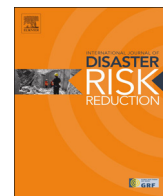




ELSEVIER

Contents lists available at ScienceDirect

International Journal of Disaster Risk Reduction

journal homepage: www.elsevier.com/locate/ijdr

Remittance and earthquake preparedness



Bikram Manandhar

61, Koba Lane, Banepa-8, Kavre, Nepal

ARTICLE INFO

Article history:

Received 10 August 2015

Received in revised form

6 December 2015

Accepted 6 December 2015

Available online 10 December 2015

Keywords:

Remittance

Earthquake

Building code

Migrant worker

Remittance dependent household

Ex ante preparedness

ABSTRACT

Nepal is located in a highly active seismic zone. This has been evident from the 7.8 magnitude tremor that was felt on April 25, 2015 with numerous aftershocks. In light of a lot of financial aid that started pouring in from numerous humanitarian organizations, the supports received from remittances have been largely forgotten. This research aims to determine the role of remittances in ex-ante disaster preparedness through the linkage between remittances and safer building practices. The primary source of information comes from two questionnaire surveys: (1) administered to migrant workers in Qatar and South Korea and (2) administered to remittance dependent and non-dependent households in Kathmandu valley and Jhapa. The study shows that there is a significant contribution of remittances in building construction practices. From the surveys conducted in Kathmandu valley and Jhapa, it is seen that remittance dependent households allocated 20% of remittance income received in last 12 months for construction practices. Similarly, migrant workers in South Korea and Qatar allocated 18.1% and 7% of remittances for construction purposes back home. In terms of ex ante preparedness, remittance dependent household have a statistically significant and positive impact on the ownership of concrete houses. In contrast, regarding use of engineer and awareness of building code for safe construction, the likelihood of the remittance contributing to better quality and strong house using engineer and awareness of building code for safe construction tends to decrease. Thus, the study shows that remittances are fueling unsafe construction practices in Nepal and increasing earthquake risk.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

Nepal located on a highly active seismic zone, where the Indian and Eurasian plates converge, hit by 7.8 magnitude earthquake on April 25 2015, and big aftershocks on April 26 and May 12 tolled 8898 of death, injured over 22,309 and 893,786 house damaged leaving millions of people displaced, mostly from 14 most affected districts including Kathmandu valley [14]. According to the Post-Disaster Need Assessment (PDNA) report prepared by the National Planning Commission (NPC), housing and human settlement sector suffered loss of Rs 350.37 billion [1]. Most of the houses damaged in the earthquake were *kachhi* (mud and stone bonded houses) and those constructed without following the building code. This earthquake is the worst disaster to hit Nepal since the 1934 earthquake, which is followed by 373 aftershocks with local magnitude ≥ 4 . Now, the disaster response as a whole has moved on to a second phase of providing temporary shelter that help people survive the monsoon. Nepal has urbanized at an alarmingly rapid and haphazard pace, becoming the fastest urbanizing country in South Asia. This haphazard urbanization, which has created unplanned cities with high population density, has

increased vulnerability to earthquake drastically. With rapid urbanization, a key issue to minimize the creation of new risk is by ensuring new buildings are constructed with earthquake safety standards incorporated. In order to reduce earthquake vulnerability, particularly in urban areas, the current approach has focused on the policy and legislative aspects of earthquake resistant structures and the institutional capacity to enforce these regulations. Nepal has established National Building Codes 2064 but effective enforcement and compliance with these standards is lacking. In particular, there are efforts, supported by the Government of Nepal and international and national organizations, aimed at strengthening capacity on the supply side of earthquake building safety. These initiatives include training engineers and masons in safety standards and developing systems within municipalities to enforce building codes, such as incorporating building codes into the building permit system. There has been less focus on the demand side of construction safe practices, whereby potential homeowners demand that the building of their houses follow earthquake resilient techniques. However, a current gap in this area is understanding the driving force behind building construction, i.e. what group(s) are building houses in Nepal.

Nepal has a long history of labor migration and during the first decade of 21st century, exporting 'Nepalese hands' to different countries to earn remittances became a major focus in Nepal. Lack

E-mail address: manandharbikram@yahoo.com

of home base employment opportunities and globalization more than 2 million Nepalese have migrated for foreign employment, leaving their family behind to the middle income countries, mostly to Malaysia or the Gulf States or South Korea. According to the Department of Labor and Employment (DoFE), there has been a steady increase in the total number of labor permits issued for foreign employment. A total of 2226,152 labor permits were issued over the six-year period, representing a staggering 137% increase between 2008/09 and 2013/14, which represents about 8% of Nepal's total population [2]. The increasing trend of labor migration for foreign employment makes remittance a significant source of income of Nepalese household which has penetration and coverage across the country, sharing 29.1% of countries GDP. In addition to these formal accounting, there is a large share of money transferred to Nepal through Hundi or other informal transactions. According to an economic survey from 2013/14 remittance inflow has attained a higher growth rate of 34.1% to Rs. 356.72 billion in the first eight months of the current fiscal year as compared to a 22.2% rise in the same period of the previous fiscal year [3]. The last decade has not only seen a significant increase in remittance flows to Nepal; there has also been a tremendous growth of urban areas, with many cities, including the Kathmandu Valley, achieving annual growth rates of 4% [4].

1.1. Remittance's role in disaster response and use in construction practices

There is substantial evidence of how remittances sent by migrants abroad contribute to ex-post responses by which households try to insure against shocks in disaster prone regions. Studies shows that remittance react adverse exogenous shocks positively and play important part in how people survive and recover [11,8,9]. Remittance usually increases in times of crisis and directly contributes to household income. For example; In Pakistan after a devastating earthquake in 2005 migrant remittances were important factors in disaster recovery and reconstruction [6]; In Bangladesh remittance is a key element in the economy's resilience to monsoon floods [5]; In Haiti remittances and other supports from migrants abroad played a more effective role in the post-disaster recovery and rehabilitation [12]. Remittance-receiving households in the Aceh region of Indonesia were found to have recovered faster from the 2004 Tsunami though because of immediate relief provided by migrant remittances [7]. Increased remittances helped to smooth household consumption and compensate for the loss of assets after an earthquake in El Salvador in 2001 [13]. In the Philippines, remittances increase when country is struck by a hurricane shows that remittances inflows from abroad replace about 60% of rainfall-induced losses of household income, consistent with an insurance motive of remittances [10,11]. In Nepal, there is a huge increment in remittance inflow during the tenth and eleventh month of FY 2014/15. Remittances aggregating about Rs. 63 billion flowed into the country during each of those months compared to an average inflow of Rs. 47 billion in the earlier months [30]. A study conducted by Centre for the Study of Labor and Mobility, immediately after the earthquake showed that "money" sent by Nepalese migrant was very important for their family members to deal with the aftermath of the earthquake. This surge has been attributed to migrant workers transferring money to rebuild their damaged houses after the quake.

There is an emerging consensus in the literature that migration and remittances are part of an overall livelihood strategy. But it is still a matter of debate, in the current literature, how remittances, particularly in developing countries, are spent [15] (Adams, 2011). However there is a general consensus across the literature that international remittances do lead to a reduction of poverty [16]. In numerous studies, it has been found that remittances have been

used to purchase food, repay loans, pay for health and education, purchase consumer goods and construct or repair houses: Afghanistan [17]; India [18]; Nepal [19]; and Pakistan [20]. With increased disposable income, households receiving remittances have demonstrated higher likelihood of investing in housing construction or expanding current accommodations. A study in Amman revealed that 44% of remittance receiving households were involved in either building a new home or extending current living arrangements [21]. Brendan [22] revealed that remittances in El Salvador were a vital source of income to fund housing improvements or land acquisition for housing compared to non-receiving remittance counterparts. In Kenya, remittances from Africa were primarily used for the construction of new houses, while those originating outside the continent were utilized for investment [23]. In Touba, remittances have also enriched recipient households as they allocate significant shares of remittances received, between 24.9% and 48.2%, into building houses and other economic investments [24]. In Bangladesh, land purchase and homebuilding accounts among the five major areas of near past use of remittance [25].

As globally, in Nepal, remittances are an important contributor to the acquisition of land and housing construction. A study conducted by Sonar, R.K [28] found that larger number of remittance receivers use their fund to purchase land or buildings in town areas over and above any other investment. Similarly, study conducted by Nepal, R [29] in low land of Nepal found that a considerable amount of remittances were used by the migrants households to buy land and to either construct or renovate house than non migrant households. According to Nepal Living Standard Survey 2011, approximately 79% of remittances in Nepal are used for daily consumption needs with another 7% utilized for loan repayments. Additional uses include acquisition of land, education, construction and establishing businesses. Bhubanesh Pant [26], state there is less risk in purchasing land and construction of houses compare to other investment. Similarly, household budget survey 2006 [27] found that remittances in urban centres were used largely to buy land and a house (52%). A study conducted by UNIFEM/NIDS 2006 found that female migrant worker spends 11.6% of saving brought back from foreign countries for construction of houses, thus remittance is fueling construction practices. However, this growth has happened in an unplanned and haphazard manner, resulting in increased level of earthquake vulnerability. In the aftermath of earthquake in April, issues related to the links between migration and disaster-preparedness as well as coping strategies adopted by the affected population have come to the fore. While the impact of an earthquake is well understood, utilizing the process of remittance to influence households' resiliency and preparedness have not been studied yet in Nepal or globally.

There is little evidence that migration and remittances can foster ex-ante preparedness that reduces the extent of damages in the event of a natural disaster through improved economic and social resilience. In disaster-prone regions or countries, ex-ante actions taken by households with migrants (community and the government) in preparation for a possible disaster can substantially reduce the loss of human life and vulnerability in the aftermath of the disaster. For example, remittances can contribute to disaster preparedness by households by making resources available for investments in house improvements so as to increase their disaster resilience. Studies indicate that households with migrants are slightly better off in terms of socio-economic indicators when compared to non-migrant. Mohapatra, Joseph and Ratha [9] found that households in Ghana and Burkina Faso that receive international remittances are more likely to have houses made of concrete as opposed to less resilient mud and brick houses.

Download English Version:

<https://daneshyari.com/en/article/7472790>

Download Persian Version:

<https://daneshyari.com/article/7472790>

[Daneshyari.com](https://daneshyari.com)