Exploring land governance in post disaster: a case of informal settlement

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SUMMARY

Land is the fundamental for the shelter, protection, livelihood and early recovery from the disasters such as earthquake, flood and landslides. The effects of these disasters have direct consequences on the social, economic, legal as well as cultural life of the people living. These consequences can lead to human, structural and financial losses. The land issues are pertinent in terms of human vulnerability because land policies, and laws in access and allocation of land determine vulnerability of human during natural hazards. In this context, land governance – refer to as policies, rules, processes in access and allocation of land- plays significant role on the pre disaster as well as post disaster settings.

The informal settlement is often considered as the outcome of weak land governance, and it becomes more pertinent in the post disaster settings. Basically, the proliferation of informal settlement as well as increased risk of vulnerability of existing informal settlements is often seen in the post disaster context. Providing adequate shelter (after disaster) remains one of the intractable problems in international humanitarian response, particularly, in urban settings with tenure complexity such as multiple occupancy, informal tenure, and tenancy. However, these also create an opportunity to incorporate informal settlement in formal settings in the context of "Build Back Better". Within this context, the focus of this paper lies in analyzing the land governance in informal settlements during reconstruction phase of post disaster. The method applied is based upon the desk research reviewing various literatures in the cases of Haiti earthquake 2010 and Gujrat earth quake 2001 in relation to land issues in post disaster particularly in informal settlements. The comparative analysis of case studies shows that land governance plays a vital role in "Building Back Better" which basically indicates towards reducing vulnerability in future disaster. The paper concludes with key lessons learnt in the context of land governance and "Building Back Better".

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1. INTRODUCTION

Land issues are very pertinent for the effectiveness of the humanitarian assistance to the disaster phases. In pre disaster as well as post disaster, land is a sensitive and contextual issue. Nevertheless, in the different phases of disaster i.e. preparedness, relief, recovery and reconstruction, a land is fundamental requirement. The scholarly literatures often indicate that that access to land, allocation of land and land tenure security is a critical factor while building resilience and reducing vulnerability in post disaster settings (Charoenkalunyuta, 2011). Usamah (2013) have shown that there is an overlap of resilience and vulnerability in the community where the strong social facts such as social capital, social cohesion and social network exist. The community like informal settlements can have coping capacity reducing vulnerability because of their social aspects. However, lack of legal access to land and tenure security plays a significant role for the social, economic as well as cultural resilience of the people in the post disaster phase in the context of reducing vulnerabilities.

Land governance plays a vital role in the post disaster humanitarian response for building resilience of vulnerable groups. Land governance is about determining and implementing sustainable land policies and establishing strong relationship between people and land (Enemark *et al.*, 2009). It is about rules, process and structure through which decisions on access to land, land rights, land use and land development are made and implemented by reconciling the conflicting interests (Deininger, Augustinus et al. 2010). It is also about the power play on access to and use of land reflected in the rules and regulations (Deininger *et al.*, 2010; Palmer *et al.*, 2009a).

Informal settlements are the outcome of weak land governance in access and allocation of land to the vulnerable or marginalized groups. When referring to informal settlements, various meanings and characteristics such as slums (Huchzermeyer and Karam, 2006), shanty towns (Lloyd, 1979), squatter settlements (Willis, 2009) come up. Slums are characterized by the lack of a basic services and durable housing conditions, insufficient living spaces and sanitation, insecure tenure, poverty and exclusion (UN-HABITAT 2005). Shanty towns are characterized by low quality buildings made out of materials (such as corrugated irons, plastic, and cardboard), lack of proper utilities facilities. Squatter settlements resemble the physical characteristic of slums and shanty towns but they lack legal land ownership documents. The lack of legal recognition of these settlements hinders the reconstruction phase of aftermath earth quake disaster (Doberstein and Stager, 2013).

"Building Back Better" concept is considered as a guide for the reconstruction phase of post disaster. This concept is limited not only in the physical improvement of the infrastructure but it is equally applicable to the social, economic and cultural resilience as well. The disaster creates opportunities to reconstruct the cities and various international donors are active to support it. However, as highlighted in (Fitzpatrick, 2007), weak land governance hinders the

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mitigation of the aftermath effects in informal settlements blocking improvement of their shelters and livelihood. In contrast, Birkmann *et al.* (2010) have also mentioned that aftermath of disaster can create windows of opportunity to change either positive or negative. Within this context it can be said that there is an opportunity in aftermath of disaster to tackles the issues of tenure security in informal settlements.

In this study, land governance elements are used to understand the impacts of earthquake post disaster on the reconstruction of informal settlements with an aim in exploring the land governance issues of informal settlements on post disaster settings.

2. METHODOLOGY

We have adopted a case study approach to explore how land governance can have impacts in reconstruction phase of aftermath disaster. The cases of Gujrat Earthquake that occurred in 2001 and the Haiti Earthquake that occurred in 2010 are considered. The cases are selected based on earthquake hazards and countries having issues of informal settlement in the pre and the post disaster settings. The land governance elements are extracted from Land Governance Assessment Framework (LGAF) (Deininger *et al.*, 2011) and the elements of building back better are extracted from "Build Back Better" framework conceptualize by (Wilkinson and Mannakkara, 2014). The units of analysis of the cases are the land governance elements. The Fig. 1 shows the methodological framework of this paper.

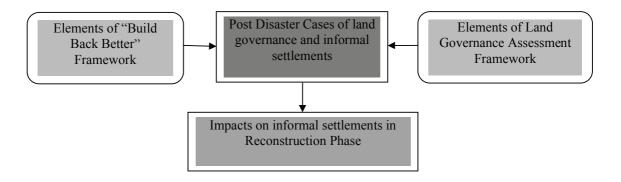


Fig. 1: Methodological Framework

The secondary sources are used to collect the cases data. The "Google Scholars" was used to search the scholar articles where as simple Google search was used to search for the reports of multinational, bilateral organizations. The key words like "Haiti Earth Quake", "Gujrat Earth Quake" together with key words like "informal settlement", "squatter settlement", and "post disaster" and "land tenure" are applied in search strategy. The types of document used for the case studies are scholarly articles, reports USAID reports, UN-Habitat, World Bank, IDMC Internal Displacement Monitoring Centre (IDMC). The following documents are used for the case studies.

- 1. For Haiti case study (Bramante and Raju, 2013), (Blake, 2015), (Myers, 2014), (Sanderson et al., 2014), (Clermont et al., 2011), (Hooper, 2015), (Frederique, 2011); (McCallin et al., 2015)
- 2. For Gujrat case study (Fitzpatrick, 2007), (Mukherji, 2010), (Mukherji, 2015), (McCallin et al., 2015; UNISDR, 2010); (McCallin et al., 2015); (Jigyasu, 2002)

3. THEORETICAL BACKGROUND

In this section, the theoretical perspective of land governance in post disaster settings and its impact on informal settlements are described. The context of the land governance framework and build back better (BBB) are given included as follows.

3.1 Land Governance in the context of urban informal settlements

The main issue concerning land governance in informal settlements is about provision of land rights and security, to curtail growth of informal settlements and to balance conflicting interests of various actors in solving land issues for low income housing (Palmer *et al.*, 2009b). The various studies show that the weak land governance in regulating land market for the low income population is the driving force for the proliferation of informal settlements. Despite the failure of the land market, the lack of proper land use plans as well as the failure of appropriate implementation of land use plans are the causes to allow settlements in vulnerable zones such as flood plains, fault lines, coastal zones etc. The further studies in the policy aspects have revealed that lack of clear policies related to land for informal settlement has generated a tolerant attitude of government towards informal settlements. In the long run, the settlements exist for decades due to the powerful influences of the social networks and social capital of the informal settlers strengthens (Shrestha, 2013). As a result, the settlers get socially recognized although the legal legitimacy is weak (Shrestha *et al.*, 2014).

Looking into tenure security of informal settlements, the settlement tends to have de facto and perceived tenure security (Van Gelder, 2010). The de facto and perceived tenure security are basically developed when the physical upgrading of informal settlements takes place. Similarly, the increased social capital and social network enhance the perceived tenure security. In reality, the settlers or communities build their own social norms and rules in the settlement areas. Indeed the social norms and values play a vital role in the land governance of informal settlements (Shrestha *et al.*, 2014).

The elements of Land Governance Assessment Framework (LGAF) which was developed by the World Bank (Deininger *et al.*, 2011) provide the basis to evaluate tenure security in informal settlements. The institutional and legal framework and land use plan are those elements that determine tenure security of informal settlements in a holistic manner. The indicators developed in LGAF on the institutional and legal dimension such as recognition of a continuum of rights, enforcement of rights, restriction of rights, clarity of institutional mandates can help to assess land governance in informal settlements.

3.2 The land governance of urban informal settlements in post disaster

The studies related to the disasters revealed that the informal settlers are the vulnerable groups in the aftermath of disaster. The land policies and laws that exist in pre disaster setting play a

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vital role in providing shelter and reconstruction. The lack of policies to recognize land rights of informally occupied land effect humanitarian response. The humanitarian response of rebuilding the infrastructure and shelter on land without the well defined land rights will lead to conflict, delay and an increased in costs (USAID). The lack of policies to recognize a continuum of land rights (Augustinus, 2010) in order to provide land tenure security of disaster for the affected informal settlers results in their displacement. Allowing the involvement of the civil society groups to create an inventory of the socially recognized rights is important in effective reconstruction efforts and building long term resilience for disaster affected informal settlers and communities.

The resilience of the community is defined as the coping capacity of disaster affected people in term of the environmental, social, economic and legal dimensions. The environmental resilience of the affected community can be achieved by timely land use restriction and implementation of land use zoning that prevents the informal settlers to settle back in the environmental sensitive zone in the aftermath of disaster. The social and economic dimension of resilience can be achieved by involvement of the community in the resettlement projects in such a manner that it ensures their shelter needs and incorporates livelihood and sense of wellbeing. The legal dimension of resilience includes the mechanism to incorporate informal land tenure arrangement into secure land tenure. Such as use of technical provision of storing and preventing land occupancy records collected in community level reduces the disaster related risks and response in the wake of the disaster (Mitchell 2011).

3.3 Conceptualizing "Building Back Better" in land governance of informal settlements The concept of "Building Back Better" (BBB) aims to improve recovery and reconstruction practices. The concept first emerged during the restoration after the Indian Ocean tsunami disaster (Wilkinson and Mannakkara, 2014). It is based on the norms that quick restoration without including risk reduction aspects that can further replicate and worsen the existing vulnerabilities. Kennedy et al. (2008) and Lyons (2009) pointed out that rebuilding in the aftermath of disaster without mitigating measures replicates the same vulnerabilities that existed prior to the disaster. The examples include: the non-adherence to design and construction regulation for buildings and infrastructure; insufficient focus on livelihood aspect; neglecting vulnerable communities like informal settlements. Moreover, the authors namely, Mitchell (1999), Lewis (2003) and Kijewski-Correa and Taflanidis (2012) indicate that the reconstruction and recovery period following a disaster poses an opportunity to address and rectify vulnerability issues in the communities. Linking the BBB with land governance in informal settlement it creates an opportunity of proactive interventions such as implementation of land use zoning, regeneration with application of land readjustment in post-earthquake phase in Japan, in developing land for low cost housing to prevent the new informal settlements. Similarly, it creates an opportunity for reactive intervention as well such as recognizing the informal settlement in the formal legal framework by in situ upgrading following the risk reduction norms. To do so, the land rights recognition based on the continuum of land rights (Augustinus, 2010) and adaptation of pro poor approach (Zevenbergen et al., 2013) can contribute.

Various guidelines aligning with the BBB concept are available and reflect land governance aspect. Several guidelines proposing BBB concept in reconstruction operations have been developed. These guidelines at international level are "Principle for settlement and Shelter" by United Nations Disaster Relief Organizations, "Hyogo Framework for Action 2005 -2015"

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and "The Sendai Framework for Disaster Risk Reduction 2015-2030" by The United Nations Office for Disaster Risk Reduction, "Rebuilding for a more sustainable future: as operational framework" by Federal Emergency Management Agency's, "Sustainable Recovery and Reconstruction framework" by World Bank. Similarly there are national initiatives such as "Post Tsunami Recovery and Reconstruction Strategy" by Government of Sri Lanka's, New Zealand Christchurch earthquake recovery authority's "Recovery Strategy" (Wilkinson and Mannakkara, 2014). These guidelines reflects land governance elements such as land use plan to reduce disaster risk, land use restriction in vulnerable zone such as flood prone zones, fault zones, land development with provision of disaster resilience infrastructure such as width of access road, open spaces, buildings following appropriate building norms. In addition to the physical aspect, BBB also reflects to the socio-economic resilience and also the good governance principle such as equity, participation, transparency (Wilkinson and Mannakkara, 2014).

As a part of BBB in the reconstruction phase, the informal settlements might not be incorporated as they are not legal entities. Most of the government intervention focuses towards the formal settlements. In certain settings, funds to rebuild a house are only released if formal land documentation can be supplied. This is always a challenge and is unrealistic in areas where land tenure was informal (Zevenbergen *et al.*, 2015). The disadvantaged groups who lack security of tenure are particularly vulnerable to disasters. The study of Usamah *et al.* (2014) showed that though the informal settlers are vulnerable group but the social resilience is very significant to cope back from the disaster in these settlers. Though these settlers are social resilience but due to lack of legal resilience they are often affected by disasters and the relative consequences of disasters are also greater for them. Therefore, the issue of informal settlements is equally important to be incorporated in the context of BBB.

4. DESCRIPTION of CASE STUDIES

In this paper we consider two case studies that relate the situations of land issues in informal settlements aftermath effects in the reconstruction phase. These two case studies are from Haiti Earth Quake of 2010 and India Earth Quake of 2001.

4.1 The Haiti Earth Quake

In January, 2010 an earthquake of magnitude 7.0 struck Haiti near its capital of Port-au-Prince. Within a week of the earthquake, hundreds of informal camps were erected across Port-au-Prince by persons displaced by the earthquake, termed internally displaced persons (IDPs). The earth quake killed an estimated 2, 30,000 people across Haiti with approximate 375,000 dead or injured in Port-au-Prince alone (Bramante and Raju, 2013).

Land issues and informal settlements

Prior to the earth quake disaster of 2012, Haiti did not have a national land policy to guide access or allocation of land. There was also no clear legal system for registration, occupancy, ownership and transfer of land. This makes difficult to recognize land rights of informal settlements that exist for the longer time. The rights of land owners on their land that is occupied by informal settlers are unclear, basically owners with incomplete documentation and inherited land that was not properly subdivided. The mechanism to cope with this problem has been individual negotiation with the people who have seized their land rather than challenging it through the judicial system. However, after math of disaster in 2014, the

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situation became more critical. The land owners themselves becomes more vulnerable, when land owners lost legal document or heirs lack proof of documentation for land rights due to death of legal land holders. Despite, there was no security that plot being occupied by others informally after land has been left unoccupied by the land owners themselves (Blake, 2015), Furthermore, the informal settlers often remain at their homes even when it is dangerous to do so during disaster, fearing they might lose their land. And without security of tenure, their homes are often rebuild in a way that cannot withstand earthquake (Myers, 2014).

Within a week of the after the devastating earthquake, hundreds of informal camps were erected across Port-au-Prince by persons displaced by earthquake, termed internally displaced persons (IDPs). Approximately, 105,000 homes were destroyed and around 85,000 homes were damaged which resulted nearly 1.5 million people dropped into IDP camps (Bramante and Raju, 2013). The spatial analysis of IDP camps conducted by Bramante and Raju (2013), reveals that most of the camps are located near to city center, near to distance from airport and high elevation area to be protected from tsunami. Further, the study made clear that displaced Haitians fled to the higher and easily accessible ground for greater access to international aid and safety from further effects of the earthquakes, like tsunamis or slope failure. According to McCallin *et al.* (2015), 1.1 million IDPs are living in camps after 10 months of disaster. After 2 years of disaster, the IDPs population was 500,000 and in early 2015 it was decreased to 64, 700.

There was a draft shelter strategy to convert IDP camp into transitional shelter before stepping into permanent housing. In the transitional phase the aim was to provide the affected people with secure, safe, private and dignified shelter for the duration until permanent housing could be reconstructed. Due to lack of proper technical feasibility assessment of type of the transitional shelter ended up an object rather than shelter process. Due to the unclear process and policies there was delayed in providing transitional shelter termed as T-shelters. By the time the T- shelters are available for deployment many camps were allowed to densify and 'solidify' themselves. The settlers of the camps had already created their economic activities ranging from the beauty salons to internet cafes to food stalls. This self-created economic resilience left the camps to turn into permanent shelter (Sanderson *et al.*, 2014). According to the International Organization for Migration, as of December 2014, an estimated 21,218 households, or 79,397 people, remain homeless in 105 camps scattered throughout metropolitan Port-au-Prince and the region (Blake, 2015). This indicates that IDPs camp converted into informal settlements.

One of the greatest institutional concerns in Port au Prince was the lack of clarity on land titles, lack of reliable government land records, and lack of evidence of ownership with the occupants and also there was no alternative mechanism to identify genuine claim. Therefore, land availability and ownership has become a large hindrance to the reconstruction. The land issues particularly includes: proving land ownership where documentation has been lost or competing titles exist, rebuilding transitional shelter (T shelters) on private land with negotiated land rental on land rental, eviction notices on camps by land owners, presence of camps on land allocated for other purpose, progressing camps into semi-permanent structure, land issues of informal settlements (Clermont *et al.*, 2011). Besides land tenure issue, the lack of land use zoning and regulations had also hindered the reconstruction phase. As indicated in the studies of Hooper (2015), that there was diversified spatial preference of different actors such as government, international and national NGOs, bilateral development agencies and

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private developers in long term housing construction into aftermath of the disaster. The institutional weakness and lack of proper land use plan and zoning have triggered the various actors to act according to their own logic and preference of housing site selection. According to McCallin *et al.* (2015), the institutional weakness such as lack of leadership in guiding reconstruction effort, clear roles and responsibilities in various government agencies, lack of coordinating national agency and policy framework had seriously effected the activities of international respondents such as USAID, World Bank, UN- Habitat. This has led the international agencies in defining the minimum standards and operational priorities. Moreover, the informal settlements are seriously impaired in implementation of humanitarian reconstruction standards.

International organization like British Red Cross (BRC) have actively made engaged in providing shelter assistance to disaster affected people. The land tenure issue made the actions of BRC less effective. However, some temporary measures where feasible, such as paying rent to land owners for three year periods or negotiating with land owners for extended land usage. BRC implemented a neighborhood plan when landowners were able to prove their ownership. The informal settlements that lack legal documents could not become the real beneficiaries. To get the support for reconstructing their house, the land owners themselves approached the organization. The clearing the rubble and preparing the piece of land with clear land titles has been the mandate for land owners. The land rights issues were beyond the control of NGOs and there was no access to land related databases. An overall implication of the lack of clarity on land titles, lack of space to build infrastructure and legal hurdles in providing any services with a semblance of permanence, are that all intervention program took place in a piece meal manner lacking national recovery of the country (Clermont *et al.*, 2011).

Several years occurrence of the disaster, land governance has become the critical factor that hinders in reconstruction phase (Myers, 2014). Realizing the importance of land tenure and land rights issues in reconstruction phase, Haiti Property Law Working Group (HPLWG) was formulated in June 2011 with partnership of Architecture for Humanity and Habitat for Humanity with support from the Digicel Foundation (Frederique, 2011). The mandate of this working group was to create a series of manuals in order to assist users like international and national agencies, private sector in reconstruction phase of aftermath disaster. In this regards, the first volume of manual "A How to Guide for the Legal Sale of Property" was published in January 2013 and was formally endorsed by Government of Haiti. This guide provides legal procedures and land rights in accessible manner. Similarly, the second volume "Securing Land Rights in Haiti" was published in March 2015. This manual is intended to provide a legal blue print for addressing the rights of property owners and informal settlers (Frederique, 2011).

4.2 The Gujrat Earth Quake: 2001

On 26 January 2001, an earthquake of 7.7 Richter scale hits the Indian state of Gujarat. The epicenter was located in Kutch district. The earthquake killed more than 20,000 people (Mukherji, 2015). The various cities (Anjar, Bhachau, Bhuj and Rapar) of this district turned to rubble. The city Bhachau was close to the epicenter and suffered worst devastation with more than 2000 people killed out of 35000 population (McCallin *et al.*, 2015).

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Land issues and informal settlements

The Gujrat State Government is responsible for land issues and its administration in land governance (Fitzpatrick, 2007). Prior to 1990s, Gujarat state had policy to distribute land tenure, called "Sanad", to the settlers occupying the land informally. "Sanad" is a type of tenancy title by which the state confers the right of occupancy to a squatter on a piece of public land. This title is non-transferable, meaning that, they are not allowed to sell that land to the third party. Still in the small city of Gujrat like Bachhau, not all the informal settlers have "Sanad". The rationale behind this was that communities who have political back up had support to push their land tenure case while the communities not having any political support were left behind. The city of Bachhau was designated as urban areas in the 1990s; which caused administrative changes in land tenure decision i.e. the decision power has shifted from the local level to the District Collector's Office. But at that level there was less preference in the issuing land tenure and was stopped. As a result, the informal settlements were left over without any types of occupancy documents (Mukherji, 2010).

In the aftermath of the disaster, reconstruction was not permit only until planning and zoning of risk sensitive areas was completed and a building permit was given almost two years after the earthquake occurred (Fitzpatrick, 2007; Mukherji, 2010). Government tried to relocate some villages. However, after having resistance from the land owners, the government initiated owner driven reconstruction rather than contractor driven reconstruction (Jigyasu, 2002). Government then introduced the program to provide financial assistance to the land owners to rebuild their houses. Since many people lost their land titles and ownership certificates along with other documents and there is no electronic register for land titles, the alternative evidence via documents such as electricity bills, telephone bills are accepted during reconstruction phase. However, the program was less favorable to the marginalized groups like the renters and the informal settlers (UNISDR, 2010). Due to unfavorable policies, most of the long term renters in Bachhau became informal settlers on public land after the earthquake (Mukherji, 2010).

The housing recovery policy for the informal settlers who had an occupancy certificate was unclear. It lacked clear guidelines on how and on what basis financial assistance would be made available to the informal settlers. The policy stated that the destroyed squatter houses (built with foundations and walls made of mud or burnt bricks with cement mortar) would get financial assistance at the rate of 2,200 rupees (\$52) for every square meter of built-up area with a maximum limit of 55,000 rupees (\$1,294). Moreover, shanty units (small, crude dwelling without a foundation and typically made of mud, thatch, cardboard, or tin sheets) would get 7,000 rupees (\$165) as public assistance. Yet the policy did not specify a number of aspects of the plan, e.g., how local authorities would verify long-term squatters, what the definition was of a squatter house and a shanty unit, or whether the newly established seismic safety building codes would apply to squatter houses. Not surprisingly, the lack of adequate guidelines to address squatter needs created much confusion during the execution of the housing recovery program (Mukherji, 2010).

Realizing the complexities of policy, the local NGO namely "Unnati" made an advocacy for the housing rights for informal settlers. The NGO was able to take local authority Bacchhau Area Development Authority (BhADA) on board in its advocacy. BhADA is an agency appointed by the Gujarat state government to implement and coordinate urban development and housing reconstruction in Bachhau. The rationale behind the agreement of BhADA was

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that the city consists of more than 40% of informal settlers as well as the city was not the administratively centralized capital city and also politically less sensitive city. The NGO together with BhADA were successful in negotiating the housing assistance. Hence, the informal settlers with tenure were eligible for assistance amount from 60,000 rupees to 100,000 rupees (\$ 1,428 to \$ 2,380) depending upon housing damage and construction type (masonry or reinforced-concrete unit). Further, BhADA together with NGO forwarded the alternative of land tenure arrangements by incorporating the documents like Bachhau ration card. Then household with ration card became eligible for housing assistance of 55,000 rupees (\$ 1,309). Further, the study of McCallin *et al.* (2015) had mentioned that involvement of citizen support cell, Nagrik Sahyog Kendra (NSK) with collaboration with BhADA and the Gujrat State Disaster Management Authority (GSDMA) able to regularize the land tenure of 1,300 out of 1,767 families on the basis of their proof of residence in Bhachau. The regularization of land tenure made them eligible to get financial and technical assistance in rebuilding their house as per earthquake resistance building norms.

Similarly, the study of Balachandran (2006) shows how the Environmental Planning Collaboration (EPC) had adopted various methods and instruments which address BBB elements. During reconstruction phase of the Bhuj city, the key activities like mapping property, preparation of a city level development plan to mitigate vulnerability, the development of urban infrastructure and supporting the community initiative planning had been conducted. It also revealed that proposal of the development plan consist the allocation of land for social infrastructure such as hospitals, parks, educational buildings, shopping facilities to serve for low income groups such as informal settlers. Moreover, it was mentioned that there were special provisions for informal settlements in the policy packages for the earthquake victims. However, the study does not mention how the land issues related to informal settlements were tackled in the reconstruction phase.

5. CASE ANALYSIS in CONTEXT of LAND GOVERNANCE of INFORMAL SETTLEMENT and BUILD BACK BETTER

The analysis of the cases is conducted to explore the land governance elements and its impact in informal settlements. The LGAF elements like recognition of a continuum of rights, enforcement of rights, restriction of land use rights, clear institutional mandate and participatory land use planning and zoning are applied in analyzing the case studies. We find these land governance elements of informal settlements relevant in the context of BBB.

Recognition of a continuum of rights: The Haiti case study shows that the aftermath of disaster, the NGOs and INGOs could not act effectively. The lack of clear land ownership situation is a critical factor most often in the informal settlements. Due to unclear land rights and lack of alternative provision of land ownership documents that recognize the settlements, the international agencies like BRC failed to provide better shelter assistance. In contrast, the Gujrat case study shows that there exists alternative form of tenure arrangement like "Sandai". However, the implementation of continuum of land rights does not exist. The lack of occupancy document in all informal settlements, the NGO like "Unnati" was unable to provide shelter assistance to improve the houses. Though the "Unnati" together with BhADA lobbied and succeed to change the criteria for land tenure and also NSK together with

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BhADA able to regularize the land tenure in one city Bhachau but the issue seems to be tackled at city scale only. Both cases do not reflect any group rights recognition in informal areas.

<u>Enforcement of rights:</u> Realizing the importance of land rights and tenure security of informal settlements in reconstruction phase for risk reduction, the case study of Haiti shows that there is an initiative to develop a guide line that recognizes and enforces the land rights. In Gujrat case, it was revealed that documents like "ration card" have been adopted to proof their residence and their land rights. However, it also reveals that a workable the mechanism to enforce land right rights of informal settlements is important to improve the settlements in a better way.

<u>Restriction on land use rights:</u> The Haiti case does not reveal that there was any land use restriction aftermath of disaster. The informal settlers sit on land though it was vulnerable because of losing access to their original land. On the other hand, IDP camps remain for longer duration with commercial activities starting in the camps. While, the Gujrat case shows that building permit was not allocated till the risk reduction land use plan was implemented. However, there were no clear rules that applied to informal settlements about following building norms while using the land for shelter purpose.

<u>Clarity of institutional mandates:</u> The weak institutional framework is the main problem in Haiti case which had created conflicts during reconstruction phase. The lack of institutions and clear defined roles of government as well as international development agencies in tackling land issues especially in disaster affected areas had seriously affected humanitarian response. This have effected more severely to the informal settlers. To overcome the weakness in existing institutional aspect such as planning rules, building rules in informal land or for informal settlers, the development agencies had taken lead in defining minimum standards and operational priorities. Following the Gujarat case, it was revealed that there was strong institutional framework compare to Haiti. The Gujrat State Disaster Management Authority (GSDMA) was leading governmental body. In reconstruction phase, GSDMA with collaboration with local authority and civil society had initiated tenure regularizing in order to facilitate technical and financial response in building houses.

<u>Land Use Planning</u>: Haiti case study revealed that there was no land use planning and zoning adopted in reconstruction phase. The informal settlers stay in hazard location due to fear of dislodgement from the occupied land. However, the Gujrat case shows that there was immediate restriction in reconstruction till land use zoning was completed. Further, there was participatory approach in developing city level plan of Bhuj city. It was also revealed that the planning proposal consists of special consideration for informal settlements in terms of providing physical, social infrastructure. The detail study of regularizing informal settlement

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by spatial planning is not yet reflected in the case study. However, it provides reflection that initiative of aftermath earthquake have incorporated the BBB elements.

6. KEY LESSONS LEARNT BASED ON CASE STUDY AND OTHER RESEARCH

The following key lessons learned are provided based on the theoretical framework and results of the above two case studies. In the case studies the elements of land governance in informal elements are explored and analyzed in the context of BBB. In the case studies, especially in Haiti case, the elements of BBB does not seemed to be applied. While in Gujrat case, the actions towards BBB is reflected.

Poor land governance increases vulnerability to a disaster in the informal settlements

The weaknesses in the institutional aspect which fails to recognize the land rights of informal settlers during pre disaster phase results severe back logs in the humanitarian assessment in post disaster. Most of the displaced groups those who lack land tenure documents wish to return to their land as soon as possible with a fear of dispossession and loss of land. The government intervention may not include the informal settlements in the risk reduction infrastructure and disaster risk assessments. The implementation of building by laws, land use regulations does not apply to those settlements which is not a legal entity. This might hurdles the key category of the BBB framework which consists of risk reduction by improving structural design and land use planning (see (Wilkinson and Mannakkara, 2014)).

Access to land and clear land tenure is pre requisite to Build Back Better

Another key lesson learned is that clear land tenure and access to land becomes important in post disaster phase. During the after math of disaster, there are various actors and donor agencies were found to be active. This in fact creates opportunities to fulfill the category of community recover. As mentioned in the BBB framework by (Wilkinson and Mannakkara, 2014), despite physical upgrading social recovery and economic recovery of vulnerable groups is equally important. However, due to lack of clear tenure the recovery and reconstruction measures cannot be executed. This is reflected from both the case studies as well. Hence, tenure security creates reluctance situation for donor agencies to build permanent and better shelter, preserving social structure. Moreover, lack of legal documents creates barrier in providing collateral in financial institution which ultimately distracts the settlers from economic recovery (De Soto, 2000).

Institutional Weakness are is a key hurdle for land governance and BBB

The third lesson learnt from the case studies lack of strong state authority creates critical barrier in the humanitarian response in different phases on disaster. As it is reflected from Haiti cases, the lack of strong leadership on post disaster left many international development agencies deployed for humanitarian support were in confusion. In this aspect, various agencies followed various norms. While in Gujrat case, it revealed that there was institutional back up like The Gujrat State Disaster Management Authority (GSDMA) in state level while Bacchhau Area Development Authority (BhADA) in city level. The NGO and Civil society activities were conducted with close coordination with government authority.

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The fourth lesson learnt from the case studies regarding the role of non-government and local authority. The NGOs and civil society plays a vital role to overcome pre- existing weak land governance institution. As it is reflected from both case studies, the INGOs, NGOs manage to define alternative approaches to generate relative land tenure in order to provide shelter assistance to the informal settlers. As highlighted by (Doberstein and Stager, 2013), the funding aid from international donor need to be applied in the risk reduction approached. Investments in the informal settlements that lack legal tenure security do not reduce vulnerabilities. It is shown in the case of Gujrat that there are no clear guidelines regarding application of building code during reconstruction of shelter in the informal settlement. However, the donor agencies find the method to overcome existing weakness in institutional aspect. In fact most of the organization works in restricted time frame which creates barrier for them to wait till there is improvement in land governance institution (Fitzpatrick, 2007). Furthermore as highlighted in Haiti's case, the international organization has a significant role in improving land governance of the country by bringing various stakeholders on board. The management of various stakeholders to solve conflicting interest is also a key factor in BBB framework as highlighted by (Wilkinson and Mannakkara, 2014) which can be achieved with improved land governance.

7. CONCLUSION

Though weak land governance has effects in different phases of the post disaster, our study basically focuses in the reconstruction phase of post disaster. The analysis of our case studies revels that informal settlements are disadvantaged group in post disaster settings. The weak land governance restricts the opportunity to building back better in informal settlements. Though, the social aspects plays a vital role in coping capacity of informal settlers and lessen the social and economic venerability to some extent but lack of clear legal framework hurdles in their opportunity to bounce towards less vulnerable community like residing in less vulnerable zones, technical support in adopting earthquake resistance building norms, opportunity to get financial assistance to rebuild their house etc.

The key lesson learned from this study draws into the conclusion that inorder to to reduce vulnerability for future disaster – the basic norms of BBB - the land governance for informal settlements need to be enhanced by strengthening institutional dimension of land governance as well as implementing land use planning tool with participatory approach in cummunity level. While strengthening institutional dimension, the pro poor approach of land recording and continuum of land rights need to be defined in land policies and rules to restrict elite group as a beneficiaries.

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