

# Success of Post-Natural Disaster Reconstruction Projects—Significance of Community Perspective

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Received: June 30, 2016

Accepted: July 6, 2016

Online Published: August 10, 2016

doi:10.5539/ijbm.v11n9p69

URL: <http://dx.doi.org/10.5539/ijbm.v11n9p69>

## Abstract

Climate change induced by rapid urbanization resulting in increased frequency and severity of natural disasters. Losses due to natural disasters are continuously rising, thus requirement of post-natural disaster reconstruction (PDR) is also increasing. PDR projects involve piles of resources and efforts; therefore, it is becoming more important to ensure success and sustainability of PDR projects. Usually PDR projects involve interests of a large number of stakeholders and each stakeholder perceives success of project through its own perspective. The purpose of this research study is twofold; firstly, it aims at substantiating the significance of affected community, as most important stakeholder in PDR project. Secondly, it aims at revealing the importance of affected community view point and its consideration for success and adoptability of a PDR project. Through rigorous literature review and case study method, this paper has critically analysed two typical post natural disaster reconstruction projects, one each from Pakistan & Sri Lanka. This research study has concluded that affected community is an important stakeholder and consideration of their viewpoint and involving them in decision making process, especially in planning and implementation phase is very important for success and sustainability of a PDR projects. Despite employing huge financial and other resources, disregarding and disengagement of community could lead a project to the failure. These findings also helped to outline a few recommendations for the practitioners to ensure success of PDR projects.

**Keywords:** disasters, reconstruction, stakeholder, community, project management

## 1. Introduction

Natural disasters, whether of geological nature such as earthquake and volcanoes, or of having meteorological nature such as floods, droughts, cyclones and tornadoes causes massive destruction to human life, environment and economy (Tun, Lin, & Pairote, 2006). Significantly changed climate conditions are also increasing the frequency of natural disasters (Warren, 2010) and consequential damage to human kind is also significantly increasing (Alexander, 2004; Liu et al., 2013; Shafique & Warren, 2015). World's 75 percent of population is living in the areas that at least once have been affected by natural disasters during the years 1980 to 2000 (Tun Lin et al., 2007). According to Centre for Research on the Epidemiology of Disasters, natural disasters has caused death to more than 1.2 million people during the year 2001 to 2014 (CRED, 2015). The statistics shows that damage to the economy due to natural disasters is US\$ 1.7 trillion during the year 2001 to 2014.

Table 1. Occurrence of natural disasters during 2001 to 2014

Year	Occurrence	Total deaths	Total damage to economy (US \$ ,000)
2001	450	39,496	27,049,439
2002	506	21,345	52,074,152
2003	421	113,513	69,810,350
2004	403	244,880	136,340,178
2005	488	93,075	214,202,351
2006	462	29,893	34,104,949
2007	449	22,413	74,420,257
2008	394	242,191	190,548,247
2009	386	15,901	46,606,923
2010	436	328,634	132,194,096
2011	361	34,139	364,093,168
2012	362	11,155	156,480,867
2013	351	22,204	119,413,189
2014	290	15,733	84,988,796
<b>Total</b>	<b>5759</b>	<b>1,234,572</b>	<b>1,702,326,962</b>

Source: (CRED, 2015).

It is commonly understood that there is no way to avoid natural disasters and its negative impact upon humans, however, efforts could be made to reduce its impact through systematic efforts (Tun Lin & Pairote, 2006). The set of operational activities, administrative policies and decisions, resources and technologies that aims to reduce the impact of a natural disaster is defined as disaster management (Lettieri et al., 2009). The key objectives of disaster management are threefold; i) to avoid the potential losses; ii) to provide prompt and appropriate support to the victims and; iii) rapid and effective recovery and minimize vulnerability (Henry Ngenyam, 2012). Disaster management includes different phases namely prediction, warning, emergency relief, rehabilitation and reconstruction (Moe & Pathranarakul, 2006). Reconstruction is the long term phase, which aims at restoration of infrastructures and services, revitalization of the economy, social and cultural life (Birkland, 2006; Moe & Pathranarakul, 2006).

Reconstruction also provide the opportunity to build back better (Labadie, 2008) and initiates lots of economic activities and opportunities, hence, interests of various groups and individuals are invoked. The groups or individuals, whose interests may be affected positively or negatively by the projects are called stakeholders (PMI 2001) and stakeholder becomes more significant in reconstruction phase (Karanci & Aksit, 2000). In a PDR project different stakeholders have diverse interests and expectations (Siriwardena & Haigh, 2011), however, depending upon the nature of the project, interest of a particular individual or organizational stakeholder can be more intense and important (Chang et al., 2010). Every stakeholder perceives project through his own perspective, thus success assessment may differ in view of each stakeholder (Shenhar et al., 1997). In PDR projects, the affected community is the most significant stakeholder (Shafique & Warren, 2015), therefore view point of affected community is very important while assessing success.

The primary objective of this research study is to substantiate the significance and role of affected community in PDR project. Secondly, it also aims at revealing the importance of affected community's view point and its consideration for success and adoptability of a PDR project. Through rigorous literature review and case studies analyses, it has been reveals that community is an important stakeholder in PDR project and should be involved in decision making process at each and every phase of project life cycle. Their view point must be considered to ensure success and sustainability of the project. On ground practices adopted for implementation of PDR projects, especially in developing countries are in contrast with the most recommended 'community engagement practices', therefore PDR projects in developing countries are unable to achieve their objective.

## 2. Research Background

The United Nations Office for Disaster Risk Reduction (UNISDR) has reported that the frequency of natural disaster and consequential damages are steadily increasing (Alexander 2004; Warren, 2010; Shafique & Warren, 2015). Major victim of the natural disasters occurred during last decade are from developing countries. Statistics reflects that more than 88 percent of the total population affected by natural disasters during 2001 to 2014 are from Asia, which is mainly comprised of developing countries.

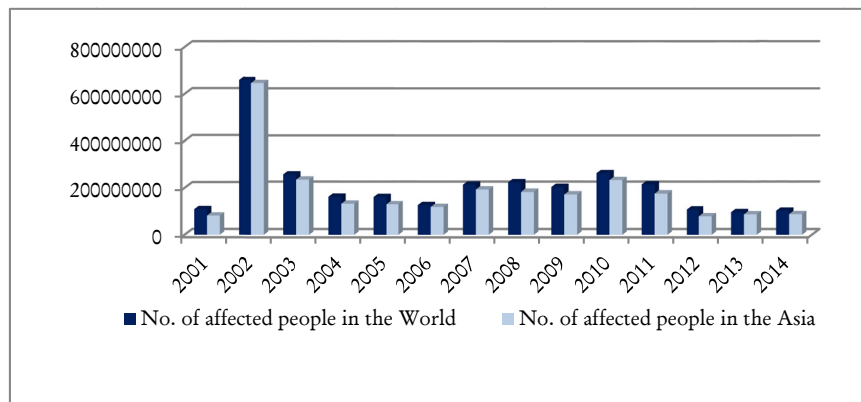


Figure 1. Comparison of natural disasters affected people in the World and Asia during the year 2001 to 2014 (CRED 2015)

Developing countries are mostly prone to the natural disasters but still lacks proactive strategies for preparedness, mitigation and early warning (Tun Lin & Pairote, 2006). It is also a depressing fact that these countries have very limited capacity and resources to combat the natural disaster. Usually poorer communities of developing countries living below the poverty line are most vulnerable to natural disaster due to economic, social, political, and cultural factors forcing them to live in disasters prone areas (Marcia, 2007). This scenario results in more devastating situation even in the case the disasters may not that much severe or intense (Strömberg, 2007).

### 2.1 Disaster Management

The devastation caused by natural disasters could not be totally avoided, however through an integrated systematic approach of disaster management it could be minimized (Moe & Pathranarakul, 2006, Tun Lin et al., 2007; Chang et al., 2011). Disaster management could be defined as a set of operational activities, administrative decisions, technologies and actors that pertains to various phases of disaster (Lettieri et al., 2009). Disaster management is a process which comprised on following five phases:

- (1) Prediction;
- (2) Warning;
- (3) Emergency relief;
- (4) Rehabilitation and;
- (5) Reconstruction (Moe & Pathranarakul, 2006).

Each phase has specific activities and objectives with a particular time frame. The reconstruction phase is the long term phase aims at rebuilding of infrastructure and services and revitalization of social life and economy (Omidvar et al., 2011). Reconstruction after natural disaster is more dynamic, complex and different from routine construction due to some additional challenges e.g. scarcity of resources, involvement of stakeholders, legislations and governmental policies (Le Masurier et al., 2006). The reconstruction could also be considered as an opportunity to 'build back better', which means reconstructed infrastructure and services should be more resilient and sustainable to withstand future disasters (Ophiyandri et al., 2013).

### 2.2 Post Disaster Reconstruction Projects & Project Management

A project is a temporary endeavour that is undertaken to achieve specific objectives and project management is the application of knowledge, tools, skills and techniques to achieve these objectives (PMI, 2001). Management of a project typically involves identification of requirements, addressing the needs, expectations and concerns of the stakeholders and balancing the project constraints that are scope, quality, budget, risks, resources and schedule (ibid, 2001). The post disaster reconstruction environment is more complex, dynamic and unpredictable (Berke et al., 1993; Alexander, 2004; Birkland, 2006). Masurier et al. (2006) noted that PDR projects are different from routine construction project in several aspects including allocation of responsibility, significance of communication and coordination among stakeholders, scarcity of available resources and application of rules and regulations that are suitable for routine construction rather than PDR projects. Stakeholders especially community have significant importance in PDR projects and to ensure success, active engagement of community from initial stage should be encouraged (Hayles, 2010).

### 2.3 Project Success and Sustainability

Project success is one of the most discussed topics in project management, however still needs attention of researchers to reach to an agreed upon conclusion (Shenhar et al., 1997). Infact, measuring success of a project is a complex task (De Wit, 1988) and researchers have utilized various measures to evaluate the success of a project. Most common success criteria is achievement of project objectives within stipulated time and budget (De Wit, 1988), however empirical evidences of perceived failures of the projects in industry suggests a need to conduct further research in this area (Davis, 2014). Lim and Mohamed (1999) have classified project success into two categories i.e. macro and micro. The macro level success reflects the achievement of original concept of the project beside, micro level success deals with the achievement of smaller level of project components (Lim & Mohamed, 1999). If a project has achieved its small component level targets, it could be considered successful at micro level, however it does not mean that it is also successful on macro level. The ideal situation is, the project should result in win-win situation for all stakeholders, however, this seldom happen (Lim & Mohamed, 1999). Shenhar et al. (1997) presented following four dimensions of project success.

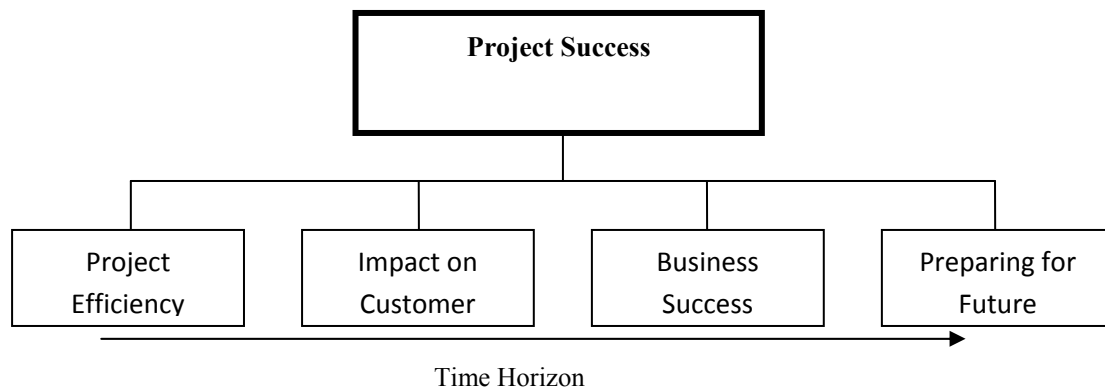


Figure 2. Dimension of project success

Source: (Shenhar et al. 1997) (p. 11).

The first dimension i.e. project efficiency refers to the short term measure expressing efficiency and effectiveness of project process. Second dimension is related to the customers or end users and measures the degree of meeting their needs and requirements. Third dimension addresses the direct impact on the organization and measures increase in profits or improvement in services provided by the organization. The last dimension is the long term and addresses the preparation of organization for future opportunities (Shenhar et al., 1997). Therefore, it is quite understandable that project success could not be judged in accordance with project's goals alone, but satisfaction of its users is also a determinant of project success (Lim & Mohamed, 1999).

Sustainability is becoming an important issue and academics and practitioners are exploring ways and means to deliver more sustainable projects (Agyekum-Mensah et al., 2012). Sustainability is an integrated approach considering economic, environmental, technical, institutional and social concerns at each stage of reconstruction to produce long term results (Guarnacci, 2012). It is basically a dualistic approach; it focuses on the challenges of the present while, in parallel, it also promotes a culture of maintaining the environment more sensibly for future generations (ibid, 2012; Agyekum-Mensah et al., 2012). Thus, reconstruction process needs coordination among different actors for intense decision making about complex issues to achieve targeted goals (Guarnacci, 2012). The planning and implementation of the PDR projects should equally consider the social, economic and environmental aspects and many researchers have identified these factors as three main pillars of sustainability (Hill & Bowen, 1997). In order to ensure sustainability of the PDR projects, 'integrated' approach needs to be adopted in the planning and design process, as it cannot be simply added as an afterthought (Hayles, 2010). Generally, PDR projects involve lots of resources and have specific importance for stakeholders, therefore, sustainability of these projects is very important (Shafique & Warren, 2015).

### 2.4 Stakeholders

These actors, whether individual, a group or organization, who are actively involved or whose interests are attached with the project are called stakeholders (Yang et al., 2011).

Project Management Institute has defined stakeholders as:

*“Individuals and organizations who are actively involved in the project, or whose interests may be positively or negatively affected as a result of project execution or successful project completion.”* (PMI, 2001).

Based on this definition, a large number of stakeholders have been identified in the literature including government, non-government organizations, community, project management team and professionals, private / corporate sector, researchers and academicians and, media (Siriwardena & Haigh, 2011). Communication and coordination among different stakeholder groups and involving them in decision making process underpins the project success (Yang et al., 2010). Success criteria of the project should be discussed and agreed by the stakeholders before its initiation and should also be reviewed throughout the project life cycle (Davis, 2014).

### 2.5 Viewpoint of Stakeholders

Project success is always subjective to the judgement from different perspectives and predominantly it is in the eyes of the beholder (Jugdev & Müller, 2012). Perception of project success in the view of different interest groups and stakeholders is unlikely to be the same (Lim & Mohamed, 1999). This is mainly due to the reason that different stakeholders consider projects from different perspectives and rate success using different dimensions (Shenhar et al., 1997). In this regard, an interesting example regarding the different viewpoints of stakeholders can be seen from this statement:

*“An architect may consider success in terms of aesthetic appearance, an engineer in terms of technical competence, an accountant in terms of money spent under budget, a human resource manager in terms of employee satisfaction and chief executive officer rates its success in stock market”.* (Freeman & Beale, 1992, p. 8);

Similarly, Lim and Zain Mohamed (1999) have quoted an empirical example of different viewpoints of various stakeholders of a project. In the year 1994, a renowned property developer of Kuala Lumpur initiated a project of a million sq. meter shopping plaza in Putra Jaya. A consortium of Malaysian-Japanese construction companies was awarded this project with a target time of 12 months and at a cost of RM 100 million. But the project took 15 months with a cost of RM 146 million. This situation raised dispute between contractor and owner of the project and resulted in legal pursuit. Besides, the shopping plaza proven to be very popular among tenants and the shoppers (Lim & Mohamed 1999, p. 243). In this case, the project was considered a failure from the viewpoints of the contractor and developer, due to cost and time overruns, however, the users and the community considered it as a success due to its usability and quality. The contractor and developer suffered financial losses in this project, however users had no concern with the losses of the others, and they evaluated the project as per their own expectations and perception. Therefore it is obvious that perceptions of stakeholders are mainly base upon their personal expectations from the project and they evaluate success of a project according to their own perception (Lim & Mohamed, 1999; Davis, 2014). PDR projects are not an exception in terms of determination of success being seen from various viewpoints. In the PDR projects perspective of various stakeholders become more significant, as the project may have very specific objectives, which directly relates to the interests of an individual or group of stakeholders (Davis, 2014).

### 2.6 Stakeholder's Participation

In recent years, stakeholders' participation in disaster management process-especially in the reconstruction phase-is considered as an essential part (Omidvar et al., 2011) because it not only helps smoothening and streamlining the process but also creates resilience for future disasters (Chandrasekhar, 2012). Therefore, viewpoint of the stakeholders should be given prime importance while planning and implementing the project. It is very important that stakeholder's consultation / participation should take place as soon as possible and they should be involved in decision making process from very first day of the project (Hayles, 2010). Stakeholders must be given legitimate power and trust to perform their role in more beneficent way (Chandrasekhar, 2012). Stakeholders participation could be considered as a key factor in success of a PDR project (Ganapati & Ganapati, 2009).

### 2.7 Significance of Community Participation in PDR

Although the community which have been directly affected by a disaster are fully engaged in emergency phase, however they are perceived as victim rather than the potential driving force in the reconstruction phase (Sadiqi, 2014). This scenario gives a notion that the community is the passive recipient of the assistance on humanitarian ground rather than an active stakeholder in reconstruction (Lettieri et al., 2009). In recent years, community participation has been considered as a critical part of reconstruction activities (Hayles, 2010, Omidvar et al.,

2011, Davis, 2014, Sadiqi, 2014). Davidson et al. (2007) has presented a 'ladder of community participation' that defines the amount of community control over decision making process in PDR project.

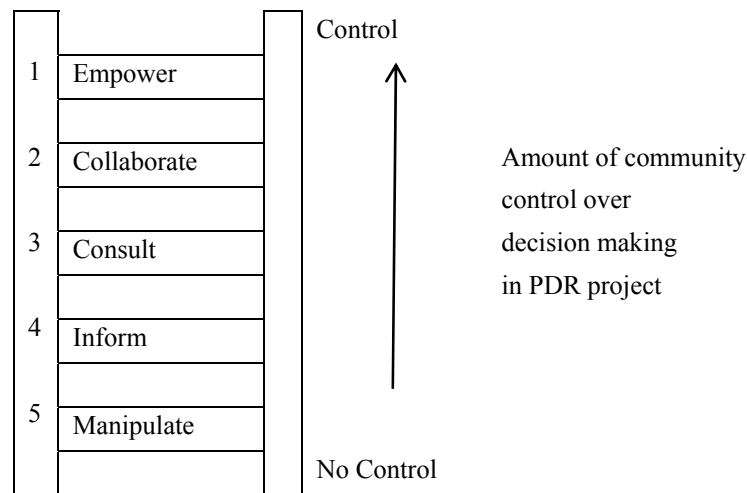


Figure 3. Ladder of community participation

Source: (Davidson et al., 2007).

This ladder of community participation depicts that if the community is involved in the decision making process and they are empowered enough to implement their decisions, thus they have full control over the project. On the other hand, if the community is consulted about their requirements and needs but there is no assurance that their opinion will be taken into account or manipulated to achieve vested interests of other stakeholders, they have no control over the project. Participation of affected community will result in more suitable and practical solutions to the problems of their own (Jeyanth & Godfrey, 2003). In fact, community plays pivotal role in post natural disaster reconstruction and their participation determines success of the project (Sadiqi, 2014). Detailed analysis of a number of PDR projects revealed that in majority of the projects, community does not really participated (Hayles, 2010), therefore projects are on high risk of failure.

Researchers have emphasized on engagement of stakeholders in the PDR projects and have outlined various approaches for this purpose. However, these approaches still have not been implemented on ground - especially in the developing countries - in its true letter and spirit (Hayles, 2010, Daly & Brassard, 2011, Sadiqi, 2014). Most of the reconstruction projects that are considered as 'participatory' by their managers are not really participatory in nature or extent (Hayles, 2010). This gap between theory and practice of reconstruction is creating barrier to success of the projects, and needed to be overcome (Le Masurier et al., 2006). According to Zabiullah Sadiqi (2014), there are several causes of lack of community participation. Generally, affected people are unable to participate due to lack of capacity and strict and unfavourable policies and practices of the government. In some scenarios people are not willing to participate due to involvement of NGOs and other government agencies that are not competent or corrupt. In the developing countries, the affected people also have very limited opportunity to participate and are not encouraged to take part in reconstruction activities due to several social, cultural and economic reasons (Sadiqi, 2014). However it is quite obvious that stakeholder's, especially affected community's participation is very critical for success of a PDR project (Ganapati & Ganapati, 2009; Chang et al., 2011; Daly & Brassard, 2011; Omidvar et al., 2011; Chandrasekhar, 2012; Sadiqi, 2014).

### 3. Review of on Ground Practices

Review of contemporary research has been conducted in preceding section and it has been determined that participation of affected community in PDR project is significant for its success and sustainability and each stakeholders view success of project through his own perspective. To achieve second objective of this research paper, case study method have been utilized. Case study method helps to comprehend the factors that define a particular system and the event or process taking place in that system (VanderStoep & Johnson, 2008). Case study method has been found useful for social science research (Shafique & Warren, 2015). Two case studies from developing countries has been selected for this research, as statistics shows that majority of the disasters victim during last decades are from developing countries (CRED, 2015). Several developing countries of Asia

have suffered massive destruction due to natural disasters during past decades, resultantly numerous post natural disaster reconstruction projects are at going on in these countries. Published data, periodical reports, experts' opinion and personal observations methods were used to analyse the case study.

### **Project 1: Relocation of vulnerable population in Galle, Sri Lanka**

An earthquake ( $M_w$  9.3) occurred in the Indian Ocean, off the western coast of Northern Sumatra, Indonesia on 26 December 2004 at 00:58 UTC (coordinated universal time). This earthquake triggered a series of huge tsunami waves that propagated in the Indian Ocean widely, and devastated the coastal areas of 12 countries including India, Sri Lanka, Indonesia, Thailand (Tomita et al., 2006; Rossetto et al., 2007). This massive disaster caused death to 226,226 (including 49,648 missing) people, which exceeds the damaged caused by any tsunami in the history of human being (Rossetto et al., 2007). The earthquake that caused this tsunami was considered as the second biggest earthquake of known times, exceeded only by the 1960 Chile earthquake (ibid, 2007). Massive damages to the built environment were witnessed in the coastal cities of Indonesia, Sri Lanka and India (Fernando, 2010). The tsunami waves travelled at the average velocity of 640 km/h across the Indian Ocean (Rossetto et al., 2007).

Galle is the capital of southern province of Sri Lanka and was worst affected by the tsunami. In terms of human losses, 4,214 people were reported dead and 128,077 were reported displaced in the Galle, which is the highest in number among all Sri Lankan cities (Fernando, 2010). After emergency rescue and relief phase, government of Sri Lanka initiated permanent housing reconstruction projects through The Tsunami Housing Reconstruction Unit (THRU), which was working under the Urban Development Authority of Sri Lanka. Government of Sri Lanka also introduced a 'buffer zone' of 100 meters in the south and south west and 200 meters in the north and the east due to higher ratio of damage to life and property in these areas (Fernando, 2010). In this buffer zone, government imposed complete ban on any kind of construction. Therefore, the residents of these areas were forcibly relocated to the outside of buffer zone. To facilitate the residents of newly declared buffer zone THRU introduced 'donor built housing program' and 'home owner driven housing reconstruction program'.

The donor built housing program was initiated for the affected families who were living in the buffer zone area, prior to the tsunami. Under this program the houses were built by the donors, in accordance with the guide lines and site plans issued by National Housing Development Authority (NHDA). The donors, who has to sign a Memorandum of Understanding (MoU) with the THRU, will bear the cost of construction, basic amenities including water electricity and sewerage as well as cost of allied infrastructure including access roads, street lamps, community centre etc. The urban Development Authority was responsible to identify the suitable land for relocation under this program. The affected household had to prove the ownership of the damaged house and proof of permanent residence in the buffer zone to qualify for a donor built house in a relocated settlement.

The home owner driven housing reconstruction program was initiated particularly for the affected people who were living outside the buffer zone, and their houses were completely or partially damaged by the tsunami. These people were considered eligible for a cash grant of Rs. 100,000 (equivalent to US \$ 1000) in two equal instalments, in case of partially damaged house, however in case of completely damaged house they were considered eligible to get Rs. 250,000 (US \$ 2500) in four stages. The affected people who were living in buffer zone could also apply for these grants, but they need to construct their house out of buffer zone areas. In donor built housing program, government of Sri Lanka pledged to provide the land for construction of houses in the nearby vicinity, as majority of the affected people preferred to live in the nearby areas due to various financial and social factors; however, scarcity of government owned land in nearby areas, and lack of funds for purchase of private land, resulted in construction of new settlements in far areas.

### **Project 2: New Balakot City Development Project (NBCDP)**

The October 8, 2005 earthquake was the most catastrophic natural disaster in the history of Pakistan (Mumtaz et al. 2008, Amin and Han 2009). The magnitude of earthquake was 7.6 on Richter scale and almost the entire Himalayan region was shaken. It affected about 30,000 km<sup>2</sup> area and resulted in 86,000 deaths and 80,000 severely injuries (Mumtaz et al., 2008). More than 3.5 million people were left homeless (Mumtaz et al., 2008, Amin & Han, 2009, Halvorson & Parker Hamilton, 2010). Kyber Pukhtunkhwa (KP) province of Pakistan, and Kashmir was the worst affected areas and sustained great human and economic losses. Balakot city is located in the KPK province of Pakistan was having population of about 80,000 people at the time of earthquake. The city was one of the worst affected cities and was almost totally destroyed (Hussain et al., 2006). The earthquake's epicentre was about 30 km in the northwest of Balakot city and was located at 34.493°N, 73.629°W, on the western end of Himalayan Arc (Halvorson & Parker Hamilton, 2010).

Government of Pakistan immediately initiated emergency rescue and relief efforts, mainly organized by the Pakistan Army. Considering the massive disaster, foreign governments, international and local NGOs, civil society and volunteers also took part in emergency relief services (Halvorson & Parker Hamilton, 2010). Government of Pakistan, after completion of emergency relief and rescue phase, established 'Earthquake Rehabilitation and Reconstruction Authority' (ERRA) in 2005 (Akbar, 2012). The basic purpose of establishment of ERRA was post disaster damage assessment and reconstruction in the earthquake affected areas (Khan, 2007). ERRA in collaboration with The World Bank conducted survey of the affected area and produced a social impact assessment report. The report revealed that Balakot city is the most affected city wherein 95 percent buildings are destroyed by the earthquake (ERRA, 2007). Being situated on the conjunction of three major fault lines, Balakot city was declared as a "red zone" and 'unfit for the reconstruction' (Quzai, 2010).

As a result, local population of Balakot city needed to be relocated; therefore, ERRA instituted a new reconstruction project named "New Balakot City Development Project" at another site called Bakrial, some 20 Km away from existing abode (Quzai, 2010). This project was initiated to build new houses for 5000 families of old Balakot city, at another site called 'Bakrial'. This selected site for the project was about 20 Km away from the old Balakot city. This project was initiated in 2007 at an estimated cost of Rs. 12.00 billion (equivalent to US \$200 million), at an of 11,463 kanals of land (Sadaqat, 2012). Several international donors including Gadaffi Foundation of Libya and government of Kingdom of Saudi Arabia and government of Kuwait pledged to fund this project (Mustafa, 2012). As per plan, the project was initiated in 2007 (Sadaqat, 2012) and the completion date was July 17, 2010 (Mustafa, 2012).

#### **4. Analysis and Discussion**

##### *4.1 Project 1: Sri Lanka*

The Galle, being a coastal city and capital of the province also serves as a commercial hub, and provides wide range of formal and informal opportunities of employment to local population. Main income source of the poor residents of the disaster stricken area was fishing. The new donor built housing project areas was far away from economical hub of the city, therefore, majority of the new settlers find it very hard to get new employment in close by vicinity. To keep up with previous jobs they have to bear the daily transport cost. In addition, they also have to bear high cost of living in new houses due to having individual connections of water and electricity, which they were not having before. Clash of interest between old communities living in the area and new settlers were also witnessed during and after construction of new houses. Tension and conflicts among old and new settlers were instigated over usage of common communal services including play grounds, community centre, access roads and common land. The caste system was also one of the reasons of conflicts among new and old settlers as they were not having close relationship with each other. Majority of the new settlers were belonging to the 'Karawa' caste beside the local villagers were from 'Govigama' caste. The local villagers of Govigama caste were dominant on local businesses and were not really interested to offer employment to the people of other castes (Fernando, 2010).

Therefore due to these economic, cultural and social reasons, 78% of the affected people who got houses in newly built settlements, preferred there previous dwellings (Fernando, 2010). However, due to forced implementation of buffer zone restrictions, they could not go back to their old houses, but higher percentage of unsatisfied users shows that, this project is a failure. Dissatisfaction and lack of interest of affected community in shifting to new settlements is a result of disengagement policy of the decision makers. The affected community was not provided with any opportunity to share their requirements, preferences, and opinion (Lyons, 2009). Preparation of beneficiary list and their settlement plan was also prepared by the government officials without consultation of the affected community and various malpractices were also reported in the process of beneficiary selection and allocation of newly built houses (Fernando, 2010). Similarly, due to non-involvement of affected community the quality of construction of newly built houses was substandard and the settlers complained about poor roofing, inferior wans and poor sanitation conditions (ibid, 2010). Hence, despite of investing huge economic resources, efforts and time, project did not successfully achieved its targeted objectives due to disengagement and disregarding the preference of affected community in the project.

##### *4.2 Project 2: Pakistan*

A recent report submitted to the cabinet secretariat of government of Pakistan mentions that ERRA – the government agency who was established to initiate post-earthquake reconstruction projects in the disaster stricken area of Pakistan and was responsible for the implementation of New Balakot City Development (NBCD) Project – has the control of less than 15 percent of project land (Report 2014). Construction cost of the NBCD project has also been increased from Rs. 12 billion to Rs. 14.2 billion (more than 18 percent) (Report 2011).



Moreover, due to severe clashes among government agencies and local land owners, the work on project was also remained suspended for about a year time. The completion dates of the project were revised initially from 2010 to 2012 and then to 2013, however still the project has achieved less than 15% of its targets. Considering the circumstances in which the project was initiated, this project was having the immense importance for the affected community; however, snail pace progress, substantial delays, increase in cost, clashes among locals and project team, dearth of commitment and lack of interest of its stakeholders including, management team, affected community, government and others lead this project to a the failure (Shafique & Warren, 2015).

The old Balakot city is one of the most beautiful and scenic city of Pakistan. It serves as transit point for the tourists visiting to the picturesque valleys and mountains situated upstream of the town. The people of the old Balakot city use to earn their livings from tourism. In the summer season, a large number of local and foreign tourists visits Balakot city, which provides the opportunities of earning to the local population (Quzai, 2010). Local hotel, transport and cottage industry were making good money from tourists and were also resulting in development of the city. However, the new site selected for the relocation of the affected community was off the route of tourists (Akbar, 2012). Relocation to the new site could result in loss of earning to the local population, therefore, despite of susceptibility of future disasters, local population refused to relocate (Shafique & Warren, 2015).

Other issues faced by the project were of cultural and social nature. Residents of 'Bakrial'—the new site selected for relocation of affected community—refused to vacate their land for the project. In early disaster recovery situation, the local land owners of 'Bakrial', pledged to provide the land free of cost, however at later stage they refused to do so. This situation raised serious disputes among local population and government agencies and resulted in law and order problem causing death of one person (Pakistan, 2012). Subsequently, government of Pakistan also offered plots in new city and other monetary compensation to local landowners; but the landowners of 'Bakrial' refused to vacate the land to ERRA due to their cultural and social norms and values (Shafique and Warren, 2015). Nevertheless, after long negotiations, ERRA and provincial government paid monetary compensation to the local land owners and ERRA managed to get control of about 15 percent of the project land (Mustafa, 2012).

Political scenario of Pakistan, particularly in the province of Khyber Pukhtunkhwa (KP) has also been changed and according to Khalid Mustafa (2012) initiation of 'Hazara Province Movement' affected the interests of the ruling party of the KP province, therefore ruling party is not taking serious interest to resolve the NBCD project issues (Mustafa, 2012). Chairman ERRA has repeatedly pointed out that it is the responsibility of KP government to acquire the land for NBCD project; however, due to its vested interests the KP government is not taking any serious measure for acquisition of land (Shafique & Warren, 2015). Moreover, political instability and law and order situation of the country—particularly of the KP province—during past few years also resulted in diversion of government attention towards more immediate and important issues including Swat IDPs (Internally Displaced Persons) and floods in other areas of the country. Lack of interests of national and provincial governments in NBCD project issues is also one of the major causes of project delay.

## **5. Conclusion and Recommendations**

In view of those involved with project, success of a project is the achievement of targeted goals in accordance with predefined parameters of time, cost, performance and quality; however, end users do not necessarily have similar expectations from the project. Hence expectations regarding outcome and achievement of goals and perception of success or failure of a project will be different for each stakeholder. Post natural disaster reconstruction projects are not the exemption rather role of its stakeholders, especially participation and engagement of affected community is more significant in PDR projects. Therefore it is very important that all stakeholders including affected community should be involved in decision making process. Contemporary research has widely recommended the engagement of affected community in PDR projects; however on ground practices are different from theory and research. Therefore, despite of heavy investments in terms of financial and other resources, PDR projects are on high risks of failure. The case studies presented in this research also revealed that practitioners are not involving affected community in decision making process or at any other level of project implementation.

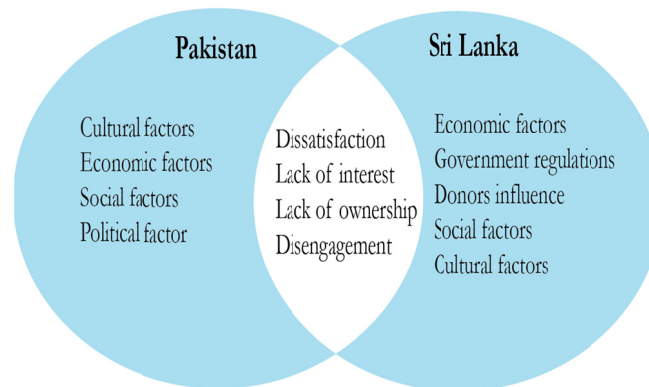


Figure 4. Factors influenced project success

The issues identified in case studies are mostly of economic, social, cultural and political nature that could easily be resolved through affective communication and involvement of affected community in decision making process. The NBCD project in Pakistan failed due to ignoring affected community's economic, social and cultural concerns. The government of Pakistan solely decided to relocate earthquake affected population to the new site without due consultation with them. Engagement of affected community in decision making process right from selection of new site for relocation could have direct effect on project outcome. Similarly, consultation with affected community in Sri Lanka for selection of land for their relocation could be the better option. Marginalization of affected community resulted in dissatisfaction and lack of interest, therefore despite of heavy investments of resources, project failed to meet the requirement and satisfaction level of the affected community.

The empirical evidences have revealed that project practitioners are not adopting community participatory approaches while implementing PDR projects in developing countries, which is the main reason of failure of these projects. It is highly recommended that affected community should be consulted and involved in decision making process. The community should be empowered and be considered as a major stakeholder in PDR projects. Effective collaboration and consultation mechanism may be established within the project and each stakeholder should provide necessary input for the project success. Interests of the community should be given due consideration and prime importance while implementing the project.

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