghanistan and Pakistan.

Source: INFORM [www.inform-index.org/](http://www.inform-index.org/)

<sup>12</sup> INFORM is a collaboration of the Inter-Agency Standing Committee Task Team for Preparedness and Resilience and the European Commission: [www.inform-index.org/](http://www.inform-index.org/)

According to the INFORM 2015 Risk Index, Afghanistan has a risk index of 7,9 while Pakistan has a risk index of 6.3, having both a very high risk profile in terms of hazards, vulnerability and coping capacity. According to this index, Afghanistan is one of the most-at risk of crisis and disasters countries in the world.

### **3.2. Governance**

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#### **Disaster Risk Reduction Implementation Status at National Level in Afghanistan**

According to the 2013-2015 self-assessment report<sup>13</sup> submitted by the Afghanistan National Disaster Management Authority (ANDMA) to UNISDR on their implementation of the Hyogo Framework for Action (HFA), the Authority noted:

**On the integration of disaster risk reduction into development plans**, Afghanistan reports that it has directed local authorities to allocate 25% of local budgets for DRR related activities. There are currently 143 established Disaster Management committees at the district level that are currently engaged and coordinating disaster management activities at the local level across 24 provinces.

**On institutional frameworks**, the Government's Strategic National Action Plan (SNAP) for Disaster Risk Reduction from 2011, the ANDMA's National Disaster Management Plan from 2010 in addition to disaster management (DM) laws, 5 year DM plan, sectoral DM plans and provincial DM plans have been put in place however have not been properly implemented due to insufficient budgeting, lack of human resources and insecurity within the country.

**On integration of DRR in preparedness and recovery**, the Government of Afghanistan has established a seismic monitoring system within the Department of Mines and Geology. Emergency response preparedness SOPs have been developed to provide guidance on decision making, prioritization of humanitarian needs and to rapid response to an emergency within the first seven days after a disaster occurring.

There are approximately 12,740 school buildings in Afghanistan, however due to the frequency and urgency in their construction, schools are being built without meeting the required level of seismic safety. School and hospital safety needs to be prioritized highlighting their seismic safety in earthquake prone areas and to address seismic vulnerability in all public school buildings. There is also still a need for a comprehensive policy and strategy to be developed for public awareness in Afghanistan.

The self-assessment scores by the NADMA according to the HFA five priority areas across each of the Priorities for Action and core indicators, were either a 2 or 3. This indicates that there have been some achievements and commitments made or are planned, they are incomplete or there has not been substantive progress. The weakest areas of work on DRR in Afghanistan the use of knowledge, innovation and education to build a culture of safety and resilience at all levels and identifying, assessing and monitoring disaster risks and enhancing early warning.

#### **Disaster Risk Reduction Implementation Status at National level in Pakistan**

According to the 2013-2015 self-assessment report<sup>14</sup> submitted by the Government of Pakistan to UNISDR on their implementation of the Hyogo Framework for Action (HFA), the government notes a summary of its achievements with regard to disaster risk reduction as outlined below.

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<sup>13</sup> [http://www.preventionweb.net/files/42575\\_AFG\\_NationalHFAprogress\\_2013-15.pdf](http://www.preventionweb.net/files/42575_AFG_NationalHFAprogress_2013-15.pdf)

**On the integration of disaster risk reduction into development plans,** Pakistan reports a National Disaster Risk Reduction (DRR) Policy was approved by the National Disaster Management Commission (NDMC) headed by the Prime Minister of Pakistan on 21st February, 2013. A National Disaster Management Plan for 10 years (2012-2022) was also formulated and approved by the NDMC. The plan, which covers the complete spectrum of disasters including: pre, during & post disaster phases, would steer the institutional and technical direction of disaster risk management in Pakistan.

The country reports as key development, the incorporation of DRR Checklist as an integral part of the Pakistan's public sector development projects proposal form i.e. PC-I, ensuring DRR mainstreaming in each new project before its approval by the highest planning forum for implementation. The National Working Group on Mainstreaming DRR continues to coordinate and facilitate the mainstreaming of DRR for sustainable DRR integration and development in policies, planning and programming in all line ministries and related professional bodies. DRR mainstreaming strategies for six federal ministries had already been formulated for implementation. The Provinces of Punjab, Balochistan and Khyber Pakhtunkhwa have also initiated replication of similar arrangements by establishing Provincial Working Groups on Mainstreaming DRR within their Planning & Development Departments.

**On institutional frameworks,** the country reports the National Disaster Management Act, 2010 has been enacted by the National Parliament. The Act provides legal framework for functioning of the existing disaster management system in Pakistan at all levels. The National Disaster Management Rules had also been drafted which are presently undergoing consultative process before their formal approval and adoption from the relevant forums and authorities.

The NDMA is undergoing process of reorganization by creation of new sanctioned posts, wings and strengthening of its existing Wings, NIDM and Media Cell. The annual budget of NDMA for Financial Year 2014-2015 has been increased to meet the emerging demand of human and financial resources from PKR 93 million in 2011-12 to PKR 169,417 for the current fiscal year.

The country also reports the Emergency Service (Rescue 1122) is now the executive arm of the provinces for emergency relief services wherever it is available. The Province of Khyber Pakhtunkhwa has also established Emergency Service (Rescue-1122), Balochistan, Sindh, Azad Jammu & Kashmir and Gilgit-Baltistan have also notified establishment of Emergency Services on the model of Punjab Emergency Services & Chitral. Emergency Operations Centers at National, Provincial, and District levels have been established and are being strengthened with improved infrastructure (i.e. equipment) and skilled manpower. The National Institute of Disaster Management (NIDM) has been established in a temporary premises. Efforts are on to secure local as well as donor funding to establish the institution on permanent footing and construction of institute's Complex which will also serve to house NDMA and NEOC.

Finally, the country reports on community Based Disaster Risk Management Programs (CBDRM) programs that are being promoted under the NDMP and various stakeholders including International NGOs and local NGOs are implementing multi-dimensional CBDRM programmes in various regions up to the local and community level.

**On integration of DRR in preparedness and recovery,** the ERRA continued implementing reconstruction and rehabilitation programmes in the earthquake affected areas of Khyber

Pakhtunkhwa and Azad Jammu & Kashmir. The NDMA ensured that all projects and activities in relief as well as Early Recovery undertaken by all stakeholders including the federal and provincial

governments, UN and International community, NGOs and private philanthropy, during all emergencies, comply with DRR standards and guidelines outlined in the NDMP.

The self-assessment scores by the Government according to the HFA five priority areas were either 3 or 4. This indicates that there have been some important achievements especially in ensuring that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation but still there is some lack of commitment, financial and technical capacity. The weakest areas identified in the assessment include monitoring of disaster risk and the use of knowledge; education to build a culture of safety and resilience; and reducing the underlying risk factors.

#### Self-assessment levels of progress and description of achievements

Level	Description of achievements for each level of progress
5	Comprehensive achievement has been attained, with the commitment and capacities to sustain efforts at all levels.
4	Substantial achievement has been attained, but with some recognized deficiencies in commitment, financial resources or operational capacities.
3	There is some institutional commitment and capacities to achieving DRR but progress is not comprehensive or substantial.
2	Achievements have been made but are incomplete, and while improvements are planned, the commitment and capacities are limited.
1	Achievements are minor and there are few signs of planning or forward action to improve the situation.

## 4. Useful DRR Resources

### 4.1. National Disaster Management Authority (Government of Pakistan)

The National Disaster Management Authority (NDMA) is the lead agency at the Federal level to deal with whole spectrum of Disaster Management Activities.

- Preliminary losses and damages/ Earthquake 2015:  
<http://www.ndma.gov.pk/new/disasters/losses.php>

### 4.2. Preventionweb.net

PreventionWeb.net is the participatory platform of the disaster risk reduction community a knowledge service of the UN Office for Disaster Risk Reduction (UNISDR). It aims to help people understand risk and do risk reduction (DRR) more easily by providing a place to share knowledge and information, and connect. The platform hosts tools including regional, national and local DRR framework implementation progress reporting: <http://www.preventionweb.net/>

- PreventionWeb Afghanistan country page:  
<http://www.preventionweb.net/english/countries/asia/afg/>
- PreventionWeb Pakistan country page:  
<http://www.preventionweb.net/english/countries/asia/pak/>
- Recovery and Earthquake documents and publications: <http://bit.ly/1I2DILj>
- Collection of DRR related standards: <http://bit.ly/1KzhzNq>
- Afghanistan: Statement made at the Third UN World Conference on Disaster Risk Reduction (WCDRR) <http://preventionweb.net/go/44104> (external video link)
- Afghanistan: National progress report on the implementation of the Hyogo Framework for Action (2013-2015): <http://preventionweb.net/go/42575>

- Pakistan: Statement made at the Third UN World Conference on Disaster Risk Reduction (WCDDR) <http://preventionweb.net/go/44042> (external video link)
- Pakistan: National progress report on the implementation of the Hyogo Framework for Action (2013-2015): <http://preventionweb.net/go/42312>
- Pakistan: Local progress reports on the implementation of the Hyogo Framework for Action (2013-2015): <http://bit.ly/1Mq4eMe>
- Pakistan: National disaster risk reduction (DRR) policy: <http://preventionweb.net/go/32321>

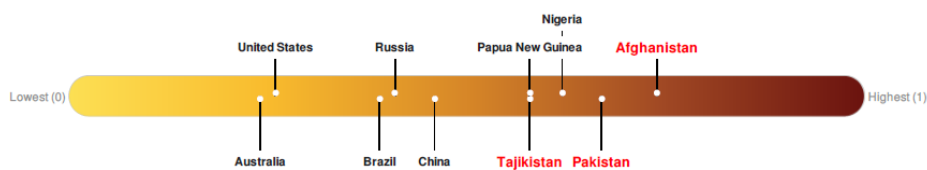
### 4.3. International Recovery Platform (IRP)

The International Recovery Platform (IRP) is a thematic platform of the International Strategy for Disaster Reduction (ISDR) system. UNISDR supports and leads the secretariat of the International Recovery Platform, a network of agencies engaged<sup>14</sup> in ensuring integration of DRR into recovery and reconstruction: Build Back Better. The key role of IRP is to identify gaps and constraints experienced in post disaster recovery and to serve as a catalyst for the development of tools, resources, and capacity for resilient recovery. IRP aims to be an international source of knowledge on good recovery practice. The IRP provides guidance notes on how to integrate disaster risk reduction in recovery. View all IRP guidance notes at: <http://bit.ly/1MVRd7F>  
In addition, there is also a guide to integrate disaster risk reduction (DRR) in the Post-Disaster Needs Assessment (PDNA): <http://bit.ly/1zldh1Z>

### 4.4. Pacific Disaster Center (PDC)

PDC uses information, science, and technology to enable effective evidence-based decision making and to promote disaster risk reduction (DRR) concepts and strategies. The Center provides multi-hazard warning and decision support tools to facilitate informed decision making and critical information sharing, supporting appropriate and effective actions.

The PDG Area Brief report includes the Lack of Resilience Index, which represents the combination of susceptibility to impact and the relative inability to absorb, respond to, and recover from negative impacts that do occur over the short term. It indicates that Afghanistan ranks 1 out of 165 on the Lack of Resilience index with a score of 0.74, and Pakistan ranks 9 out of 165 with a score of 0.67. View 2015 Area Brief report at: <http://bit.ly/1k7eGLW>



<sup>14</sup> The International Recovery Platform is a partnership between the Asian Development Bank (ADB), Asian Disaster Reduction Center (ADRC), Cabinet Office Japan, Hyogo Prefectural Government Japan, International, Federation of Red Cross and Red Crescent Societies (IFRC), International Labour Organization (ILO), Ministry of Foreign Affairs Italy, Swiss Agency for Development and Cooperation (SDC), The World Bank, United Nations Centre for Regional Development (UNCRD), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Human Settlements Programme (UN-HABITAT), United Nations Office for Disaster Risk Reduction (UNISDR), United Nations Office for Project Services (UNOPS), United Nations Office for the Coordination of Humanitarian Affairs (UN/OCHA), and World Health Organization