

Nepal's Earthquake-2015: Its Impact on Various Sectors

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Abstract

Natural Calamities are unavoidable events that lead to chaos, crisis and disaster. Nepal faced a disastrous earthquake; 7.8 Richter scale. Being repeatedly analyzed about the vulnerability of earthquake in Nepal, the country seems not prepared enough for the event. The unpreparedness had taken many lives including tangible and intangible values of society and cultural aesthetics. The earthquake has hindered the overall economic, social and environmental aspect. Tourism was one of the major economic backbones for the nation which with the event has barred at least for sometimes. According to the survey conducted on the Tourism Employment by Ministry of Culture, Tourism and Civil Aviation (MoCTCA) indicates that approximately 138,148 persons were engaged in the tourism sector (National Planning Commission, 2015b: 118). The pre-earthquake data, indicates that 487,500 jobs which would be 3.5 percent of the total employment in Nepal. The number of jobs was expected to rise by 4 percent in 2015 and 3 percent per annum to 681,000 jobs (World Travel and Trade Council, 2015). According to World Health Organization, the epicenter of the earthquake was Barpakh, Gorkha and the magnitude of the earthquake has catastrophic effect on 14 district of Nepal, including Gorkha, Dhading, Rasuwa, Sindhupalchok, Kavre, Nuwakot, Dolakha, Kathmandu, Lalitpur, Bhaktapur, Ramechap, Sindhuli, Okhaldhunga and Makwanpur districts out of which Dolakha and Sindhupalchok are the most severely affected districts by the second earthquake on 13 May, 2015 World Health Organization (WHO, 2015).

Keywords: Crisis, Disaster, Disaster Risk Reduction, Rehabilitation.

Background

Nepal, of its nature, is a country prone to disasters (Chhetri, 2001; Malla et al., 2015). Carter (1992) defined disaster as; 'an event; natural or man-made, sudden or progressive, which impacts with such severity that the affected community has to respond by taking exceptional measures'. The World Health Organization (2002) has defined disaster as

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“... an occurrence disrupting the normal conditions of existence and causing a level of suffering that exceeds the capacity of adjustment of the affected community” (WHO/EHA, 2002: 3). Definition of disaster varies in level- national level to individual level that leads to long-term problems for rescue, restoration and rehabilitation as in the case of Nepal facing crisis after the tremendous shocks of earthquakes. Nepal is the 11th most earthquake-prone country in the world in terms of seismic vulnerability (United Nations Development Program, 2004; National Planning Commission, 2015a; Nepal Disaster Management Reference Handbook, 2015) and 30th ranked in terms of flood.

Nepal is a landlocked country located between two giant countries India and China. The country has more than 28.5 million of population and 1, 47,181 square kilometers of area; Nepal occupies 0.3 and 0.03 percentage of land area of Asia and the world respectively (Central Bureau of Statistics, 2010). According to Dahal and Gnawali (2000) “geographically Nepal lies in 80°, 04’ and 88°, 12’ east longitudes and between 26°, 22’ and 30°, 27’ north latitude.” On the basis of geographical position of Nepal, Shrestha (2000: 3) mentioned that “its shape is roughly rectangular with the length of 885 Kilometers east-west and its breadth varies from 145 to 243 kilometers north-south, the mean width of which is 193 kilometers.” Nepal’s landscape composed of hills and steep 8 world’s tallest mountains including Mt. Everest (8848 m) (Kunwar, 2015; Nepal Tourism Board, 2015) with breathtaking landscapes, mountains, lakes and national parks combined with fragile geographical formations and heavy monsoon rainfall resulting landslide, debris flows and floods (United Nations Office for Disaster Risk Reduction, 2015).

The country is situated upon the Alpine-Himalayan or Alpine belt, where 17 percent of world’s largest earthquake occurs as the Indian plate pushes upwards into the Eurasian plate, causing great stress to build up in the Earth’s crust, only to be relieved through earthquakes. Similarly, Kathmandu Valley, the capital city of Nepal would suffer enormous damages in the event of catastrophic earthquake as it lies on the location of an ancient lake bed, since the floor consists of loose soil sediments (Nepal Disaster Management Reference Handbook, 2015). Nepal experiences a variety of natural hazards that occur throughout the year. People live with hazards, accepting them as a part of life (UNDP, 2009). The high level of hazards easily translates into risk because of the vulnerabilities that have been built up and are being built (National Society for Earthquake Technology, 2008). A devastating earthquake struck in Nepal on 25 April 2015 followed by several strong earthquakes and another massive earthquake on May 12, 2015 (European Commission, 2015; Nepal Disaster Management Reference Handbook, 2015). A magnitude of 7.8 earthquake occurred on Saturday April 25, 2015 at 11:56 local time (ca. 6.11 UTC) in Nepal as recorded by National Seismological Center (NSC). The epicenter of earthquake was located approximately 77 km northwest of Kathmandu, Nepal’s Capital City, and 73 Km east of Pokhara, another major population center in Barpak, Gorkha (WHO, 2015; Incorporated Research Institutions for Seismology (IRIS), 2015 & UNISDR, 2015).

There are different records on the casualties in different published reports. According to WHO (2015), "...the earthquake resulted in landslides, further deaths, injuries and damages to buildings". The government has recorded 8,219 deaths and over 17,866 people injured, 4.2 million people have been affected and 2.8 million people had been displaced. However, Nepal Disaster Management Reference Handbook (2015) published a data which shows 8,669 deaths, 16,808 injured, and thousands unaccounted for. 70 aftershocks and the deadliest avalanche occur in Mount Everest, killing 20 hikers. Similarly International Center for Integrated Mountain Development (2015) estimated the death report more than 8,000 people and more than 22,000 were injured.

The vulnerability risk in Nepal compared to developed countries like Chile or Japan due to earthquake is higher because of poor quality of construction of buildings and infrastructure due to prevalence of non-engineered construction (>90%), poor quality control of materials and construction processes is the main cause of structural vulnerability. Similarly Lack of awareness programs, and concentration of knowledge and skills are another reasons for vulnerability. Nepalese trends of settlements and public services are often seen in hazardous area and marginal lands because of lack of proper land use assessment or even can be said of not implementing the land use policies developed by the Government of Nepal which could be another source of vulnerabilities (NSET, 2008). The overall earthquake losses are presented in the table below since 1970-2003:

Table 1: Direct Losses due to Earthquake (1970-2003)

Item	Number	Value of Direct Losses (NRs)
Total number of events	22	
Death	876	
Injury	6,840	
Affected	4,539	
Buildings Destroyed	33,706	8,200,838,000
Buildings Damaged	55,234	1,309,606,450
Livestock Death	2,215	11,075,000
Total loss at present value (NRs)	9,566,605,507	
Average loss per year due to earthquake	289,897,136	

Source: NSET (2008: 4)

Historically, Nepal has suffered many destructive earthquakes- 1934 Great Nepal Bihar Earthquake 8.4 Richter scale was especially damaging causing 8,519 human casualties, damaged 126,355 homes, and destroyed 80,893 buildings. However, the deadliest earthquake in Nepal's recorded history occurred in 1255, when a 7.7 earthquake shock the center of the Kathmandu valley, killing the King Abahya Malla

along with one-third of the population of Kathmandu, approximately 30,000 people (NDMR Handbook, 2015). Even from the past experiences of disasters, the government policies on nation building are not implemented strong enough to overcome the disasters. Nepal should have learned lesson where, the nation had gone through severe disaster and had tremendously impacted the social, cultural and economical sector overall. The below tables shows the losses due to earthquake and other disasters in different period of time and the Nation Policy which compares between the GDP and development expenditure in Nepal since 1987 (CBS, 2000; Ministry of Home Affairs quoted in Disaster Review, 2005; in NSET 2008: 4).

Table 2: Major Earthquakes in Nepal in the last 100 years

Year	Location	Magnitude	Damages	Cost
1934	Nepal	8.4	<ul style="list-style-type: none"> • 10,700 Dead • 126,355 houses damaged • 80,893 buildings destroyed 	NRs. 205,500 (Kathmandu Valley only)
1980	Baitadi Bajhang Darchula	6.5	<ul style="list-style-type: none"> • 125 dead • 248 seriously injured • 13,414 buildings damaged • 11,604 buildings destroyed 	Unknown
1988	Eastern Development Region Some parts	6.8	<ul style="list-style-type: none"> • 721 dead • 6,553 injured • 65,432 buildings damaged • 1,566 livestock dead • 22 districts of eastern Nepal affected 	5 billion rupees
1993	Central Region Mid-Western Region	Unknown	<ul style="list-style-type: none"> • 1 Dead • 11 Injured • 72 houses Destroyed • 451 Buildings Damaged 	48.39 million rupees
1994	Mid-Western region	Unknown	<ul style="list-style-type: none"> • 12 Injured • 623 Affected • 84 Houses Destroyed • 287 buildings Damaged 	16.35 Million Rupees
1997	Central Region Far-Western Region	Unknown	<ul style="list-style-type: none"> • 1 injured • 1,489 Affected • 196 Houses Destroyed • 60 Buildings Damaged 	51.29 Million Rupees
2015	Northwest of Kathmandu	7.8	As of May 25, 2015: <ul style="list-style-type: none"> • 8,669 Deaths • 16,808 Injured • 288,793 Buildings Damaged • 254,114 Buildings Partially Damaged 	TBD (To be declared)

Source: Nepal Disaster Management Reference handbook (2015)

Table 3: Disaster Losses Compared to GDP and Development Expenditure in Nepal

Disaster Year	Major Hazard Event In that Year	Deaths	Direct Disaster Loss by all hazard events in that year, MNR (Price in Same Year)	GDP MNR (for the Disaster year)	Loss as % GDP	Average Annual GDP Growth %	Development Expenditure (MNR)
1987	(Floods)	881	2,005	76,906	2.6	4.6	
1988	(Earthquake)	1584	6,099	89,269	6.83		
1989	(Fire, Flood, Epidemics)	1716	4,172	103,416	4.0		
1991	(No specific major hazard event, "Normal Year?")	971	43	149,485	0.03		91/92=13,979
1993	(Floods)	1524	5,189	199,216	2.6	4.8	93/94=21,188
1996	(Floods)	895	1,579	280,513	0.56		96/97=26,542

Source: Ministry of Home Affairs quoted in Disaster Review, 2005 and Central Bureau of Statistics, 2000; in NSET, 2008: 4.

Natural Disaster Preparedness in Nepal

In 2003, PATA published a crisis awareness document called "Crisis, it Won't Happen to Us! Expect the unexpected. Be prepared (Beirman, 2011). Many researches were undertaken and reports being published on the risk of natural disaster in Nepal. National level planning and strategies on this behalf shows the concern for reducing the impacts. Nepal faces high magnitudes and intensities of a magnitude of natural hazards such as flood, landslide, earthquake, fire, cyclonic winds and hailstorms, cloudburst, drought, famine, and epidemics. Industrial accidents, explosion, traffic accidents and hazardous events associated with poisonous substances are also recorded (NSET, 2008). Earthquake is a major potential hazard to reckon with- the country is located on an active seismic belt and the exponential urbanization trend over the past decade with general disregard of earthquake-resistant measures in building construction is the cause of ever-increasing earthquake risk.

According to (NSET, 2008), different government departments have made significant efforts in the past in mapping the natural hazards of Nepal. A variety of geologic, hydrologic, climatic hazard maps has been prepared at various scales by the respective technical departments of the government and other agencies. Many of these maps are available in the public domain.

In 1997, an earthquake risk assessment and scenario development was conducted as part of the Kathmandu Valley Earthquake Risk management Project (KVERMP) and implemented by National Society for Earthquake Technology-Nepal (NSET). After the assessment, it was estimated that if Nepal experienced an earthquake of the magnitude as the 1934 Great Bihar Earthquake, Kathmandu Valley would suffer the following: 40,000 deaths, 95,000 injured, 600,000-900,000 homeless, and 60% of all the buildings damaged. Kathmandu Valley experiences a major earthquake every 70-80 years, so the 2015 Nepal Earthquake was expected (Nepal Disaster Management Reference Handbook, 2015; & CEDIM, 2015).

The National Strategy for Disaster Risk Management is a commitment of the Government of Nepal to reflect the paradigm shift towards Protection as part of the fulfillment of the basic right of the people. It also expresses the desire of the people and government of Nepal to reduce disaster risks to an acceptable level for safeguarding their lives, properties, development investments, cultural heritages as well as to mitigate the adverse impact to the environment from natural hazards thereby contributing to the aspirations of alleviating poverty and improving the quality of life of all Nepalese. The vision of the National Strategy for Disaster Risk management is “Disaster-resilient Nepal”, and the mission is to guide, encourage, and ensure development and implementation of organized approached for managing and minimizing disaster risks and for effective preparedness at all levels. According to NSET (2008: 23), the mission of the National Strategy for Disaster Risk Management includes:

- Institutional Development
- Enhancing policy and legal environment for participation by all the stakeholders adhering to the principles of **Centralized Policy, decentralized implementation.**
- Creating enabling environment to encourage DRR (Disaster Risk Reduction) and implementation at central level to household levels, and
- Ensuring integration of disaster risk reduction strategies into sectoral development and poverty alleviation plans.

Besides vision and mission on disaster risk management, Nepal had expressed her commitments to Disaster Risk Reduction (DRR) by signing the Hyogo Framework of Action 2005-2015 (HFA). The HFA framework provides logical steps for achieving DRR; Knowledge of the risk faced, especially from a participatory process with the participation of the people and communities at risk, is the starting point. HFA is the consensus strategy

adopted by 168 member countries in the UN World Conference on Disaster Reduction in January 2005 in Kobe for spearheading the task of disaster risk reduction globally. According to NSET (2008: 27), the framework of action was developed based on the gap analysis in the national and global efforts in DRR whose goals are:

- Integration of disaster risk reduction into sustainable development policies and planning,
- Development and strengthening of institutions, mechanisms and capacities to build resilience to hazards, and
- Systematic incorporation of risk reduction approaches into the implementation of emergency preparedness, response and recovery program which recommends five priorities for Action, namely,
 - a) HFA Priority Action 1: Ensure that disaster risk reduction (DRR) is a national and a local priority with a strong institutional basis for implementation.
 - b) HFA Priority Action 2: Identify, access and monitor disaster risks and enhance early warning.
 - c) HFA Priority Action 3: Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
 - d) HFA Priority Action 4: Reduce the underlying risk factors.
 - e) HFA Priority Action 5: Strengthen Disaster Preparedness for effective response.

As per Malla et al. (2015: 4) Nepal is worst prepared now than it was in 1934. Considering the scenario that the consequences of the future earthquake in Nepal in mind, on March 31, 2010, the three major professional organizations of the Nepali Diaspora in USA, ASNEngr, ANMF, and CAN-USA, joined hands for providing guidelines and suggesting appropriate action plans for mitigating damage through earthquake. The committee came up with three major areas of preparedness to be considered are pre, during and post-earthquake.

Kunwar (2012) in his article entitled “Safety and Security in Tourism: A Study of Crisis and Disaster Management” mentioned about the provisions of disaster management published in Nepal Disaster Report 2009 by Ministry of Home Affairs. The provisions for disaster management are:

- Disaster Risk Reduction (Pre-prepare and awareness)
- Legislation and Institution (Post-disaster Management)

1. Pre-earthquake preparedness

According to Malla et al. (2015: 5), to avoid or at least minimize the human casualties and property and infrastructure damage and loss, it is of utmost importance that the general population should be fully prepared and the infrastructure should be

built for any impending earthquake disaster. Therefore, pre-earthquake preparedness includes following:

- Public awareness programs;
- Regular earthquake drills in schools, colleges, public buildings, and hospitals;
- Training of personnel in different sectors of public and private institutions and construction industries;
- The necessity of strict adherence to building codes and their implementation;
- Quality construction practices;
- Upgrading the existing building codes; and
- Preparation of new codes and standards for infrastructure design.

2. During earthquake preparedness

“Avoid panic and stay calm” is the most important thing during an earthquake. Detailed procedures should be followed when inside or outside a house or inside a vehicle and following the systematic step-by-step procedures practiced during drills. Turning on a battery-operated radio and listening to the siren; taking immediate shelter under a sturdy desk, table, or doorway; staying away from windows and using the “duck, cover, and hold” rule are some of the immediate steps to be followed until the shaking stops. Adequate ambulance services, readily available emergency medical supplies, first responders, paramedics, and expert medical health teams, coordination with local and international Red Cross societies, and unobstructed access to the pre-assigned open grounds and facilities for temporary health camps are a few of the main components required for a successful response during an earthquake. An effective intercommunication network maintained to fully operate during the inevitable panic is the key to an operational success during an earthquake. The Nepal Government’s Emergency Operation Center and privately owned emergency communication links, including those owned by nongovernmental organizations (NGOs) and international non-governmental organizations (INGOs) within the country, are effectively mobilized to disseminate information locally, nationally, and globally (Malla et al., 2015).

3. Post-Earthquake Preparedness

According to Thapa (2009; in Kunwar, 2012), there are Natural Calamity Relief Act, 1982 and Local Self Governance Act 1999 for post-disaster management. However, the biggest challenge during post-earthquake preparations lies in coordinating and mobilizing the nationally and internationally available resources properly and effectively, in a chaotic situation, with the possibility of aftershocks. Qualified professionals must evaluate and red-tag unsafe buildings and infrastructure in the affected areas essentially immediately. Effective use of the sophisticated heavy machinery and equipment necessary for rescue, immediate repair of essential facilities and the

public transportation system, fast erection of temporary shelters at different locations, and maintenance of pedestrians' safety and mobility will have to be coordinated under difficult conditions. Moreover, due to its geographical location, the Kathmandu valley has additional constraints to receiving immediate assistance from outside the valley and from neighboring countries (Malla et al., 2015).

Impact of Earthquake in Nepal

The earthquake has affected environment, socio-culture, and economy of Nepal. Nepal as mentioned by Chhetri (2001) and UNDP (2009) that the country is prone to disaster, the country faced many disasters in different period of times. The earthquake and associated landslides have had a major socioeconomic impact in Nepal; almost all aspects of life have been affected and the lives and livelihoods of 8 million people have directly threatened (NPC, 2015a & ICIMOD, 2015). The paper published by ICIMOD (2015) reveals a heartbreaking report on the disaster scenario. There were some 500,000 houses destroyed and 300,000 partially damaged which has displaced more than 100,000 people and a million lost their employment. Similarly, CEDIM Report (2015: 2) published the paper where NEOC and Nepal Police estimated 300,000 buildings were destroyed and 250,000 damaged. Many landslides blocked roads resulting infrastructure damage as well as 500 deaths and Avalanches destroys camps and results in 20 deaths in Mt. Everest region (CEDIM, 2015).

The earthquake has affected different socioeconomic sector of country overall, the event was catastrophic and had destroyed or damaged houses and animal shelters, livestock, crops, seeds, and food stores, as well as social infrastructures such as school, health centers, banks, business centers, microenterprises, roads and trails. Therefore, the result is much stressful and disturbing as it has severely affected health, threatened food security, and disrupted production, employment, business, trade, and services (ICIMOD, 2015).

International Labor Organization has estimated that 150 million work days were lost in 31 districts in the first few weeks following the earthquake (ICIMOD, 2015: 13). The earthquake created many social problems and caused psychological trauma. Many people were compelled to live outside in tents and open sky for many days to months including children and girls putting them in an especially vulnerable position. There have been reports on trafficking of women and children. Hence, the scenario led to mental and physical pressure which had directly increased stress levels and estimated to have long-term health impacts. Vulnerable groups, such as women, children, and the disabled, the elderly and ethnic minorities remain higher risks to be excluded if their specific needs are not addressed as priorities to restore and enhance their livelihood assets, capabilities and opportunities (ICIMOD 2015: 14).

Education Sector

According to the NPC (2015b: 57) report, the total value of the damages and losses to the education is estimated to NPR 31,317.9 million (US\$ 313.2 million). More than 80 percent of the damages and losses were in the 14 most-affected districts, with the damages amounting to NPR 22,375.1 million (US\$ 223.8 million) and losses being NPR 2,629.1 million (US\$ 26.3 million).

Health Sector

According to PDNA, a total of 446 public health facilities were completely destroyed including five hospitals, 12 primary health care centers, 147 Health Posts (HPs) and 12 others as well as 16 health facilities were completely destroyed. The largest number of completely destroyed health facilities was in Sindhupalchok, Nuwakot and Gorkha Districts. The damage status was reported by the District Health Offices and was validated by the assessment team's first visit in the field. Considering the health risk of epidemic and disease outbreak, Health Emergency Operation Center (HEOC) established a hospital-based post-earthquake surveillance system to cover public and private hospitals in the 14 highly affected districts. The total value of disaster effects (damages and losses) is estimated to be NPR 7.54 billion, 85.1 percent of which constitutes damages and 14.9 percent amount to losses. The public sector accounted for 81.5 percent of the disaster effects. The effect on the health spectrum was quite diverse, leaving many long-term problems and impacting on the development goals (NPC, 2015b).

Cultural Heritage Sector

Many government, religious and private building were destroyed (CEDIM, 2015). Major monuments in Kathmandu's Seven World Heritage Monument Zones were severely damaged and many collapsed completely. Similarly, in more than 20 districts, thousands of private residents built on traditional lines, historic public buildings, ancient and recently built temples and monasteries, were affected by the disaster, 25 percent of which were destroyed completely. According to the report of PDNA published in NPC (2015a), the total estimated damages to tangible heritage is NPR 16.9 billion (US\$ 169 million) affecting 2,900 structures with a cultural, historical and religious heritage value. The earthquake damaged a large number of cultural and heritage sites in Nepal. Outside Kathmandu, a number of such sites and structures survived the earthquake and its aftershocks, including Boudhanath and Swayambhunath. Within Kathmandu in Durbar Square, a large number of iconic sites and structures were destroyed, though a few survived, including Taleju and Jagannath temples, the Kumari house and the Pashupatinath Temple. The list of destroyed cultural and historic structures been reported to have been completely destroyed include Kasthamandap, Maju Dega and Narayan Vishnu Temples, Trailokya Mohan, Krishna (Chasin Dega), Dharahara (Bhimsen Tower), Hari Shankar, Jagan Narayan, Fesidega Temple, and Vatsala Durga Temple (UNSDIR, 2015).

Food Security and Nutrition Sector

As per PDNA team published on NPC (2015b) under-nutrition has been a longstanding problem in Nepal. A post-earthquake assessment found that food consumption practices have worsened in the affected districts compared with the levels recorded in the pre-earthquake assessment data.

Economic Sector

Nepal has a net capital stock around \$ 36 billion USD with approximately 28.8 million inhabitants. In terms of capital and GDP it is extremely poor nation with less than \$ 700 (USD) GDP per capita in 2015. The Kathmandu area has a GDP slightly higher than the rest in Nepal (Center for Disaster Management/CEDIM, 2015). According to the World Bank, the Kathmandu Valley has a population of 2.5 million people and a population density of about 13,000 people per square kilometers (UNISDR, 2015). The Post Disaster Needs Assessment (PDNA) Report of the National Planning Commission (NPC) reveals that the earthquake has already pushed a further 700,000 people below the poverty line (NPC, 2015a).

Productive Sector

According to Food and Agriculture Organization of United Nations (UNFAO) (2015) confirms that the agricultural livelihoods in the six districts including, Dhading, Dolakha, Gorkha, Nuwakot, Rasuwa and Sindhupalchok suffered particularly high levels of damage, and therefore support to livelihoods in these districts should be prioritized in agricultural recovery program. The contribution of GDP has remained almost unchanged since 2001 at around 35%.

The PDNA report shows nearly 1,000 hectares of land have been rendered useless due to landslides and land slips; these lands will most likely not be recovered. The estimates of the value of losses and damages in the agriculture sector amount to about NPR 28,366 million. Approximately NPR 16,405 million damages reported on the data compiled from the 14 affected districts. Similarly, the commerce and industry sectors too are affected severely and are one of the major sectors play a key role in the economy. Based on the PDNA report, the 14 affected districts reported the damages for this sector is NPR 15,611 million (US\$ 16,873 million) (NPC, 2015a). The PDNA Team has published a summary of disaster effect after earthquake where the social, cultural and economical sectors and sub-sectors losses are presented. The table shows the losses in the social, environmental and economic sectors of Nepal and it requires millions of USD to recover the losses. Hence, the table below shows the losses due to earthquake and the estimated capital requirement for recovery and re-establishment.

Table 4: Disaster Effects and Capital needs in Nepal after earthquake

	Disaster Effects (NPR million)			Distribution of Disaster Effects (NPR million)		Losses in Personal Income (NPR Million)
	Damages	Losses	Total	Private	Public	
Social Sectors	355,028	53,597	408,625	363,248	45,377	-
Housing and Human Settlements	303,632	46,908	350,540	350,540	-	-
Health	6,422	1,122	7,544	1,394	6,150	-
Education	28,064	3,254	31,318	2,365	28,953	-
Cultural Heritage	16,910	2,313	19,223	8,948	10,274	-
Productive Sectors	58,074	120,046	178,121	158,079	20,043	17,124
Agriculture	16,405	11,962	28,366	25,813	2,553	4,603
Irrigation	383	-	383	-	383	-
Commerce	9,015	7,938	16,953	16,953	-	2,667
Industry	8,394	10,877	19,271	19,271	-	3,654
Tourism	18,863	63,379	81,242	75,105	6,137	6,200
Finance	5,015	26,890	31,905	20,937	10,969	-
Infrastructure Sectors	52,460	14,323	66,783	17,281	49,502	-
Electricity	17,807	3,435	21,242	15,569	5,673	-
Communications	3,610	5,085	8,695	1,712	6,983	-
Community Infrastructure	3,349	-	3,349	-	3,349	-
Transport	17,188	4,930	22,118	-	22,118	-
Water and Sanitation	10,506	873	11,379	-	11,379	-
Cross-Cutting Issues	51,872	1,061	52,933	1,755	51,178	-
Governance	18,757	-	18,757	-	18,575	-
Disaster Risk Reduction	155	-	155	-	155	-
Environment and Forestry	32,960	1,061	34,021	1,755	32,267	-
Total	517,434	189,027	706,461	540,362	166,100	17,124
Total	\$5,174	\$1,890	\$7,065	\$5,404	\$1,661	\$171

SECTOR	Total Needs (NPR million)	Total Needs (US\$ million)	Share of Needs by Sector
Social Sectors	407,747	4,077	60.9%
Housing	327,762	3,278	49.0%
Health	14,690	147	2.2%
Nutrition	5,036	50	0.8%
Education	39,706	397	5.9%
Cultural Heritage	20,553	206	3.1%
Productive Sectors	115,618	1,156	17.3%
Agriculture	15,561	156	2.3%
Irrigation	467	5	0.1%
Commerce	20,051	201	3.0%
Industry	7,357	74	1.1%
Tourism	38,710	387	5.8%
Finance	33,472	335	5.0%
Infrastructure Sectors	74,266	743	11.1%
Electricity	18,586	186	2.8%
Communications	4,939	49	0.7%
Community Infrastructure	4,450	45	0.7%
Transport	28,185	282	4.2%
Water and Sanitation	18,106	181	2.7%
Cross-Cutting Issues	71,873	719	10.7%
Governance	18,442	184	2.8%
Disaster Risk Reduction	8,204	82	1.2%
Environment and Forestry	25,197	252	3.8%
Employment and Livelihoods	12,547	125	1.9%
Social Protection	6,398	64	1.0%
Gender and Social Inclusion	1,086	11	0.2%
Total	669,505	6,695	

Source: NPC (2015a: XIII-XIX)

Crisis in Tourism Sector

Tourism is traditionally associated with leisure and vacation, and tourists look for rejuvenation and relaxation in a holiday. There have been crises in history, such as war and terrorism, which interrupted the growth of tourism, but the study of crisis management in tourism began only recently (Tse, 2006). Just over ten years ago, Barton (1994) was the first person to argue for using a crisis management plan as a management tool in the hospitality industry (Kunwar, 2012: 73).

It is unusual to think of tourism and disasters in the same light. Safety and security issues have assumed a position of critical importance for the tourism industry globally (PATA, 2011) However, tourism communities are especially vulnerable to disaster occurrence due to their economic dependence on visitors and the need to maintain positive image of attractiveness and safety for continued success. The past decade has witnessed various natural disasters in tourism industry like Hurricane Hugo, Hurricane Andrew, as well as numerous tornadoes in the Southeastern coast of United States (Sönmez & Backman, 1992). While a natural disaster can impede the flow of tourism as tourists can easily choose safer destinations, but the effects of negative occurrences on the local tourism industry and tourist destination can be profound (Sönmez et al., 1999).

The earthquake in Nepal actually has created a crisis situation in every aspect in the nation overall, therefore, tourism industry cannot be separable. Therefore, community leaders, local governments, and the tourism industries need to handle the situation efficiently to reduce loss of life and property as possible, the situation is very likely to evolve into a full blown crisis, which can lead to severe short-term and long-term economic ramifications for a tourism sectors (Sönmez & Backman, 1992). According to Sönmez et al. (1994: 30), tourism crisis is:

“...any occurrence which can threaten the normal operations and conduct of tourism related businesses; damage a tourist destination’s overall reputation for safety, attractiveness, and comfort by negatively affecting visitors’ perceptions of that destination; and, in turn, cause downturn in the local travel and tourism economy, and interrupt the continuity of business operations for the local travel and tourism industry, by the reduction in tourist arrivals and expenditures.”

The definition of crisis management is simplified by World Tourism Organization which is put forward by Luhrman (2003), that tourism crisis is “... any unexpected event that affects traveler confidence in a destination and interferes with the ability to continue operating normally”. In the same manner, defining a tourism crisis varies as (Beirman, 2011 In PATA) defines tourism crisis as “...an event or set of circumstances which can severely compromise or damage the marketability and reputation of a tourism business or an entire tourism destination region.”

Similarly, Nepal a heaven destination for adventure seeker and culture lover faced disastrous earthquake which created a chaos and crisis situation. The earthquake centered outside Kathmandu, the capital, was the worst to hit Nepal in over 80 years. The disastrous earthquake has destroyed swaths of the oldest neighborhoods of Kathmandu as well as severely damaged three UNESCO World Heritage Sites of Nepal (IRIS, 2015). The earthquake has severely affected the tourism industry and its sub-sectors in Nepal. Most of the reports are claiming that the effects of earthquake is limited to 14 districts however, the overall impact goes beyond these districts. The physical impact may not be seen in the touristic destinations like Chitwan, Pokhara, Annapurna Base Camp, but these destinations are suffering with the downfall of tourists (NPC, 2015). 35 out of 75 districts in the country are affected.

The Ministry of Health and Population has identified 14 districts severely affected, including Gorkha, Dhading, Rasuwa, Sindhupalchok, Kavre, Nuwakot, Dolakha, Kathmandu, Lalitpur, Bhaktapur, Ramechap, Sindhuli, Okhaldhunga and Makwanpur districts out of which Dolakha and Sindhupalchok are the most severely affected districts by the second earthquake on 13 May, 2015 (WHO, 2015).

The negative repercussions of disaster are likely to translate into a reduced number of tourist arrivals over the next few years significantly, reduction in tourist spending per day US\$43 to US\$35 (NPC, 2015), which will significantly affect the revenue generation of the nation as well as the local people directly and indirectly involved in this industry. It is also estimated the impact of earthquake in tourism industry will be reduced to 40 percent on an average. Therefore, the effects on the tourism sector as per NPC (2015: 29) are as follows:

- About NPR 16 billion worth of hotel properties were fully or partially damaged in the affected areas.
- Domestic airline operators reported total monthly income losses to the tune of NPR 400 million for the month following earthquake.
- Tourist accommodations of different categories were either fully or partially damaged in the Langtang, Gorkha-Manaslu, Khumbu, Charikot, Kalinchok, Jiri, Dhading and the Rolwaling area. A few hotels in the Kathmandu Valley (including Nagarkot) were damaged extensively, while a majority of hotels developed minor cracks.
- A portion of key tourism monuments and heritage sites turned to rubble.
- With respect to tourism infrastructure, about 150 Km of trekking trails were significantly damaged. Another 200 km require maintenance and repair since access to rural areas is impeded.
- Tourist numbers are expected to decline by about 90 percent between May and July 2015.

According to the survey conducted on the tourism employment by Ministry of Culture, tourism and Civil Aviation (MoCTCA) indicates that approximately 138,148 persons were engaged in the tourism sector. The pre-earthquake data, indicates that 487,500 jobs which would be 3.5 percent of the total employment in Nepal. The number of jobs was expected to rise by 4 percent in 2015 and 3 percent per annum to 681,000 jobs (WTTC, 2015). The total impact of the earthquake on the tourism sector alone is estimated as NPR 81.24 billion (USD 8.2 million), which is the highest among all the productive sectors of which indirect loss (mostly revenue loss) is 77% (NPC, 2015a).

More than 50% of existing private infrastructure was lost (hotels, homestays, travel/trekking agencies), while the destruction of major buildings at heritage sites also represents a significant loss to public infrastructure. Several UNESCO World Heritage Sites and famous trekking routes were extensively damaged or destroyed, including temples and monasteries that are flagship destinations in Kathmandu, Lalitpur, and Bhaktapur, tourism infrastructure such as hotels, resorts, restaurants, and shops, and diverse tourism-related enterprises (IRIS, 2015).

Some areas famous for trekking and adventure tourism, such as Manaslu and Langtang have been completely destroyed, and the local people have been forced to relocate. The cultures and settlements of certain ethnic groups have been primary attractions for many tourists, especially for those studying local traditions and cultures. After the earthquake, many of these villages need to be resettled in new areas, during which time it must be ensured that the unique cultural identity of these communities is preserved (ICIMOD, 2015).

In addition, the post-disaster exposure of Nepal in the international media has almost completely destroyed the image of the country as a safe destination, resulting in a dramatic decrease in the number of tourists. In the months following to earthquake some hotels registered an occupation rate of less than 5%, and many bookings have been cancelled for the current and coming seasons. The tangible losses are accompanied by the long-term intangible loss of tourist confidence and interest; indirect and long-term losses are expected to be high in the tourism sector. Some 55,000 tourists usually arrive in Nepal in May and June (MoCTA 2014, 2015); in 2015 this number has dropped to close to zero. For example, Nepal's protected areas are well known for adventure tourism, with about 400,000 tourists visiting during 2012/2013. More than 40% of total tourists during this time visited the four protected areas (Annapurna Conservation Area, Sagarmatha National Park, Langtang National Park, Manaslu Conservation Area) located in earthquake-affected districts (ICIMOD, 2015).

Table 5: Tourism Damages and Losses due to earthquake

Subsector	Disaster Effects (NPR million)			Share of Disaster Effects	
	Damage	Loss	Total	Private	Public
Hotels and others	16,295	-	16,295	16,295	-
Home stays	1,720	495	1,720	1,720	-
Eco-lodges	415	-	415	415	-
Trekking Trails	426	5,711	6,137	-	6,137
Tour operators	7	4,294	4,931	4,931	-
Tourism revenues	-	47,013	47,013	17,013	-
Air Transport Revenues	-	4,720	4,720	4,720	-
Restaurant Revenues	-	11	11	11	-
Total	18,863	62,379	81,242	75,105	6,137

Source: NPC (2015a: 29)

Post-Disaster and Crisis Management

A ten step process developed by Beirman (2011; in PATA, 2011) with an intention of successful tourism recovery program is not merely restoring or getting back to where things were before the crisis event but to build back better. The improved infrastructure, marketable destination and business will have less impact in future even if the earthquake event takes place again in Nepal. Similarly, Kunwar (2015) elaborated the steps focusing on the context of Nepal's recovery from the crisis with an intention of successful tourism recovery program as well as managing the destination even better as well as more marketable and improved infrastructure to withstand the similar events in the future resulting less destruction.

Step 1: Prime Messages

Step 2: Setting out the facts

Step 3: Complementary Alliances with Principals

Step 4: Restoring Confidence in Source Markets

Step 5: Alliance Marketing Models to emulate

Step 6: Protecting Profitability during Marketing Recovery

Step 7: Re-imaging the Business and the Destination

Step 8: Incentives with Attract Tourists

Step 9: Publicize the Positives

Step 10: Reporting and Monitoring Progress

Beirman (2011) highlights on the PATA guidebook about allies at home and abroad during crisis and recovery:

- National, State, Provincial and Regional tourism offices
- Regional Tourism Authorities.
- PATA, APEC, IATA, World Travel and Tourism Council.
- Travel Industry Associations
- UN World Tourism Organization
- UN Tourism Emergency Response Network
- Travel Industry Media
- Local police, rescue, medical and fire fighting authorities
- National, Provincial/State Emergency Management Agencies
- Foreign Ministries

The Pacific Asia Travel Association (2003) puts forward the Four 'R' concept of crisis management (Tse, 2006; Beirman, 2011), representing four distinct phases dealing with a crisis. The 'Four Rs' are a guide to prepare and protect an organization or destination. The 'Four Rs' are:

Table 6: The elaborated form of 'Four Rs' put forwarded in PATA (2011);

1. Reduction	1.1	Crisis Awareness
	1.2	Political Awareness
	1.3	Standard Operation Procedures
2. Readiness	2.1	Crisis Management Plan
	2.2	Tourism Planning
	2.3	Health and Safety Measures
3. Response	3.1	Emergency Response Procedures
	3.2	Investigation
	3.3	Family Assistance
	3.4	Communication
4. Recovery	4.1	Business Continuity Plan
	4.2	Human Resources
	4.3	Debriefing

Source: PATA (2011)

Table 7: Best Practices from the post-disaster recovery experiences

Disaster	Post-disaster recovery strategy/programme	Factors contributing to success	Key Challenges
Northern Pakistan, 2005: earthquake	<p>Livelihood Rehabilitation Strategy: Consisting of subsistence cash grants, livelihood cash grants and micro-credit (for revival of small business)</p> <p>The livelihood support cash grant by the Government of Pakistan was one of the world's largest post-disaster cash grant based recovery initiatives, disbursing grants of USD 300 per family to 267,802 families.</p>	<ul style="list-style-type: none"> • Integration of all livelihood initiatives under the national strategy, while at the same time seeking to be informed by bottom-up perspective in the form of community livelihood restoration plans. • Strict beneficiary selection criteria for livelihood grants • Context-specific customization (e.g., grants in the form of goods and services instead of cash to take account of the history of loan recovery) 	<ul style="list-style-type: none"> • Power relations at VDC level (potential for favoritism) • Leakages (faulty targeting in implementation) • Underfunding
Aceh, Indonesia, 2004: earthquake and tsunami	<p>Cash for Work Programme (by Mercy Crops): Implemented in 60 tsunami-affected communities, with an average of 10,905 participants a month and a mean monthly disbursement of USD 650,517 for 7 months.</p> <p>In post-tsunami Aceh, Cash for Work played an important role in the revitalization of household economies and longer-term economy recovery.</p>	<ul style="list-style-type: none"> • Decision-making power remains with individuals and households, who are employed to make their own spending choices • Timely phasing out: shift in programme focus from cash for work to output based labor payments (OBLPs) after seven months • Transparency in implementation • Community perception of psychological benefits failure) 	<ul style="list-style-type: none"> • Logistics and security were the main concerns • Problem with ghost worker • Quick scale up requires strong management capabilities and uninterrupted supply of tools, materials, and skilled labour

Disaster	Post-disaster recovery strategy/programme	Factors contributing to success	Key Challenges
Tamil Nadu, India and Pidie, Indonesia, 2004: earthquake and tsunami	Micro-entrepreneurship creation and development by NGOs	<ul style="list-style-type: none"> • Prior mobilization of communities in the form of self-help groups helped in making this work 	<ul style="list-style-type: none"> • Inadequacy of local markets and market-linked infrastructure
Gujarat, India (Kachch district), 2001: earthquake	Community/owner driven in-situ housing recovery plan: Purpose was to address structural vulnerability Project was successful in terms of high occupancy; the provision of extensive training to masons, artisans, engineers in the design and construction of multi-hazard reconstruction; and achieving a shift in construction practices in region.	<ul style="list-style-type: none"> • Technical knowledge transfer to community • Compensation disbursement linked to phases of housing reconstruction 	<ul style="list-style-type: none"> • Non-institutionalization of the knowledge transfer to community • Cost implications for poor due to change in construction practices • Underfunding • New sources of vulnerability introduced (e.g., use of asbestos sheets)
Nicaragua, 1998: hurricane	'Picking Winners': Employed selective recovery investments (e.g., in the coffee industry), which later (in 2006) shifted to a more broad-based and pro-poor food security programme (including the provision of livestock and agriculture inputs)	<ul style="list-style-type: none"> • The success of cooperation sector (in organized commerce) highlights the importance of organizational capacity as a precondition for benefiting from recovery investments. Capacities, especially those related to social capital, are more important than capitalization. 	<ul style="list-style-type: none"> • Developing livelihood-social protection synergies • Ensuring equity in access to externally-supported social protection

Source: ICIMOD (2015: 24)

In the process of crisis management, Kunwar (2010: 317; Kunwar, 2012: 74) suggested some activities that the destination should exercise for damage control at the time of the negative event. This includes such activities as:

- Monitoring and managing media coverage-ensuring that all reports present a balanced and accurate picture;
- Conducting background briefings for journalists, key tourism players (especially in the source countries from which tourists come), tour operators, and travel agents;
- Limiting harm to tourists already on the location;
- Restricting damage to tourism infrastructure and showing tourism services operating normally;
- Seeking assurances from source governments that they will support a destination's attempts to control the problems and the image damage resulting.

Kotler et al. (1998; in Kunwar, 2012) recommended four critical elements in crisis management in this context which could be applied to a destination. The critical elements recommended by Kotler et al. are:

- The destination should appoint a spokesperson to handle the media;
- The spokesperson should gather the facts and stick to them in reporting: (the authors also recommend that the spokesperson should say: 'I don't know at this time' - rather than no comment');
- If the destination uses a particular PR agency, contact them immediately; and
- Notify the press and keep them informed-they will find out anyway! (Kunwar, 2012: 74-75)

According to Nepal MOHA (Ministry of Home Affairs, 2015) To handle post-earthquake disaster, Central Natural Disaster Relief Committee (CNDRC) meeting was held on 25 April, 2015 just two hours after the major hit of earthquake as mandated by disaster Relief Act 1982 and recommended to Government of Nepal to declare emergency for 1 month to highly affected districts and the cabinet declared emergency to 14 districts: Gorkha, Sindhupalchok, Dhading, Kavre, Dolakha, Nuwakot, Ramechhap, Sindhuli, Rasuwa, Kathmandu, Lalitpur, Bhaktapur, Makwanpur and Okhaldhunga. Response Coordination Center was established after the decision made in meeting for acceleration to Search and Rescue (SAR) operation, Central Command Post, coordinate between government and international organizations for relief support and appealed to International Communities for their assistance. MOHA also appealed to National, International Organizations, donors and local communities to contribute in response activities. As per the information of Nepal MOHA (Ministry of Home Affairs, 2015), different activities and tasks performed for post-earthquake crisis management were:

26 April 2015: Activities and Task Performed

1. Helicopters of Nepal Army, Private Sectors and India mobilized for SAR operation in highly affected districts.
2. 16 shelter camps established in Kathmandu for the Internally Displaced Persons (IDPs).
3. MOHA appealed not to generate any unauthentic rumors to public

Losses recorded: Total death: 2430 (Ktm Valley-1152 & outside-1278) Injured-5936.

27 April 2015: Activities and Task Performed

1. MOHA appealed to functionalize all the activities to provide basic services and constructive support from all sectors to access market, clean water and sanitation, and creating healthy environment

28 April 2015: Activities and Task Performed

1. Injured were treated in health institutions.
2. Helicopters mobilized for relief package
3. NRs. 263 million released to affected districts for the relief support.

Losses recorded: Total death: 4680 & injured-9230. 1672 houses fully and 2597 houses were partially damaged.

29 April 2015: Activities and Task Performed

1. MOHA established information desk for disseminating and publishing information on response and relief status at the interval of 4 hrs each day.

1 May 2015: Activities and Task Performed

1. Search and Rescue (SAR) operation
2. Initial assessment and relief distribution
3. 132427 security personals have been mobilized for SAR operation
4. MOHA released total of 640 million NRs to affected districts.
5. Local organizations and Communities continue the relief collection and distribution.
6. MOHA urged such concerned organization to coordinate and contact with local administration for effective response
7. Bangladesh, Algeria and India provided 23.6 MT of relief items including medical services in the affected areas.
8. India, Russia, Thailand, Pakistan, USA, Malaysia, Singapore, China, Turkey, Israel, Netherlands, Belgium, Spain, Canada, France and UK continued SAR operation.

2 May 2015: Activities and Task Performed

1. SAR operation;
2. Assessment and relief distribution;
3. Helicopters used in affected areas to supply relief package and rescue operation;
4. According to MOHA, total of: 7812 Quintal of rice, 310 Quintal sugar, 277 Quintal salt, 94442 carton noodles, 28945 carton biscuit, 3249 Quintal bitten rice, 3600 Sac lentil, 47801 Tent, 18900 Tablets water purifying tablet, 2520 Soaps distributed in affected districts.
5. Total of 1.35 billion NRs released to affected districts for the relief support.

Losses Recorded: Total death reached to 7040 (including foreigners- 54) and injured- 14100

4 May 2015: Task and Activities Performed

1. Search and Rescue operation,
2. Assessment and relief distribution have been continuing.
3. Helicopters used in Earthquake affected areas of various districts to supply relief package and rescue operation.
4. Total of 131565 security personals (Nepal Army-65016, Nepal Police-41776, Armed Police Force-24775) have been mobilized for search and rescue operation.
5. Relief support from various countries and organization is continuous
6. Total of 1.79 billion NRs released to affected districts for the relief support.
7. As per the record of MOHA, total of: 98191 Quintal of rice, 690 Quintal sugar, 573 Quintal salt, 182034 carton noodles, 57775 carton biscuit, Water-15798 case, Bitten Rice-3249 Quintal, lentil-45 Quintal, Dalmot-90 Sac, Tent-159134, Blanket-4523, water purifying tablet-213171, hygiene kits-2670, Soap-8520 distributed in affected districts.
8. Relief support from India, Bangladesh, Myanmar, Pakistan, China, Thailand, Sri Lanka, Indonesia, Azerbaijan, Korea, Algeria, Oman, Switzerland, Singapore, Germany, Japan and including other countries reached to distribute relief items: Rice-1271 Quintal, Sugar-61Q, Salt-68 Q, Bitten rice-1580 Q, noodles-8900 cartoon, Dryfood-400 cartoon, Water-45904 cartoon, Others-11756 set, Tent- 114735, Tarpaulin-34861, Blanket-149840, Other-9499.

Losses Recorded: Total death reached to 7366 (including foreigners-57) and injured-14371 (Including foreigners-51).

7 May 2015: Activities and Task Performed

1. Search and Rescue operation, assessment and relief distribution has been continue from government, NGOs and private sectors. For this, Helicopters from Nepal Army, India, China and America have been used in Earthquake affected areas of various districts to supply relief package and rescue operation
2. Total of 131557 security personals (Nepal Army-65017, Nepal Police-41776, Armed Police Force-23764) have been mobilized for search and rescue operation.
3. 2.43 billion NRs released to affected districts for the relief support. Monitoring of the relief distribution from the monitoring team is continuous in the affected districts.
4. Relief assistance from various countries and organization is continuous from India, Bangladesh, Myanmar, Pakistan, China, Thailand, Sri Lanka, Indonesia, Azerbaijan, Korea, Algeria, Oman, Switzerland, Singapore, Germany, Japan, Bahrain, Bhutan, Canada, Netherlands, Poland and including other countries reached to: Rice-2915 Quintal, Sugar-292 Q, Salt-96 Q, Bitten Rice-1885Q, Noodles-12716 cartoon, Biscuits-19608 cartons, dry food-1921 cartoon, water-41647 cartoon, other-23161 set; Tent-118348, Tarpaulin- 195058, Blanket-170754 , other-11396. As per the record of MOHA, total of Rice-105234 Quintal, Sugar-719 Q, Salt-851.5 Q, Noodles- 210623 carton, -Biscuit-75559 carton , Water- 17798 Case, Bitten Rice-4895 Q, Lentils-145 Q, Dry Food-2525 Carton; Tent-266818, Solar Light-3528, Blanket-325703, cloths-21 Sac, Soap- 56226, water purifying tablet-213172 tablet, hygiene kits-2670 including kitchen utensils distributed in affected districts.

Losses Recorded: Total death reached to 7802 (including foreigners-57) and injured-15911 (Including foreigners-52).

8 May 2015: Activities and Task Performed

1. The Home Ministry issued a statement on 8 May following news from Kathmandu, Lalitpur and Bhaktapur that some landlords were increasing house rent after in the earthquake of 25 April 2015.
2. Complaints could be recorded by calling Nepal Police at 100 and call cente-1234 or the Armed Police Force-1114.
3. The government has also directed to District Administration Offices to take stern action against those house owners inside Kathmandu Valley who increase the house rent taking undue advantage in the aftermath of the earthquake.

9 May 2015: Activities and Task Performed

1. As per the decision of Government of Nepal on 8 May 2015, The Government clarify the notice in order to dismantle the houses that were not completely damaged but not appropriate to live by the devastating EQ on 25 April 2015.

10 May 2015: Activities and Task Performed

1. Search and Rescue operation, assessment and relief distribution has been continue from government, NGOs and private sectors, Helicopters, Nepal Army, Nepal Police, Armed Police Force and Civil servants were mobilized.
2. Relief assistance from various countries and organization is continuous.
3. 2.84 billion NRs released to affected districts for the relief support.
4. The demand of Tent/Tarpaulin is high from the affected districts, India provided 229298 and other country provided- 340221 (China, Thailand, Pakistan, Indonesia, Japan, Korea, and Ministry of Urban Development).
5. This Tent/Tarpaulin was provided to districts as: Sindhupalchowk-38728, Rasuwa-10524, Dhading-14217, Kavre-28410, Nuwakot-20210, Sindhuli-22440, Okhaldhunga-12024, Ramechhap-26956, Gorkha-29098, Dolakha-31553, Makwanpur-13998, Kathmandu-43567, Lalitpur-22841, Bhaktapur-21071 and Lamjung-4584.
6. Local organizations and NRCs supported Tents in other districts as well.
7. Ministry of Home Affairs requested to all organizations to coordinate and contact with concerned DDRCs in order to minimize gaps and optimum utilization of the resources.

Losses Recorded: Total death reached to 8020, Injured-16033 and missing-375. According to initial assessment report (MOHA, 2015), total of 416359 houses were damaged (fully damage – 202157, partially damage-214202). Among which, Full damage of physical infrastructure (including Government Buildings, Temples, Educational and Health Institutions and others)-1661, partial-11332; Damage of private houses: full-200546, partial-202870.

Conclusion

Crisis Management is a critical function (Coombs, 2007) and should be handled properly. As Kunwar (2012: 74) suggested activities that the destinations should undertake during the negative event. Despite of being one of the most earthquake prone countries in the world, Nepal seems less prepared for the event. Government of Nepal, however, in different period of time has signed and committed different pacts, treaty and agreements between other countries and organizations globally with an intention to reduce the risk of disaster- (DRR- Disaster Risk Reduction). Nepal faced a disastrous earthquake; 7.8 Richter scale which destroyed some 500,000 houses

destroyed and 300,000 partially damaged displacing more than 100,000 people and a million lost their employment. The government has recorded 8,219 deaths and over 17,866 people injured, 4.2 million people have been affected and 2.8 million people had been displaced (Nepal Disaster Management Reference Handbook, 2015). Health, Education, Economy, Cultural Heritages, Food and Nutrition, Tourism and other productive sectors are damaged due to earthquake and are mostly affected on the 14 districts of Nepal, including Gorkha, Dhading, Rasuwa, Sindhupalchok, Kavre, Nuwakot, Dolakha, Kathmandu, Lalitpur, Bhaktapur, Ramechhap, Sindhuli, Okhaldhunga and Makwanpur (National Planning Commission, 2015b).

Aftermath the earthquake, the total impact on the tourism sector alone is estimated as NPR 81.24 billion (USD 8.2 million). More than 50% of existing private infrastructure was lost (hotels, home stays, travel/trekking agencies), while the destruction of major buildings at heritage sites also represents a significant loss to public infrastructure. Several UNESCO World Heritage Sites and famous trekking routes were extensively damaged or destroyed, including temples and monasteries that are flagship destinations in Kathmandu, Lalitpur, and Bhaktapur, tourism infrastructure such as hotels, resorts, restaurants, and shops, and diverse tourism-related enterprises (IRIS, 2015). Many International organizations are helping Nepal to cope the crisis situation aftermath the event. They are basically concentrated in the sectors of health and sanitation, rehabilitation, renovation and rebuilding, as well as economic upgrade of the nation.

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