

**ABSTRACTS FOR INTERNATIONAL CONFERENCE ON THE
DEMOGRAPHY OF DISASTERS: IMPLICATIONS FOR FUTURE POLICY
ON DEVELOPMENT AND RESILIENCE**

Mohammad Jalal Abbasi-Shavazi and Meimanat Hosseini-Chavoshi
Title: Demographic Consequences of the 2003 Bam Earthquake in Iran

Iran is a seismically active country crossed by several major fault lines resulting in frequent and often destructive earthquakes. This paper aims to explore demographic consequences of the massive earthquake in Bam in 2003, where it left more than 34000 dead. Using the 2006 and 2011 censuses and data from registration resources, we investigate mortality, fertility and migration pattern changes affected by the 2003 earthquake in the district of Bam and the greater region of Kerman province. Applying the own-children method to censuses, the level and pattern of fertility during the 2000s is demonstrated to understand the extent to which fertility has been affected by the earthquake. Information from the registration data sets are also analysed to explore contemporary changes in the registered births, deaths and in/out migration flows in the years before and after the earthquake.

The results indicate that despite the huge number of mortalities Bam's population increased substantially during the year following the earthquake. The pattern of fertility follows the decline pattern of the region during 1995 to 2003, but it drops immediately in 2004, and soon recovers reaching to the level before 2003. In-migration following the Bam earthquake supports the argument that job opportunities and incentives following disasters attract people particularly 'incentive hunters' and unemployed people from other regions to the affected area. Reconstruction and resettlement of the city supports the resilience theory. Potential capabilities in Bam as well as comprehensive and strategic support from the state created new opportunities for both the native population and migrants. The findings suggest that massive destruction such as the 2003 Bam earthquake can rejuvenate demographic patterns of the affected population.

Amir Askari

Title: Psychosocial and Demographic Aspects of the Earthquake in East Azerbaijan, Iran

This study aims to prospectively analyse the effect of a major earthquake on the prevalence of psychological disorders such as acute stress disorder (ASD), anxiety, depression, mixed anxiety depression disorder (MADD), phobia, aggressive behaviour, insomnia, psychosomatic disorders and also socio-demographic aspects among residents of a rural community sample in East Azerbaijan, Iran. The sample was composed of 801 adults exposed to the earthquakes. Two months after the earthquakes, all subjects were approached with questions from a survey consisting of the measures administrated in a standard order as follows: Demographic Data Sheet, Disaster Experiences Scale (DES), General Health Questionnaire (GHQ) and Symptom Checklist 90-Revised (SCL-90-R). The results revealed that 23% in the exposed group had Acute Stress Disorder (ASD), 10% had anxiety symptoms, 7.5% depression, 4% MADD, 5% psychosomatic disorders, 10% phobia, 7% aggressive behaviour and 10% suffer from insomnia. This paper has summarized the current status of information on mental disorders caused by experiencing or witnessing a life

threatening severe earthquake. The experience of fear, helplessness, and panic during the earthquake, and the appraisal by the victims of serious psychological, social and demographical consequences after the earthquake, are positively related to the subscale scores and the total score of GHQ SCL-90-R and DES.

Yang Cheng-gang

Title: Population livelihoods in the process of rebuilding after the 5/12 Wenchuan earthquake, South West China

This paper is a part of the project we are doing about the population in the process of rebuilding after the 5/12 Wenchuan earthquake. The project research purpose is to find the impact of the earthquake on the population, to remind policymakers that the more challenging work is population rebuilding, and to resolve the population problems created by the disaster. This project includes four fields: livelihood rebuilding, population reproduction, community rebuilding, disabled people support. This paper is about livelihood rebuilding. The purpose is to evaluate the impact on the economy, especially on employment; the way to rebuild livelihoods in a sustainable way. We use the dynamic panel data model and differences in method Data based on the county (city, district) level data of Sichuan Province from 2005 to 2009. We conclude that the earthquakes' impact on GDP, distinguishes "Catastrophic destruction" and "Creative destruction". On average, the former decreases GDP by 43.5% in HADS; meanwhile, the latter increases the GDP by 19.3% in HADS; therefore, the earthquake has an overall net negative impact on GDP by 24.2% in HADS.

As to the earthquake's impact on employment, both "Catastrophic destruction" and "Creative destruction" are not significant in all three industries investigated, but in the construction industry, "Creative destruction" is significant by 12.8%, the employment elasticity in HADS reaching to 0.533, higher than other parts of Sichuan Province by 31.6%. In all three industries, GDP and employment are characterized by a significant state-dependence, whose preceding values have a significant impact on current values irrespectively. Although all findings show that post-earthquake reconstruction has achieved some success, sustainable employment and economic development in HADS are still of great concern when the reconstruction is done.

Susan Cutter

Title: Demographic Change, Hurricane Katrina, and Mississippi's Gulf Coast: Repeating Patterns from a Vulnerable Past or Fostering a More Resilient Future?

Hurricane Katrina was not the first major hurricane to hit the Mississippi coast in 2005, and will not be the last. The region's past is punctuated with large hurricanes striking the coast and people rebuilding homes and infrastructure and resuming their livelihoods—building back bigger and better after each hurricane. Hurricane Betsy (1965) and Hurricane Camille (1969) foreshadowed the cost of living so close to the water's edge in coastal Mississippi, and the human toll that hurricanes exact. But this did not stop development. And then Hurricane Katrina came.

The demographic changes along all the US hurricane coasts are profound, especially between 1970-2000 when coastal growth occurred exponentially everywhere from Texas on the Gulf Coast, to Florida, and then Florida northward along the Atlantic

Coast as far as New York and beyond. Such growth coincided with a relative inactive period of hurricanes—a pattern that has since changed. The hurricane coasts are becoming increasingly more vulnerable, with more storms and more lives and property at risk than ever before. This paper uses Hurricane Katrina (in Mississippi and New Orleans) and Hurricane Sandy (in New Jersey and New York City) to highlight some of the demographic issues influencing temporary displacements (evacuation), involuntary relocation, and resettlement after disasters. The paper argues that disaster-prone places are bound to reproduce their long-established settlement patterns, but the demographic characteristics of residents often change. What this portends for a resilient future in high hazard regions is briefly illustrated.

Cecilia De la Paz

Title: The discourse of disasters in Philippine festivals: culture, local governance, and the construction of historical memory

The paper is based on the premise that we can access the social and psychological impacts of disaster to local communities through the manner in which religious and secular festivals are performed and made sense of by various stakeholders in society. By studying festivals which are regularly threatened by their own internal dangers and potential tragedies, the study will look into the experience of the Filipino in the provinces of Pampanga, Bicol, Bulacan, and Negros Occidental and how they conflate the experience of disasters and the performance of a ritual or festival.

The frequent traumatic experience will be examined through the performativity of festivals as signifier of meaning in the history of various towns and cities in the Philippines. For example, tragedies that occurred during the religious fluvial festivals of the Lady of Peñafrancia in Bicol (1972) and Holy Cross of Wawa, Bulacan (1993) where hundreds of devotees died during the procession-turned-festival led to interpretations of how people ascribed vulnerability and disaster-readiness of their communities and local leadership against the backdrop of faith and spiritual belief. Particular interest will be given to secular festivals that were specifically created by local government units to counteract the effect of disasters on the psychological well-being of a community, looking into the message of renewal and healing, but at the same time analyse how it affects the understanding of disasters as a cultural discourse. The implication for cultural programs in local governance will be examined in which notions of resiliency, ethnic identity and historical memory are continuously negotiated by various stakeholders in society.

Tadjuddin nur Effendi, Christopher Manning, Aliza Hunt, and Suharman

Title: Community, physical and human factors in the socio-economic development of villages after the 2006 earthquake in Bantul District, Yogyakarta

The Bantul district in Indonesia has been acclaimed for both the speed and the inclusiveness of recovery from the Yogyakarta and Central Java earthquake of 2006. The impact of the quake was intense. Besides flattening one quarter of all homes and inflicting a significant death toll, the earthquake also severely damaged many small-scale businesses. Despite virtually no preparation for such a major disaster, almost all homes had been rebuilt and most businesses were well on the road to recovery within

two years. Why did Bantul pull through so quickly? Mainly based on interviews with local leaders, government and NGOs, supplemented by a rich literature on the Bantul experience, we find that successful recovery was related to an unusual interaction of factors. They include strong local and provincial leadership, an active tradition of mutual self-help (*gotong-royong*) in social, cultural and economic matters, and huge support for the recovery across the country and internationally. Facilitating factors included Bantul's location close Yogyakarta city in a larger region with an abundant supply of labour and construction materials. The timing was also fortuitous: Many national and international aid donors relocated their activities from Aceh. Finally flexibility in local institutions also played a part. While some of these factors were important for rebuilding in other national and international disaster areas around 2006, we contend that a combination such as in Bantul is rare.

Tauhid Ibne Farid

Title: Developing a culture of disaster preparedness through use of simulation exercise: the case of coastal communities in Myanmar

Effective Early Warning and related appropriate action is imperative for saving lives and property in the advent of an ensuing natural hazard event. In the Delta, where communities become remote due to the need for strong and reliable communication and transportation, a lack of proper early warning system can place them in a difficult situation. Communities also need to know what actions to take on the issuance of various levels of early warning. Based on the learning of Cyclone Nargis emergency response, through fellowship approach.* ActionAid Myanmar piloted an initiative in Labutta Township under Ayerrawaddy region of Myanmar to synchronize different stakeholders at Village and Township level to ensure simulation exercises regularly in order to develop a culture of disaster preparedness. This initiative demonstrates that the involvement of the Village Disaster Management Committee (VDMC) was crucial for the success of the simulation exercise as they are first responders to an ensuing natural hazard warning. They were given the confidence to plan and drive the process as they were able to identify and integrate their situational realities. Through this exercise, multi-stakeholder participation was encouraged and promoted throughout the process as the simulation exercise needed to have the contribution of especially the government departments, local government officials and non-government organizations. Through this process, these stakeholders could clearly visualize their role and responsibilities to the success of the village simulation exercise. This practice was derived from the process of fellowship approach which is completely community led and established the linkage between micro initiatives to macro context of development. Simulation exercise appeared as one the priority on CBDRR program for the coastal community in Myanmar which is aimed at developing a culture of disaster preparedness in coastal community in Myanmar.

**Fellowship* is central to all work of ActionAid Myanmar which aims at identifying young, potential leaders in rural communities and equipping them with the skills, knowledge and confidence needed to stimulate participatory development in their villages and engage with local authorities to ensure access to the rights of the people.

Elizabeth Frankenberg

Title: The Evolution of Well-Being in the Aftermath of a Disaster: Evidence from Aceh and North Sumatra

The 2004 Indian Ocean tsunami wreaked havoc on countries with coastlines bordering the Indian Ocean, killing an estimated 220,000 worldwide. Indonesia, where 160,000 perished, was the country hardest hit, with the damage concentrated in the provinces of Aceh and North Sumatra. Focusing on these two provinces, this paper reviews the implications of the tsunami for several dimensions of well-being in the aftermath of the tsunami, including mortality, mental health, and economic outcomes. The findings are based on an unusual data set, the Study of the Tsunami Aftermath and Recovery (STAR), which provides population-representative information on some 27,000 individuals who were interviewed 10 months before the tsunami and annually for five years after the event. Drawing on the pre-tsunami data, we consider how demographic characteristics and socioeconomic status before the event shape outcomes initially and in the five years that follow. We consider whether groups traditionally viewed as vulnerable disproportionately bear the tsunami's costs, paying special attention to vulnerabilities created by the tsunami, such as losing a parent or spouse. Additionally, the survey covers hundreds of communities located both along the coast and further inland. Degree of damage across these communities is heterogeneous, varying idiosyncratically even within small areas. Drawing on satellite imagery we classify communities according to the destructive power of the water. The degree of damage the survey communities experienced ranges from none to almost total devastation, allowing us to draw comparisons across damaged and undamaged areas.

Helen James

Title: Policy dimensions of longer-term recovery of selected disaster impacted communities: cross-cultural perspectives

Since the advent of the UN sponsored Hyogo Framework for Action (HFA) in 2005 following the 1995 Kobe Earthquake in which over 6,000 people lost their lives, nations have been asked to prioritize enhancing the resilience of disaster impacted populations in their disaster risk reduction plans. In practical terms, this often means investment of state and personal resources in more targeted preparedness, relief and mitigation policies in an attempt to reduce the financial and human costs of disasters. Rarely is there a concerted long-term policy dimension to these plans seen from the perspective of enabling disaster impacted communities to effect full recovery of their livelihoods and lifeways. Even more rarely is there a concerted focus on the social development of these communities as part of enhancing their resilience and adaptation capacities in the event of an environmentally triggered disaster. Reconstruction policies frequently focus on restoration of the physical environment – houses, roads, hospitals, bridges, schools - with little attention to restoration of the social assets, networks, and landscape which collectively elaborate the texture of human interactions. The research of Shaw and Goda (2004) after the Kobe earthquake for instance highlighted the significance survivors attach to these social assets and networks of interaction. Shaw and Goda quantified the far greater importance survivors attach to restoration of their social environment than to government initiated re-building programs. With a focus on communities, schools, youth and families (Ronan and Johnston, 2005) this paper explores the centrality of social assets in the longer term reconstruction of the lifeways of disaster impacted populations in South West China (Sichuan), the Myanmar Delta, and Tabriz (Northern Iran-Azerbaijan).

Zhou Kui

Title: Population Reconstruction in the post-disaster context: Lost-child families' willingness on fertility and associated relevant factors

The Wenchuan "5.12" Earthquake has caused huge losses to people's lives and property, and also caused great pain and misfortune to many families whose children were unfortunately killed or disabled in the disaster. To help those families to achieve implementation of the fertility willingness is the considered the whole society's bounden duty. The National Population and Family Planning Commission started the implementation of the "Fertility full service action project ". To carry out this project is an important component part of the restoration and reconstruction in post-disaster policy. The implementation of the project has a certain political meaning, but objectively, it plays an important role stabilizing the public's feeling, for promoting social stability, recovery and reconstruction. To answer post-disaster survivors urgent needs, and strive to meet the victims' fertility willingness, to help them rebuild their family and regain the hope of life, is the entire society's desire. This study focuses on the lost child families' population reconstruction in the post-Wenchuan Earthquake situation and investigates their fertility intention and the influential factors, to provide reference information for a sustainable future support and service.

To study the lost child families' fertility willingness and the relevant factors in a micro perspective, this research conducted a survey via the related governmental sectors, such as Mianyang Municipal Commission of Population and Family Planning in July, 2012. The analysis is based on the sample with size 898 using contingent valuation method (The findings will be reported after data analysis).

Sudhir Kumar

Title: ADPC's approach to risk resilient development in Asia

Development is not risk neutral as it either reduces or increases risks. Unfortunately, the choices made, intentionally or unintentionally, by government and society have contributed to growing risks. There has been little apparent progress in reducing overall levels of mortality in Asia and the Pacific through management of residual risk by implementation of highly effective early warning system. However, the direct physical losses have followed upward trend as the region has grown economically and infrastructure and assets have expanded. Climate change is reconfiguring the risk and highlights the linkages between disaster, climate change and development. ADPC's approach to risk reduction is embedded within the development framework aiming towards risk sensitive (disaster and climate) development and thus contributing to sustainable development. It aims to reduce risk through reduced vulnerability, exposure and hydro-meteorological hazards (limited intervention) through development interventions. The 'development' interventions are primarily planned and implemented through formal development instruments such as development policy, national, sectoral and local development plans, projects and M&E, hence focus is on incorporating risk reduction considerations into these instruments. These interventions are supported through technical assistance to ministries, capacity building, knowledge management and advocacy. Some early success includes the inclusion of risk reduction in the objectives of local development planning in Nepal, a

module on risk considerations in development in the planning course of Myanmar, DRR and CCA in Environmental Impact Assessment of Lao PDR and Philippines and DRR in the housing sector of Sri Lanka. The risk considerations into sectoral interventions such as livelihoods, irrigation and education are key next steps towards resilient development.

Ken Miichi

Title: Saving folk performing arts for the future: challenges of Unotori Kagura and Hiroyuki Hashimoto after the East Japan Great Earthquake in 2011

This paper analyzes efforts to save Unotori Kagura, a folk performing arts group in the Coastal Iwate, after the East Japan Great Earthquake in March 2011. This group belongs to a Shinto shrine which is mainly worshipped around the fishing area. Unotori Kagura tours around small communities for prayers and performances. After the earthquake and tsunami, these communities were severely damaged and the annual tour was in danger. Its psycho-social and religious importance was confirmed at the same time. Thus saving the tour was very meaningful for aging and dispersed communities after the disaster. Efforts to save Unotori Kagura were led and engineered by a folklorist Professor Hiroyuki Hashimoto in cooperation with various actors. He tried to make the system sustain the folk arts and their tour by bringing in outside actors and finances. This paper contextualizes his efforts socially and politically and as a policy for recovery and resilience of aging rural communities.

Xia Mingfang

Title: The disintegration and revival of families: the Great Tangshan Earthquake in a historical perspective

The Great Tangshan earthquake which occurred on July 28, 1976 was one of the major earthquake disasters in Chinese and world history, which has had enduring impacts on the society of the epicentre. Compared to the so-called “three-year natural disaster” (1959-1961) and the 2008 Wenchuan earthquake, however, the Tangshan earthquake has attracted little attention among Chinese domestic and overseas scholars, especially in the fields of social sciences and humanities. This indifference is partly caused by the Chinese government’s prolonged blocking of the news about the disaster and the restriction of the official ideology which has hampered the development of academic research on this subject. Part of the reason is that this disaster and the following reconstruction have been propagandized as a model “promoting the superiority of socialism” so that many overseas scholars are reluctant to study this event and instead willing to take the “three-year natural disaster” as a subject in order to emphasize their criticism on the ideology and political structure of the CCP. Since the Wenchuan earthquake, the Tangshan earthquake and its rescue work, to a great extent, have become a counter-example to demonstrate the development of Chinese society. Yet very few scholars have done detailed and thorough research on this event.

A decade after the Tangshan earthquake, some scholars surviving it began to apply the reviving theories and methods of Chinese sociology, combined with their personal experience and many social surveys, to study the social and economic impacts of the aftermath and the social rebuilding and problems in the area. Their research reveals some significant changes of demography, families, marriages, birth, social psychology and social conventions, and the process of the reintegration of the society in the post-earthquake Tangshan district. These works have contributed a lot to our understanding of the earthquake, but most of them are focused on this particular area and this specific earthquake and rarely explore its connection with other major previous earthquakes and disasters in Chinese history, and thus, they fail to study its impacts on population migration and behaviours in the long run. On the other hand, there has been a series of drastic social changes occurring in Chinese society. How have these changes been entangled with the Tangshan earthquake and further co-influenced the society once suffering from the disaster and how have they directed the process of the social restoration and revival? Very few scholars have tried to answer these questions.

Therefore, it is necessary to study the Tangshan earthquake in historical perspective. Based on the existing research, this paper intends to focus on the most important social unit of Chinese society—family, systematically studying the structure and changes of families during the different time periods of the pre-, within-, post-earthquake and contemporary society from various aspects, such as the migration of population, marriages, birth, child raising and funerals, and comparing the human behaviours of the Tangshan earthquake with those of the other disastrous periods in Chinese history.

Josefina Natividad

Title: Demographic Consequences of the 1991 Mt Pinatubo eruption

A combination of climate, archipelagic structure and tectonic setting makes the Philippines one of the leading countries in terms of vulnerability to natural **disasters** that includes earthquakes, typhoons, and volcanic activity. Among the most significant of the natural calamities that have hit the Philippines in the 20th century has been the 1991 eruption of Mount Pinatubo, a long dormant volcano in the central plains of Luzon. Apart from the immediate impact of the eruption in the surrounding provinces of Zambales, Tarlac and Pampanga which were covered in thick ash fall, the threat of lahars persisted through a number of years, altering the landscape and disrupting the lives of populations that lived within the volcano's vicinity. In the aftermath of this massive disaster much has been written about the short-term impact of the eruption on human lives and livelihoods, the response to the disaster by government and civil society groups and the lessons learned by all from the experience of dealing with the unexpected cataclysmic event.

Twenty-two years later, this paper examines the demographic consequences of the Mt Pinatubo eruption and consequent disruptions from lahar flows over the long term, using quantitative and qualitative methodologies. The quantitative analysis consists of secondary analysis of census data from 1980, 1990, 2000 and 2010 from the three affected provinces and one control province (Nueva Ecija) from the same region. It examines the impact of the eruption on the population growth rates and some indirect indicators of fertility and migration, among other demographic indicators. Qualitative

interviews of key informants in the most affected municipalities are conducted to provide a grounded view of the subjective meanings and personal consequences of the demographic trends at the level of individual and family lives and at the level of government response over the short and the long term.

Douglas Paton, Li-ju Jang, Li-wen Liu

Title: Long-term community recovery: lessons from earthquake and typhoon experiences in Taiwan

This paper discusses long term recovery lessons and implications for planning drawn from the experience of survivors of two large scale natural disasters; the 921 earthquake and Typhoon Morakot in Taiwan. The inclusion of two very different hazards, earthquake and typhoon, affords the opportunity to contribute an “all hazards” perspective on recovery and identify the similarities and differences that arise across hazards. The events discussed also afford opportunities to compare long term recovery associated with rebuilding and with permanent resettlement. This comparison will provide a framework to discuss how indigenous culture, religious beliefs, ethnic beliefs and social recovery processes interact with formal response and recovery mechanisms to influence long term recovery. This analysis will be used to frame the use of a strengths-based approach to facilitating recovery by capitalizing on social and cultural strengths, processes and leadership. By drawing comparison between these findings and those from recent western disasters (e.g., Christchurch earthquake), the paper will also present a cross cultural perspective and discuss its implications for shared research and learning about recovery across national borders. The paper will conclude with a discussion of the research, policy and practice implications that arose from the analysis.

Mark Pelling

Title: The Social Contract and Disaster Transformation

The idea of a social contract lies at the heart of the Western, liberal development project. It has been used to describe the balance of rights and responsibilities between citizens and the state, and as a more critical metaphorical device to criticise dominant values and structures of governance from religious conservatism to the monarchy. More recently the social contract has shifted and expanded to be used to describe power asymmetries and assumptions about human security within the family and between employer and employee. This paper examines the notion of the social contract and asks (1) if it offers any additional analytical purchase for understanding the ways that individuals and societies face risk and recover from disaster loss as part of everyday struggles in development; and (2) if the social contract is only a hopelessly Western-centric idea, or if it can add to debates on development, rights and responsibility for security in Asia. These concerns are given impetus by the recognition that both larger numbers of people and increasing economic and physical assets are at risk from disaster and the spectre of dangerous climate change. Adaptation to climate change is an opportunity to reconsider dominant development values and pathways that have themselves been preconditions for risk and disaster. The paper is interested in the extent to which the idea of the social contract offers a useful analytical lens for better understanding opportunities and constraints for transformative adaptation pre- and post-disaster.

Beverley Raphael and Penny Burns

Title: Peoples, Populations and the Human Face of Mass Catastrophies

This paper will present the key issues of All Hazard approach to disaster management across populations and communities. The strategic frameworks of Prevent, Preparedness, Response and Recovery engage and impact on diverse communities. Key to optimising outcomes is effective population level initiatives such as the Australian Government National Disaster Resilience Strategies. The Emergency Response organisations and systems and Health Protections (AHPPC) facilitate effective interventions and transitions to recovery and removal. Human impacts of grief, trauma and dislocations affect populations and individuals and responses of both communities and recovery initiatives, inform future trajectories.

Saw Saw

Title: Community-based emergency referral for maternal and child health in Nga Pu Daw Township, Middle Island, after Cyclone Nargis

A cross-sectional study was conducted in 6 villages in Nga Pu Daw Township in which Save the Children implements the JIMNCH (Joint Initiative on Maternal, Newborn and Child Health) Project after Cyclone Nargis which includes formation of Village Health Committee (VHC). This study aims to explore community-based emergency referral mechanism for maternal and child health. Document review; Focus Group Discussions with women of reproductive age; and key Informant Interviews with Basic Health Staff (BHS) and key persons from VHC and Save the Children staff were conducted. Funding for VHC has two parts—one for revolving fund and one for emergency referral which covers transportation cost. In case of emergency, almost all participants said that they went to Auxiliary Mid Wife (AMW) or Mid Wife (MW) and then they informed the VHC leader. The significant strength of this referral mechanism was strong linkage with public health services and empowerment of community. Almost all mentioned that health knowledge was improved and access to health care services was easier especially for the poor after the Cyclone Nargis. Proper referral pathway was well established and delivery with skill birth attendants was improved. However, having well-defined criteria for emergency, well functioning health systems and decision making skill of BHS were essential for the success of this referral mechanism. Sustainability depends on availability of funding, transparency and accountability for fund management and capacity of VHC. It is suggested to strengthen capacity of VHC and encourage involvement and contribution of community for emergency health fund for the long run.

Min Nwe Tun

Title: Community-based health and first aid issues of communities in the Burmese Delta cyclone affected area

The study was conducted to assess the level of health knowledge, attitude and practice of victims after the cyclone to assess the health needs of communities and standardization of health services. The target groups were communities from 13 townships affected by Nargis. The study type is descriptive observation assessing knowledge and attitude while observing practical application of services. Cluster sampling was used to get proportionate coverage. Inclusion and exclusion

criteria were set up. Structured tested questionnaires were used. Questionnaires were coded into the scale. Case definitions were formulated for diseases. SPSS version 16.0 was used for analysis. Response rate was 100%. The majority had less awareness about diseases (e.g. prevention of HIV). Weak knowledge areas are in personal hygiene, psychosocial and care and support to HIV. Misconception is seen in knowledge of transmission and prevention of diseases. The study revealed demand for accessibility of health services by communities. 70.2% still experience anxiety and nervousness. 77.2% still have flashbacks about the nightmare disaster. 45.4% reported recurring episodes of loss of appetite. 68.6% still experience insomnia and sleeping problems with flashbacks to the cyclone. 29.8% of children experience spells of crying or sadness, 33% of them showed clinging behaviours and choose to stay close to caregivers at all times. There are 10.2% of children that still refuse to play. The survey highlighted the health problems, lack of knowledge and demand for health services in these communities within the last 6 months which highlighted the need for health services. Psychosocial reinforcement is also needed to help minors.

Kien Van Nguyen

Title: Community resilience to floods: a case study of mobile kindergartens in the Mekong Delta of Vietnam

The Mekong River Delta of Vietnam is very vulnerable to flooding. In 2000, the worst flood submerged more than 800,000 houses and forced 50,000 households to be evacuated with another 500,000 needing emergency support. The 2000 flood killed 481 people of whom 335 were children. Child mortality during floods is often due to the carelessness of parents and carers, so mobile kindergartens were developed to protect children from flooding. A community resilience to natural disaster (CRND) project funded by AusAID was undertaken in Vietnam in 2005 to 2011 by CARE International in order to reduce vulnerability to flooding in the three most severely affected provinces of the Mekong Delta. This project has initiated several mobile kindergartens to provide shelter for children of poor households and communities to reduce risk of child mortality during the flood season. However, little is known of the effectiveness, opportunities and challenges of this innovation for coping with future flood events arising from climate change. The aim of this paper is to present a qualitative evaluation to assess the effectiveness, opportunities and challenges of the mobile kindergarten project in order to strengthen community resilience to natural disaster in the Mekong Delta.

Xie Yong-gang

Title: Long-term impact of natural disasters on the economy of rural households: the 6.10 major flood disaster in Shalan Town, Heilongjiang, North China

In this Paper, we chose “6.10” Major Flood Disaster in Shalan Town, Heilongjiang Province as a case study to make a long-term follow-up investigation on the socio-economic impact of the disaster based on the analysis of the variations of the long-term economic indicators data. We also discuss the time and extent of the natural disasters’ long-term impact on rural socio-economic variables such as population, land, environment, income. The research will provide a basis and reference for further

study on indirect economic losses of the disasters, and is the preparation of the post-disaster reconstruction and disaster reduction and prevention strategies.

Wawan Yulianto

Title: The role of Islamic Relief in disaster risk reduction and preparedness in Indonesia: making vulnerable communities resilient

Indonesia is a nation prone to natural disasters. As a tropical country located at the boundary of the Eurasia, Indo-Australia and Pacific plates, the archipelago is susceptible to a number of hazards. The consequences of a potential disaster depend on the scale of the hazard itself and the population density in the affected area. Pockets of geographic isolation may hinder humanitarian responses and exacerbate the impact of the disaster. Similarly if a disaster strikes in a high density area, such as the 2009 West Sumatra and West Java earthquakes, the number of casualties drastically increases.

With these considerations in mind, IR Indonesia, UN OCHA and Nahdatul Ulama conducted a preliminary study of the potential role of the mosque in disaster preparedness in West Sumatra and West Java during 2010 to 2011. This study is significant, not only in describing the role of the mosque during a disaster, but also during the recovery phase and in strengthening social cohesion. IR Indonesia also believes the role of other religious places such as churches is also important during the emergency phase as demonstrated when IR Indonesia used a church as a distribution centre prior to distributing aid items for tsunami victims in Mentawai Island, West Sumatra on 2010.

Although the role of religious places in disaster situations in Indonesia is evident, there has been no DRR program implemented using this resource. While aid assistance was mainly delivered using internationally agreed standards, this local context should also be taken into consideration. This paper investigates how IR Indonesia developed a DRR program on The Role of Religious Places in a Disaster Situation in Indonesia by using West Sumatra as a pilot. This model is in accordance with a specific objective of the IR Indonesia 2013 - 2014 program to increase resilience and reduce vulnerability in local communities and institutions through support strategies that enable them to better prepare for, mitigate and respond to natural disaster. The paper is based on field work with five mosques and one church in the most disaster-prone area of West Sumatra, where IR Indonesia is offering training on preparation, mitigation and early warning systems of disasters.

Cynthia Zayas

Title: Land is life and life is land: towards a sound policy on development and resilience for Mt Pinatubo Ayta

Human dispersal due to volcanic eruption has aggravated the quest for land tenure among the indigenous peoples of Mt. Pinatubo – the Ayta. Being semi-nomadic people, the Aytas have established village communities in a vast territorial land at the same time seasonally camp in forests for slash and burn agriculture, and hunting and gathering activities. As a result they are often targets of land grabbing miners, ranchers and cultivators from the lowland. The long struggle to regain their homeland

began during the Spanish colonization of the Philippines (mid-1600s to late 1800s) and “ended” when Mt. Pinatubo erupted thus triggering America to leave their air and naval bases on the slopes of the volcano. The only remaining lands Ayta had prior to the volcanic eruption unfortunately were covered with lahar and other debris. Land is life and life is land as a native concept connects to the issues of ancestral domain and the Indigenous Peoples Rights Act of 1997. Examining these relations will provide the opportunity for a sharper view of the effects of natural disaster on human populations. By further examining traditional social organizations, village formation as a response to volcanic eruption, future policy on development and resilience may be guided by the native ways of doing things and thus, avoiding costly human development engineering. This presentation will identify native concepts as guiding principles for future interventions.

Zhongwei Zhao and Anna Reimondos

Title: Urban-rural differences in demographic consequences of China’s 1958-1961 famine: With a particular reference to the impact of government policy and social institutions

One of the largest famines in recent human history took place in China half a century ago. This disaster lasted from 1958 to 1961 in many areas and resulted in a huge number of excess deaths. Our study, through analysing data collected by the 1982 and 1988 national retrospective fertility surveys, further examines urban-rural differences in demographic consequences of the great famine. This investigation shows that while the famine took place throughout the country, the rural population experienced a more severe demographic loss than its urban counterpart. Such urban-rural differentials were closely related to government policies and social institutions that existed both before and during the famine.