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Humanitarian Emergencies (I)

The June editions of NTS-Alert discuss the issue of humanitarian emergencies reflecting on the recent disasters that took place in Asia. This edition of NTS-Alert will first take a look at the debate about the different frameworks/approaches to humanitarian emergencies. It will then examine how emergencies unfold and what the causes are by looking at the cases of several major natural disasters in Asia.

Introduction: Conceptual frameworks -Defining approaches to Humanitarian Emergencies

Humanitarian emergencies relate to disaster situation generated by both man made and naturemade causes in which people are dependant to humanitarian assistance or protection that comes from sources external to their society. The end of the Cold War era has marked a major focus on emergencies caused by man made armed conflicts. The term "Complex Humanitarian Emergencies" (CHE) is coined to narrow down the discussion of humanitarian emergencies to the specific cases of armed conflict and to differentiate the strategy of response from that of natural disasters. A number of academic literature

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and policy documents seem to place a strong emphasis on finding a well-defined analytical framework for CHE.

Without any intention to discount the importance of CHE, this edition of alert is trying to point out that an equal emphasis needs to be placed to analyses and policies concerning other types of humanitarian emergencies. These emergencies relate to a number of non-traditional security issues such as natural disasters, climate change, and pandemics outbreak. The United Nations (UN) even recognizes the importance of climaterelated disasters that have taken place more frequently. In 2007, 14 of the natural disasters in the world are extreme-weather related.

At one end, the discussion of CHEs is viewed from the perspective of state security. Although it acknowledges issues such as spread of infectious diseases, malnutrition, famine, plight of refugees and internally displaced persons as a result of violent conflicts, CHEs highlight the discussion over power and political instability. While on the other end, the other type of humanitarian emergencies can be viewed more closely from the perspective of human security. The term "humanitarian" in itself refers to the main aim of providing relief and rehabilitation for affected people. Essentially, attention is paid to how



natural and man made disasters are affecting the security of the people.

On a more general note, a situation should be called as an emergency "if and only if society's built-in response mechanism are significantly overtaken by the impact effects, causing serious malfunctioning in the rest of the society." It is when exogenous and external emergency assistance is needed. Consequently, "what defines

an emergency is not the negative effect of the disaster (earthquake, war, etc) in themselves, but the availability of response mechanism and the need and request for assistance." Humanitarian emergency is a state where the existing social, political, economy structures paralyzed or collapse, and no longer able to sustain the impacts of a disaster.

The conventional approach of what a complex

Complex Humanitarian Emergencies

The concept of Complex Humanitarian Emergencies (CHE) was introduced in early 1990s to refer to man-made humanitarian emergencies "characterized by political instability, armed conflict, large population displacement, food shortages, social disruption and collapse of public health structure". This concept has been of major interest to the international organizations and also medical communities. They expect that a well-focused analytical framework on CHE will provide better understanding of the causes, in order to deliver an effective humanitarian response'. Moreover, this concept has also evolved around the controversy of humanitarian intervention.

Below are several definitions of Complex Humanitarian Emergencies:

- The United Nations Department of Humanitarian Affairs defines CHE as "a humanitarian crisis in a country, region or society where there is total or considerable breakdown of authority resulting from internal or external conflict and which requires an international response that goes beyond the mandate or capacity of any single and/or ongoing UN country program".
- J.M Albala-Bertrand (2000) defines CHE as "a purposeful and *unlikely* neutral response, mostly intended to counteract the worse effects of the massive human destitution that derive from an overt political phenomenon, which take the form of a violent, entrenched and long-lasting factionalist conflict or imposition with ultimate institutional aims".
- E.W Nafziger (1996) defines CHE as "man-made crises, in which a large number of people die and suffer from war, physical violence, disease, hunger or displacement".
- Melkas (1996) defines CHE as "a disaster resulting from a long term destructive socio-politic-economic process –often exacerbated by cultural and/or historical factors that gradually increases in intensity and typically leads to deaths due to direct violence, starvation, diseases and/or to involuntary displacement of people...this incorporates three important issues (i) the complexity of underlying factor, (ii) the process behind disasters, and (iii) the complexity of the characteristics of emergencies, and the difficulties in their identification and measurement".

Sources

Albala-Bertrand, Jose Miguel (2000) 'What is a "Complex Humanitarian Emergencies"? An Analytical Essay' Working Paper No. 420. London: Queens Mary, University of London.

Brennan, Richard J, and Robert Nandy (2001) 'Complex Humanitarian Emergencies: A Major Global Health Challenge' *Emergency Medicine* 13

Brown, Vincent, et. al. (2008) 'Research in Complex Humanitarian Emergencies: The Medecin Sans Frontiere/ Epicentre Experience' *Policy Forum*, 5/4.

emergency entails should therefore be seen in a wider context to include situations where a state is badly affected by natural disasters, especially when the magnitude of the disaster is such that it goes beyond the capacity or capability of that particular nation to manage. The humanitarian catastrophe resulting from such disasters – large-scale death, and lethal mix of starvation and poverty – has the direct effect of causing illness, more deaths, displacement of population, disruption of food production, and destruction of infrastructure no less severe than a conflict situation.

To a lesser extent the lack of effective humanitarian emergency procedures can also discriminate against more vulnerable sections of society, such as women and children, the elderly and the disabled. According to the International Red Cross' World Disasters Report in 2007, 'the level of discrimination they face in everyday life is heightened when disaster strikes'. In addition to this, 'ethnicity, gender, language, religion, political opinions, national or social origin, economic condition are just some of the entrenched causes of discrimination that can compromise efforts to assist them'.

It should be a major concern that a failure to address other types of humanitarian emergencies, apart from CHE, has the potential to lead to other problems. In fact, many countries in Asia that are densely populated and prone to natural disasters are poorly prepared to respond to such events. When the impact of a disaster is not properly addressed, it could in turn lead to violence.

Sources

Albala-Bertrand, Jose Miguel (2000) 'Complex Emergencies versus Natural Disasters: An Analytical Comparison of Causes and Effects' *Oxford Development Studies*, 28/2.

Albala-Bertrand, Jose Miguel (2000) 'What is a "Complex Humanitarian Emergencies"? An Analytical Essay' *Working Paper No. 420.* London: Queens Mary, University of London.

UN seeks \$3.8 billion for humanitarian emergencies in 24 countries, *UN News Centre*, 10 December 2007. United Nations (1991) 'Strengthening of the coordination of humanitarian emergency assistance of

the United Nations' *the General Assembly Resolution* A/RES/46/182. NY

US Missions to the UN, *Global Humanitarian Emergencies* 1996.

US National Intelligence Council, *Global Humanitarian Emergencies: Trends and Projections*, 2001-2002

US National Intelligence Council, *Global Humanitarian Emergencies: Trends and Projections*, 1999-2000

Myanmar's Cyclone Nargis

In the case of the recent natural disaster in Myanmar, while the ruling junta has made some efforts to engage international assistance for the Cyclone Nargis victims, the degree of urgency had not been acknowledged, given the junta's initial refusal to accept foreign aid. Speaking at the recent Shangri-La Dialogue in Singapore – about a month after Cyclone Nargis, Major General Aye Myint, Deputy Minister, Ministry of Defence, Myanmar, painted a rather rosy picture of his government's efforts in ensuring that the disaster management was under control.

Extent of Damage by Cyclone Nargis

- 77,738 people confirmed dead
- 55,917 people missing
- 19,359 people injured
- Loss in public-owned properties approx US \$3.05 billion
- Loss in privately-owned properties approx. US \$7.62 billion
- A total of approx US \$10.67 billion.

Source

Presentation by Major General Aye Myint, Deputy Minister, Ministry of Defence, Myanmar, Restoring Peace in Complex Emergencies, The 7th IISS Asian Security Summit, Shangri-La Dialogue, 1 June 2008



Despite this, Myanmar still came under fierce criticism for their lack of willingness to engage the international community. U.S. Defence Secretary Robert Gates discussed the crisis at length during his speech at the Shangri-La Dialogue and while answering questions about U.S. Navy ships that had been diverted from the Cobra Gold exercise with Thailand to provide assistance to Myanmar. According to Gates, the Myanmar's ruling government, "at a cost of tens of thousands of lives," hesitated to allow U.S. help. This lack of swift transfer of aid was also reflected in a recent OCHA Situation Report (No. 29). It noted that as of 9 June, only 41% of the appeal made by the Myanmar Cyclone Flash Appeal has been received. The organization notes that US\$201 million is needed by the UN agencies and NGOs to meet the most urgent needs in Myanmar. This seems to suggest that even with ASEAN support to facilitate the transfer of aid to Myanmar, it is far from sufficient to meet the needs of all cyclone victims.

The lack of effective humanitarian emergency procedures can also discriminate against more vulnerable sections of society, such as women and children, the elderly, the disabled and other ethnic groups. This seems to be the case in Myanmar. According to Aung Zaw, a writer for The Irrawaddy Magazine, the ruling junta had deliberately neglected the hard hit areas in the delta region, for the fact that these areas have historically been associated with Burmese rebel groups. Many of the Karen rebels' leaders have hailed from the delta and it has long been a popular recruiting ground for both the Karen National Union (KNU) and, until the 1970s, the Communist Party of Burma (CPB). The delta was also strategically important because of its proximity to Pegu Range and Arakan Range where communist and ethnic rebels had established their headquarters and armed bases.

Such a perception is reflected in some recent developments since the Cyclone hit. For instance, the Thailand-based Assistance Association for Political Prisoners-Burma (AAPP), noted that inmates of Yangon's Insein Prison were being forced to eat spoiled rice, even after the International Committee of the Red Cross

replaced "moldy, foul and inedible rice" damaged by exposure to rain. According to the group, the spoiled rice was causing intestinal problems such as diarrhoea and dysentery, as well as other symptoms, including vomiting, dizziness, rashes and stomach swelling.

Meanwhile, leading international human rights advocacy group Amnesty International (AI) claimed that the military junta has been misusing international aid and forcing cyclone victims out of emergency shelters. In a report entitled "Myanmar Briefing: Human rights concerns a month after Cyclone Nargis," AI said that the ruling State Peace and Development Council (SPDC) began evicting homeless cyclone survivors from government and unofficial relief camps after it declared an end to the rescue and relief phase of its disaster response on May 20. This follows other reports (as mentioned in the previous NTS-Alert edition) of cyclone victims being evicted from shelters to make way for referendum voting booths. Burma's military government has denied these allegations and has blamed foreign media for, what it calls, "tarnishing the image of the nation." The state's official newspaper (New Light of Myanmar) further noted that victims are being allowed to return to their homes voluntarily, but only if they have enough food, water and shelter to survive.

The situation is further complicated by the fact that as a result of the Cyclone, Myanmar' has turned from a self-sufficient rice growing nation to one that is now much more dependent on imports and aid. According to the U.N .Food and Agriculture Organization (FAO), the low-lying Irrawaddy Delta, which produces up to 60 percent of the country's crop, would see a decrease in rice production. The U.S. Department of Agriculture (USDA), estimates that rice production in Myanmar for 2008/09 would be reduced by 6 percent. In addition to this, Paul Risley, a spokesman for the World Food Programme suggested Myanmar's that households and farmers will likely require some form of food assistance through their next harvest, which could be up to a year away. The delta's five worst-affected states also produces most of fish and pork for Myanmar's 47.8 million

people, thereby putting a further strain on food resources in the country.

Vulnerability amongst women in the post-cyclone period is perhaps best illustrated by the fact that ten thousand pregnant women are among the estimated 2.4 million cyclone survivors in Myanmar and are in urgent need of proper health care. According to William A. Ryan, a spokesman for the United Nations Population Fund, more than 100 women give birth every day in the area affected by the cyclone. Even prior to the cyclone, pregnancy and childbirth were already relatively risky in Myanmar, which is one of Asia's poorest countries. The maternal mortality rate in Myanmar before the storm was 380 per 100,000 births – almost four times the rate in neighbouring Thailand and 60 times the rate in Japan. The destruction of health centers and loss of midwives have thereby only increased the risks.

The likelihood of violence/conflict erupting in Myanmar as a result of the lack of assistance given to Cyclone victims cannot be ruled out. Even so, the military junta has been rather efficient in suppressing any form of public dissent. Amnesty International has suggested that recent arrest of Burmese comedian Maung Thura, also known as Zarganar, acts as a "message of intimidation" directed at political activists. It also contradicts the junta announcement at the end of May that individual donors were free to carry out relief work.

In addition to this, reports of forced labor have begun to surface. A May 17 report on the situation from the US Campaign for Burma, an exile-run advocacy group, noted that cyclone victims in Set Su village, Bogalay township, were ordered by the authorities to construct a helicopter landing pad. Men, women and children were allegedly ordered to break rocks and level the field by soldiers. In return they received a pack of biscuits with a WFP logo on it, but no money, according to the advocacy group.

Military-run checkpoints are a common component of Myanmar military operations and in the wake of the cyclone they have blocked the few foreign aid workers and journalists in the country from accessing the worst-hit areas. All the major routes into the disaster area have checkpoints manned by security personnel, who demand identity cards from Burmese and passports from foreigners, most of whom have been turned back. All across the country checkpoints are a means for soldiers to enrich themselves by demanding bribes for passage. A villager from the area said private donors are allowed through checkpoints if they pay a bribe. For some private donors and non-governmental organizations who gained access to villages in the disaster-hit Laputta township has cost them half of their relief supplies and rice sacks.

Sources

Burma Denies Forcing Cyclone Victims from Shelters, *Voice of America News*, 8 June 2008

Myanmar Criticized at Shangri-La Dialogue, *Defense News*, 2 June 2008

Presentation by Major General Aye Myint, Deputy Minister, Ministry of Defence, Myanmar, Restoring Peace in Complex Emergencies, *The 7th IISS Asian Security Summit, Shangri-La Dialogue*, 1 June 2008 Operation Delta, The Irrawaddy Magazine, June, 2008 – Vol 16 No.6

Relief as war in Myanmar , Asia Times Online, 20 May 2008

Rights Groups Report Post-Cyclone Abuses, *The Irrawaddy*, 6 June 2008

World Disasters Report 2007: Focus on Discrimination, International Federation of the Red Cross and Red Crescent Societies.

Myanmar: Cyclone Nargis OCHA Situation Report No. 29, *United Nations Office for the Coordination of Humanitarian Affairs (OCHA)*, 9 June 2008 Myanmar Cyclone Survivors Need Food for a Year, UN Agency Says, *Bloomberg*, 9 June 2008 UN official says pregnant Myanmar cyclone victims in urgent need of care, *Associated Press*, 11 June 2008



Revisiting the 2004 Indian Ocean Tsunami

The earthquake that struck off the coast of Sumatra, Indonesia on 26 December 2004 was the most powerful the world has seen in a generation and was the worst natural event in Indonesia since the eruption of Mount Krakatoa in 1883. The earthquake generated a large tsunami that travelled rapidly throughout the Indian Ocean, striking beachfront areas in many countries with catastrophic results in Indonesia, Thailand, Sri Lanka, India and Bangladesh, as well as other Asian and East African countries, killing more than 150,000 people in the Indian Ocean region.

Over 110,000 people were killed in Indonesia alone with over 700,000 of those surviving findings themselves displaced from their homes when their houses were swept away or left in tsunami caused unimaginable The devastation and the scale of the damages to the local economy, infrastructure, and administration were unprecedented. In an instant, the livelihoods and security of hundreds of thousands of the survivors were ruined. The total estimate of damages and losses from this catastrophe in Indonesia was Rp. 41.4 trillion, or US\$4.45 billion. Of the total, 66% constitutes damages, while 34% constitutes losses in the terms of income flows lost to the economy. The damage provides both an idea of the destruction of assets in the country as well as a baseline for defining the program of reconstruction.

The sectors severely affected by the tsunami were primarily private-sector dominated assets and activities that relate directly to the personal livelihoods of the affected urban and rural communities: housing, commerce, agriculture and fisheries, and transport vehicles and services (US\$2.8 billion, or 63% of total damage and losses). The biggest public sector damages were to infrastructure, the social sectors, and government administration (US\$1.1 billion, or 25% of total damage and losses). There was also significant environmental damage to coral reefs and mangrove swamps, as well as destruction of many hectares of arable land.

Extent of Damage by 2004 Tsunami in Aceh

- Fatalities 129,775
- Missing people 36, 786
- Internally Displaced People (IDP) 192,055
- Houses needed 80,000 110,000
- Schools damaged or destroyed 2,087
- Major health facilities
- damaged/destroyed 106
- Small water sources damaged/destroyed – 10,124
- Coastal fishing boats lost 4,717
- Hectares of fish ponds destroyed 20,000
- Farmers displaced 60,000

Source

Tsunami Recovery Indicators, UNIMS and BRR December 2005 – Available from UN OCHA's ReliefWeb/World Bank, 19 March 2005

Within days since the calamity, Aceh, once offlimits to the outside world, became the centre of the world's largest ever humanitarian operation. The Aceh response to the 2004 calamity was a concerted effort from around the world and was "delivered" with incredible momentum and energy. Unlike their counterparts in Myanmar, the Indonesian government immediately recognized the magnitude of the disaster and opened Aceh up to regional and international aid workers, with very little restrictions on who should be allowed in or not.

In a press conference a year after the tsunami, Indonesian officials from the Rehabilitation and Reconstruction Agency for Aceh and Nias (BRR) conceded that the Indonesian government was tardy in formulating a response in the initial stages. The massive disruption of communication lines in the tsunami stricken region only made it more difficult for the political elites in the capital, Jakarta to get a clear picture of the extent of the disaster. This in turn, resulted in inadequate responses and allocation of resources. There was also a lack of coordination in disseminating relief donations. According to the report by BRR, while hundreds of international and local charities pledged assistance, some were ill-equipped to offer. Some donors took months to transfer promised money while inappropriate government policies caused further delays.

Although the immediate response to Aceh was far from perfect, it succeeded in its major aim – that there was no second wave of deaths from waterborne diseases. There was commitment from the aid agencies and the government, which made a concerted effort to reach the victims across Aceh. Humanitarian agencies, such as the Red Cross and Oxfam, as well as military personnel from the region such as Australia and Singapore, were quickly on the scene pumping clean water to thousands of people, establishing primary health care facilities, and providing other life-saving aid. These efforts were possible with the skills and technical expertise of many local staff and volunteers, backed up by the know-how and compassion of the world's humanitarian disaster experts.

In highlighting the vulnerability of women in post-disaster situations, Sandra Hamid from the Asia Foundation in Jakarta, noted that according to on-site reports in the wake of the tsunami, there was an increase in cases of violence against women as compared to pre-tsunami periods. Several reasons were given for the rise in the reported cases of violence. First, women became more aware of the avenues available to them to report cases of violence. This was due to the increasing awareness of human rights propagated

by international organization in Aceh. Second, the increasing number of unemployed men in Aceh, who were unable to tap on the resources available in the post-tsunami period let to a growing sense of marginalization. These frustrated men then vented their anger on their wives. This also has some historical significance as Aceh is home to one of the strongest patriarchal societies in Indonesia and is governed by Islamic law.

Such incidence of insecurity amongst women (and children) in disasters is also demonstrated in the other countries affected by the 2004 tsunami. In a study entitled 'After the Tsunami: Human Rights and Vulnerable Populations,' (cosponsored by the University of California, Berkeley's Human Rights Centre; the University of Hawaii's Globalisation Research Centre; and the East-West Centre), it was noted that the cramped living conditions in temporary housing contributed to problems as sexual violence, alcohol abuse and physical violence. Such living conditions are said to have deprived people of their dignity.

The study also made other observations. Despite the massive influx of aid, it concludes, little has changed for many survivors since the tsunami. For instance in Sri Lanka, reconstruction has proceeded at different rates depending upon political influence. In the Maldives, response to survivors may depend on the whims of a particular island chief. The researchers also discovered that decisions about relief, relocation and reconstruction aid are largely taking place without consultation with affected communities.

Sources

An ASEAN 'Coalition of Mercy' by Teofisto Guingona, *Philippine Daily Inquirer*, 17 May 2008 Indonesia – History of Aceh Reconstruction, <u>World</u> <u>Bank</u>

Indonesia Admits Mistakes In Tsunami Response, Agence France-Presse, 15 Dec 2005
Report of Workshop on Humanitarian Emergencies and Human Security: Lessons from Aceh, Consortium of Non-Traditional Security Studies in Asia, 3-4
September 2007

Tsunami Impact: Women, Children Suffer Most in Overcrowded Camps by Thalif Deen, UNITED NATIONS, 7 Jun 2005 (IPS)



China's Recent Natural Disasters

Sichuan earthquake

The previous edition of the NTS alert has exposed the earthquake that rocked China at the Sichuan Province on 12 May 2008. The 8.0 magnitude earthquake has affected eight provinces, 852 counties with a population of 348 million people. This calamity shows how the live of the people are directly affected. As of 9 June 2008, the death toll has increased to 69,142, with an additional 20,790 listed as missing. A total of 374,065 people were injured. This is a humanitarian emergency.

It is said earlier in this article that when an emergency takes place, there is a malfunction of the system in the society. The earthquake had not only taken lives but also damaged infrastructure in the area. Approximately 80% of the buildings in the quake area were estimated to have been destroyed. Beijing officially estimated 5.47 million people were left homeless, but some government officials said about twice that many may be at least temporarily homeless, awaiting repairs of their homes. The situation has been complicated by strong aftershocks. As of 9 June 2008, 11,194 aftershocks had been recorded. More than 420,000 houses collapsed in Sichuan after two fresh aftershocks hit the area on 28 May 2008.

Among the destroyed buildings are the business enterprises. The quake has caused 206.51 billion yuan in economic losses to industrial and mining enterprises. It affected over 4000 enterprises with 1,482 firms remaining closed. The quake has also disrupted power and water supply, transportation and communication system. There are 135 towns in seven counties where power supply was 109 towns of which disrupted and communication system was disrupted. There are 8,114 damaged water supply and 33,492 km damaged roads.

In line with the collapse of infrastructures, public health access was also disrupted due to the destruction of many health clinics. Thus, providing health service to the affected people was severely disrupted. The functioning hospitals were overwhelmed with the injured victims. Furthermore, hospitals faced the other problem of homeless patients refusing to leave in order to get shelter and food.

The collapse of public health system also affected the capacity of the surveillance system to detect and respond to epidemics. Disaster areas are always prone to the spread of diseases. The risk increased not only due to poor access to health service but also due to the interruption of access to safe water and sanitation facilities, population displacement with overcrowding and increased exposure to disease vectors.

In the event of natural disaster there is always a concern of food shortage, especially in the long run, due to land destruction. This in turn might lead to social unrest. In the case of Sichuan earthquake, despite the fact that more than 75,000 acres of farmland in the province were destroyed by the quake, food availability is not an issue. The government is able to control the situation. However, the potential for social unrest could arise from the problem of wide economic gap and corruption that are exposed by the disaster.

The quake revealed a wide incoming gap between the rural and the urban areas due to China's rapid urbanization. The greatest destruction of the quake hit rural areas and smaller towns and cities that are under-developed compared to the urban areas. In China, rural residents still comprise more than 60% of its 1.3 billion population. The disparity is a growing concern to the leaders of China because it may lead to social instability. Moreover, in the aftermath of the disaster the task of finding land, homes and jobs for the thousands of displaced people could be tricky for the government. Sichuan is one of China's most densely populated provinces, where farms and cities crowd against each other. Social unrest may appear in the long run if the government fails to address the problem of long term relief.

The earthquake has also exposed other fault-lines in China's social policies that added to parents'

grief over the loss of their child due to the collapse of the school buildings. Tight education budgets led some schools to impose hefty fees, forcing many lower-income parents to work long periods in wealthy cities far away from their kids. China's one-child policy exacerbated the loss. Close to 7,000 schools were destroyed in Sichuan province by the earthquake and a large number of children were killed. On the aftermath of the disaster, parents were protesting to local officials over the poor infrastructure quality of their schools that relates to the problem of corruption. This unrest over the lack of accountability of the government proved to be a sensitive issue for the authorities.

Snowstorm

Before the earthquake disaster, early this yet, there was a snowstorm disaster in China. It had seriously disrupted the transportation system, power supply, water supply, communication system and industrial production. There was huge livestock and crop loss in the country's eastern central and southern region. Although the death toll resulted from this disaster was not as high as the Sichuan's earthquake – it was 'only' around 100 people, 827,000 people needed immediate assistance and 1.62 million people were relocated. It was estimated that 354,000 homes were destroyed and 602,000 damaged.

While the Sichuan's earthquake was reported to not having severely affected the economy, the snowstorm on the other hand hit China's economy rather significantly. The economic loses were 111.1 billion yuan (\$15.3 billion). Southern China was blacked out for a week by heavy snow. The production of industries was halted. Matters were made worse due to the proximity of the disaster to the Chinese Lunar New Year. It was a time in the year where people travel to reach their families in order to celebrate New Year together. Massive crowds of travelers were stranded at airports, railway stations and bus depots in China's south, central and eastern regions in a situation of a very low temperature. Highways in Shanghai and major cities were snared in logiams.

The snowstorm had also created immense damage on China's agricultural sector in the affected areas. Statistics released at the end of January stated that nearly seven million hectares farmland in the Yangtze River area suffered a huge drop in production due to snow. Officials have warned that many could face food shortages in the future as a result of wrecked winter crops. Moreover, it posed a threat to the country's energy resources. China's hydropower system was disrupted by frozen water in the reservoirs.

It is interesting to note that although the nature of the two disasters was different and the snowstorm did not cause a major death toll compared to the Sichuan's earthquake, the impact on the lives of the people was still severe. Thus, as described in the previous actions, natural disasters generate complex emergencies – exposing the instability of state and societal structures to cope with the sudden turn of events. The emerging situations would necessarily require external assistance.

Sources

420,000 houses collapse in China aftershocks: state media, *AFP*, 28 May 2008

Amid Rubble, A Search For Blame, the Wall Street Journal, 12 June 2008

Beijing Limits Protests, the Wall Street Journal, 4 June 2008

China earthquake expose a widening wealth gap, the Wall Street Journal, 14 May 2008

China Quake Death Toll Rises to 69,142, *Xinhua*, 9 June 2008.

China Tries to Help Its Homeless, The Wall Street Journal, 21 May 2008

Flooding Engulfs Some Quake-Hit Areas in China, the Wall Street Journal, 11 June 2008

Property Issues, Floods Threaten China's Recovery From Quake, the Wall Street Journal, 28 May 2008

Quake Victims Overwhelm Hospitals, the Wall Street Journal, 28 May 2009.

World Health Organization (2008) Communicable Disease Risk Assessment and Internventions – Sichuan earthquake: the People's Republic of China.

WHO provides emergency supplies to China snowstorm, *Reliefweb*, 5 February 2008.

China Snowstorm: Death Toll Could Be Much Higher, *Chinaview*, 5 February 2008.

China Deploys Troops to Help Snowstorm Relief Effort (Update6), *Bloomberg*, 30 January 2008.

China's worst winter weather for several years, *BBC*, 3 February 2008.

