



Reconstruction of heritage structures in Nepal after 2015 Gorkha, Nepal earthquake

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ABSTRACT

A destructive earthquake of moment magnitude M_w 7.8 struck central Nepal on April 25, 2015, followed by hundreds of aftershocks. According to the preliminary report of the Department of Archaeology (DOA), Nepal, the earthquake affected as many as 745 monuments in 20 districts. Out of them, 193 monuments were completely collapsed, 95 monuments partially collapsed, and 517 monuments were partly damaged. The heritage sector in Nepal is assumed crucial for development mainly through tourism and employment generation and as a source of national pride as well. However, over three years following Gorkha Nepal earthquake, not many of the collapsed heritage structures have been reconstructed. Several critical questions from the people and the media have emerged in this regard. The government and concerned departments have often been asked why they have not been able to undertake reconstruction faster and to do more. This paper explains the reasons behind the slow restoration process and what has been done so far in Kathmandu Valley. Ethnographic fieldwork was carried out in the seven UNESCO listed heritage sites and other heritage areas over a period of six months. This study research shows that the delay in heritage reconstruction was primarily due to the lack of a clear and well-supported policy for heritage reconstruction; conflict on construction material to be used for reconstruction; mode of contract for reconstruction; limited governance capacity; lack of manpower for traditional artwork; and the lack of a framework to support local community-driven rebuilding initiatives. Some recommendations are made to accelerate the reconstruction of heritage structures in Kathmandu Valley.

Keywords: Heritage Structure; Reconstruction; Gorkha Earthquake; Kathmandu Valley.

INTRODUCTION

A destructive earthquake of moment magnitude M_w 7.8 struck central Nepal at Gorkha on April 25, 2015, followed by hundreds of aftershocks affecting thousands of lives, leaving millions of people homeless and causing loss of billions in sectors of housing, infrastructure, economy, culture and many more. The Gorkha earthquake had a major impact on cultural heritage, where hundreds of monuments completely collapsed and many were badly damaged including palaces, temples, monasteries, chaityas, bahals, sattals and patis [1-4]. According to the preliminary report of the Department of Archaeology [5], Nepal, the earthquake affected as many as 745 monuments in 20 districts. Out of them, 193 monuments were completely collapsed, 95 monuments partially collapsed, and 517 monuments were partly damaged. The report revealed that 444 monuments were affected within the Kathmandu Valley only, out of which 83 monuments collapsed from the base [6,7]. UNESCO world heritage sites: the three Durbar Squares of Kathmandu, Patan and Bhaktapur, Swayambhunath, Boudhanath, Pashupatinath, and Changu Narayan had also encountered the damage ranging from minor to severe in different structures.

Heritage structures built in ancient time in Nepal are traditional and monumental structures with historic and archaeological importance. Most of the heritage structures in Kathmandu Valley have brick masonry as the principal load-bearing structural system [6,7]. Many studies of the past earthquakes show that brick and stone masonry structures have suffered the maximum damage in moderate to severe ground shakings. This is because of their heavy weight and large stiffness resulting in short time periods and large amplification of short period waves in the earthquake motions. On the other hand, masonry has very low tensile and shear strength and fails in a brittle manner [6, 8].

Some authors have studied the performance of heritage buildings in Kathmandu Valley based on site-specific ground motions [6-9]. KC et al. [6] reported that the performance of heritage structures was influenced by the combination of several factors, including structural and architectural type, configuration and structural deficiency, local site effects and ground-motion characteristics, age and maintenance level, material quality, etc. It was observed that dome structures performed relatively well, followed by pagoda (tiered temple), and Shikhara structures were found as the most vulnerable structures [6, 10]. Moreover, it was observed that structures that had been seismically retrofitted and well maintained appeared to perform well.

In the earlier article, authors have elaborated on the performance of heritage structures in Gorkha earthquake, where it explored the structural vulnerability and lack of regular maintenance of such structures as the major issues. However, the mode and challenges of heritage reconstruction are yet poorly understood.

Right after the few months of the earthquake, the Government of Nepal had set the independent body-National Reconstruction Authority (NRA), which basically looks after all the reconstruction and rehabilitation process in different sectors. After more than 3 years of reconstruction, on a presentation made by NRA on December 25, 2018, 27% of the reconstruction had been completed where more than 32% was yet to start. NRA sets the target of completing the heritage reconstruction by 2021. Since the target of completing the whole reconstruction process in less than 3 years doesn't seem impossible, it's definitely ambitious, with the existing procurement policy, lack of technical equipped resources and other hassles involved. The status of heritage reconstruction is presented in Table 1.

Table 1 Status of Reconstruction of Heritage Structures [11]

Affected by earthquake	Completed on process		On process to be started		To be started		Future target number		
	Number	%	Number	%	Number	%	FY 18/19	FY 19/20	FY 20/21 (First Quarter)
753	201	27	309	41	243	32	50	75	100

The Gorkha Earthquake has not only affected some major heritage structures but some historical settlements were also destroyed including certain cultural artifacts and elements from monuments and historic houses were displaced [1-5]. The destruction also had repercussions on the intangible heritage, which includes festivals, daily rituals, as well as the traditional way of living that characterizes Nepal's culture linkage with community people. The study explores the different impacts of such heritage destruction and challenges in the reconstruction process of such heritage structures.

RESEARCH METHODOLOGY

Reconstruction process has started from different stakeholders in different levels for the last three years, but the majority of work is still remaining in heritage reconstructions. In order to understand the delay in reconstruction of heritage structures, the study was carried out to explore different dimensions of the process from different perspectives. Several field reconnaissance were carried out by the authors at the heritage sites in the Kathmandu Valley after the 2015 Gorkha earthquake, and the observations were explored and analyzed. Authors have also been involved in the ethnographic methodology in preparation of this study, where the author has participated in different events organized to advocate and revisit the reconstruction technology adopted in the heritage structures. In this last 3 years, authors have closely worked with enthusiastic professionals and community mobilizers in the heritage reconstruction and shared views with the close colleagues who are working from the bureaucratic level in the reconstruction process. Series of interviews (formal and informal) were conducted with the bureaucrats, community members, social leaders, heritage lovers, experts in the field, members of the concerned associations (Architects, heritage society, etc.), photographers and residents of the nearby localities to gain a better perspective. The study also drew information from multiple sources including bibliographic and archival sources, local and national news publications, interviews of engaged stakeholders, legal advocacy made by pro-heritage people, the opposition made by local representatives and experts, and daily vendors in the heritage sites.

Considering cultural practices associated with such structures, authors have participated in different rituals and processions in order to understand the core values and customs of those practices and their link with the respective structures. The objective of this process was to record the perspective regarding heritage reconstruction from different stakeholders and analyze it in the most possible unbiased approach. The paper discusses the challenges and issues of heritage structures from the perspective of different stakeholders where it summarizes the study in sub-topics and offers some critical recommendations gathered from different corners.

POLICY AND PARTNERSHIP

In different policy papers, the Nepal government has identified community leaders, government bodies, private sectors, and donor agencies as the partners in reconstruction. Guiding papers in the heritage sectors had the vision for the culture sector, "to restore and rebuild damaged built heritage and to safeguard the cultural continuity of the affected communities" [11]. Such policy required the integrated approach to ensure the rehabilitation of both classified monuments and traditional living

environments, along with intangible dimensions of living heritage, including festivals, processions and ceremonies, and traditional cultural celebrations. Government of Nepal (GoN) has identified the role of communities in the rehabilitation of such sectors through motivation and sense of ownership in different hierarchy whereas Department of Archeology is the concerned line agency which takes care of all the policy and parameters in the reconstruction of heritage structures. It is of utmost importance that reconstruction of such structures comes up with the authenticity of materials, design, technology and traditional craftsmanship, along with safeguarding the knowledge and history associated with such structures.

Right after the earthquake, the Government organized an international donor gathering for the support of the reconstruction, where different stakeholders: Bilateral Aids, International NGOs, and nations came together to support the reconstruction. Some foreign reliefs had put their special interest in reconstruction of major heritage sites where Kathmandu durbar square is largely taken care of by the Chinese and US Aid, Patan Durbar Square is receiving fund from Japanese Government and is coordinated by KVPT (Kathmandu Valley Preservation Trust) and Bhaktapur Durbar square was set to receive German Aid, but couldn't happen because of a set of conditions as international tenders and experts put forth by donating partners. Apart from these, DoA is the solely responsible organization and carrying out reconstruction works in major sites. In the reconstruction process, different partners have different roles to play. Some partners as central government and NRA are responsible for funding whereas some like DoA is required to moderate the policy to assure the ethical reconstruction and monitor the progress, whereas local bodies have an important role in monitoring and evaluating the reconstruction pace and quality [12, 13]. At present, very less attention has been paid in coordination amongst the partners involved in the reconstruction whereas channeling the needful assistance for proper reconstruction is also equally needed. Some heritages are still to initiate the reconstruction process wherein some case some partners are terminating the project because of lack of the project direction.

STAKEHOLDERS INVOLVED

Reconstruction of the heritage involves a large range of stakeholders- local leaders and community members to experts from UNESCO and foreign Aids. It is equally important that such heritages are owned and safeguarded by the participation of community members and social leaders, reconstructed and restored with internationally accepted norms and methodology. Some visible stakeholders in heritage conservation include DoA, Heritage Society, Architects Society, Nepal Tourism Board, Municipal governments/departments, Conservation Area Management Authority, Businesses groups, Academic Institutions, Civic Societies, development partners and agencies, National and International NGOs and infrequently other individuals as well. It is also important that each stakeholder have their own interest "to include archaeological objects and sites, presentation of people, place, and culture; infrastructure development and service provisions," and more [14]. In the midst of interest of such a large number of stakeholders, sometimes fundamentals of heritage reconstructions are often ignored by overlooking the voice of Local People and protests from such community hinder and delay the reconstruction process. A similar case has been observed in the case of Rani Pokhari and in Kasthmandap. With the local government being sovereign and authoritative, roles and responsibilities of such government have increased, but the inability to hold the confidence of local people has backfired the conservation governance. Most of the reconstruction works of heritage structures have been handed over to the local government, whereas even other international and national agencies have to work together with local government.



Figure 1. (a) Traditional Dyocha soil mortar replaced by the lime-mud mortar and (b) place for the yahsin has been taken by some new engineered element at Bouddha Stupa. (Source: From the Facebook post of Dr. Sudarshan Raj Tiwari)

Apart from the line agencies and authoritative bodies such as a municipality, DoA and NRA, role of civil society, professional societies and experts and enthusiast of heritage construction is widely observed in the process. Academician and Heritage expert, Prof. Dr. Sudarshan Raj Tiwari has been continuously warning the unethical reconstruction process of heritage structures (Figure 1a&b), Architect Alina Tamrakar is regularly updating her social media posts with new updates and process of culture and heritages, Media Photographer Alok Tuladhar is regularly keeping the documentation of such

structures, Advocate Sanjay Adhikari has been involved from the legal perspective, similarly Nepal Heritage Society and Society of Nepalese architects (SONA) has been regularly alarming the situation to its members and larger community. Some names and institutions involved are just some glimpses of the pictures in the scenario of the last three years where various protests and rallies have been organized in ensuring the noble reconstruction of heritage structures.

POLICY REFORMED IN HERITAGE STRUCTURES

Existing policy and guidelines in case of heritage reconstruction in Nepal are very weak and procrastinating. After the rigorous discussion with stakeholders and advice from experts, the government has enacted the 'Basic Guidelines on Conservation and Reconstruction of Heritages Damaged by Earthquake, 2016'. The guidelines classify the physical cultural heritages into three types — heritage site, monument, and object, for the ease of reconstruction and conservation of the structures. As per the "Ancient Monument Preservation Act-1963"- the comprehensive policy document for heritage conservation in Nepal, most of the classified structures fall under the responsibilities and jurisdiction of DoA, where it can collaborate with other national and international agencies, local government and other stakeholders. DoA is also liable for granting approval of reconstruction and renovation of heritage structures to the concerned stakeholders. NRA has also identified the necessity of guaranteeing customary approaches to the restoration of heritage sites, monument and objects, through revised and reformed legal framework. While the National Reconstruction and Rehabilitation Policy have laid the foundation, the Department of Archaeology has adopted the "Post Disaster Conservation Guidelines 2072 [15]" and has prepared "Post Disaster Rehabilitation Procedures 2072" to provide specific guidance on the restoration of cultural heritage sites and monuments [11]. The Earthquake Response Coordination Office (ERCO) established at the Department of Archaeology with financial assistance from UNESCO and technical support from ICOMOS Nepal, has prepared rehabilitation strategy for the culture sector comprised of five main categories of approaches: legal, research planning, project preparation, and data management [11]. With some attempts made to make the reconstruction process smooth, there still exists a big gap in planning, procurement, and implementation.

CASE STUDIES

Kasthmandap

The structure with historical and communal value at the heart of Kathmandu, Kasthmandap has been exemplary in many senses to analyze the heritage reconstruction. Stakeholders involved in the reconstruction of Kasthmandap ranges from International community to the central government to local government and community people. Detailed Structure damage assessment of the structure was carried out by the team from Durham University, which hinted the date of construction of the temple to be around seventh century CE, which is older than the assumed twelfth century. Reconstruction of the Kasthmandap is critical in many dimensions as the biggest Metropolitan city of the nation is directly involved in the project and the Department of Archeology has a crucial role to play. The design and construction drawings of the Kasthmandap were shared for the public display, which was reviewed with some comments.

On May 12, 2017, NRA gave the authority to reconstruct the Kasthmandap to the local government, i.e. Kathmandu Metropolitan City. Kathmandu Metropolitan City agreed to manage the required budget where DoA had to avail the required materials for the heritage reconstruction. The model of reconstruction was unique in the sense that local people were promised to be involved in the reconstruction process rather than the bidding process. Common people to experts from different corners came together to review and refine the project with respect to its cultural and physical nexus. However, KMC is having a hard time coordinating with the local people and the reconstruction process has been delayed due to lack of coordination amongst the stakeholders.

Rani Pokhari

Even after more than 3 and half years of initiation of the reconstruction process, Rani Pokhari can be regarded as the most out skirted heritage project, though resting at the core of the capital. The urban pond with heritage structure at its center has observed the changing rulers of Nation since the Malla era in 1670 to Republic Nepal. A temple dedicated to the Hindu god Shiva stands at the center of the pond with 4 other temples, one at each corner of the rectangular pond premise. The reconstruction of the Rani Pokhari doesn't only involve the reconstruction of the temples within the territory rather dominantly involves the technology used in the restoration of the pond. Even in the reconstruction of the center temple, experts are divided in terms of time-bound authenticity of the structures. Some experts consider it to be the right time to recover Malla Era Granthakut Model of the temple where some believe that it is not fair to ignore the 150 years older Rana-era model.

The major implementing agency, KMC proposed a bizarre ambition of developing the urban body as the theme park with food courts, bright lighting, amphitheater, and fountains. Reconstruction of the Rani Pokhari grabbed the attention of community people and heritage conservationists when KMC decided to reconstruct the whole Rani Pokhari region with

general procurement process and use of concretes in reviving the pond. DoA in the entire occasion has been presenting themselves as only advising body with limited authorities. Procurement Experts and Conservationists are skeptical about the intention of renovating the pond which was slightly affected by the earthquake with modern technology, which might have involved bureaucratic corruptions held during the procurement of the work. The construction has been delayed amidst the dissatisfaction from stakeholders (Figure 2 a).

Bhaktapur Municipality

One of the oldest and historical cities in Kathmandu Valley, Bhaktapur city is renowned for its heritage conservation and its practices in heritage conservation through a community approach. According to Bhaktapur Municipality, the total number of heritage structures destroyed were: 172 temples, 37 sattals, 256 patis, 88 stone spouts, 252 wells, 36 ponds, 29 monasteries, and 116 other heritage monuments. In this scenario, Bhaktapur municipality has completed the majority of reconstruction work through the community approach with DoA helping with the technical and financial assistance, whereas the majority of decisions are carried out through the municipality with extensive community participation. The municipality has also initiated the training of masons and carpenters in the process and has become the major supplier of traditional techniques and elements for the reconstruction in other parts of the valley as well. One of the most interesting aspects of the heritage reconstruction in Bhaktapur is the procurement that's followed in most of the projects whereas the municipality is taking lead in the majority of projects where Turn-Key contracts are often avoided and community participation is encouraged. The municipality has also opted out from the millions of euros of the grant from German Government, where the grant had a conditional clause for international tendering whereas the municipality didn't want to involve the foreign experts in the core implementation.



Figure 2. (a) Protest during Rani Pokhari Reconstruction (Source: The Kathmandu Post) and (b) Use of Concrete Post and Brick in Pati (Credit: Ar. Anil Tuladhar)

CHALLENGES OF RECONSTRUCTION

Each individual heritage reconstruction is challenging on its own political correctness, technical difficulties, incompetent implementation governance, weak historical records and intermittent supply of resources. With the devastation of this scale, no governing body was prepared for such quality and quantity of reconstruction work. It was nearly impossible for Department of Authority to carry the entire process but in the mean, while it's been working as the major custodian and implementing agency from the government. The major authority and responsibility of the department include investigating the damages, planning the reconstruction process, managing the resources, implementing and monitoring the reconstruction process. Challenge for the coordination amongst different stakeholders has been new to the department where lack of proper recording mechanism delayed the process. With a positive approach forwarded by DoA in coordination with NRA, there are still technical, bureaucratic and practical hassles in the reconstruction process. However, it will be quite a blanket approach to explore the challenges of heritage with a single perspective but some of the major issues are highlighted below.

Materials and Technology

Inconvenient access to local materials and technology has been one of the major challenges in the reconstruction process. One of the most important materials in the Nepalese traditional architecture is the Sal Wood, and Surkhi Mortar, of which availability is rare and erratic in quality in present time. Reconstruction of the heritage structures of this scale is challenging in its own and the government was not prepared for such incidents. Carpenters, Sculpture artists, skilled masons, and other skilled manpower are also scarcely available for this scale of reconstruction with mud mortar and wood whereas it's always quicker and easily available for the modern construction dominated by materials like concrete and steels(Figure 2b). One of the project architects working in the reconstruction of Rani Pokhari mentioned that "We can't find project manager with such work experience, who can genuinely supervise the construction work with required authenticity". The scenario explains the

unavailability of the technical manpower and supervision efficiency of traditional technology to be implemented. In response to these issues, some experts also take the scenario as the right time to replace traditional techniques with modern technology, mentioning the aspect of safety and ease of reconstruction. However, the integration of modern materials and elements in the historic edifices leads to loss of the former authenticity.

Exclusion of community participation

Reconstruction of heritage structures in Kathmandu valley has been the center of dissatisfaction because of its unresponsive character towards community participation and social inclusiveness. A local government which is entitled to the reconstruction is being criticized for being responsive to donor agencies and inter-governmental agencies rather than the inhabitant people. Similarly, after the delayed reconstruction process and mistrust towards the implementation agencies, the local community came together to self-organize and create locally based structures, focusing on their community heritages: like Sattal, Pati and temples. After exactly two years of Gorkha Earthquake, local community around the vicinity of Kasthmandap gathered to form the "Campaign to Rebuild Kasthmandap", where very soon four party agreements were signed between NRA, DoA, Kathmandu Metropolitan City (KMC) and the campaigners, handing over the reconstruction process under direct participation of the campaign [16]. Few days after the agreement, locally elected local government was established and Mayor of KMC enforced that the reconstruction is to be carried out under direct supervision of KMC, which has delayed the reconstruction process till date. The case of the Rani Pokhari is similar, where self-organized volunteer protesters gathered to suspend the reconstruction process which basically used concrete and steel, causing adulteration to the genuineness of the pond (Figure 2a). Such case has been observed in many other similar heritage reconstruction processes where communities did not trust the government-appointed contractors and demanded more direct participation in the restoration process from the community. In this scenario, where the majority of restoration projects are becoming battlefields between stakeholders and community, seeking to resume their roles and ownership, some voices from within the DoA, academics, and experts have argued for an alternative point of view on the prevalent approach of conservation in Nepal as a whole. It is obvious from the perspective of the local community that some heritage structures in Kathmandu Valley have been reconstructed by the naïve contractors in the field of heritages resulting in modified and non-original structures, which ultimately links with the loss of history, knowledge and material authenticity of such structures. Likewise, local government believes that distrust from the resident community has delayed the reconstruction process and is not helping in any way.

Modernism versus Conservation

One of the major challenges of reconstruction has been the ambition of local leaders to project the heritage as an entity of modernism. In the most blatant manner, most of the reconstruction projects are treated in a manner of modern construction and reflection of market-oriented development. Reconstruction of heritage structures within Kathmandu Metropolitan City (KMC) is described by two stakeholders in conflicting direction. Mayor of KMC blames the delay caused in reconstruction because of obstruction by locals and heritage conservationists, whereas Heritage experts blame KMC for the unethical reconstruction process. It is interesting to observe that KMC has changed the local bylaws in conserved heritage zone to be more amiable for a capitalist perspective. The government has recently allowed the basement construction within the heritage zone and changed the permissible height of building to be 65 feet than earlier 35 feet. Prof. Dr. Sudarshan Raj Tiwari, architect, and heritage experts explain the risks associated with the water conduits within the region and vulnerability to the existing structures because of basement construction and increased traffic due to commercial activity within the region.

Ineffective Institutions

The restoration and reconstruction of several individual monuments with their own historical and social importance are under local government bodies. Weak conservation governance resulting in a lack of coordination among major stakeholders has been observed in this whole process of reconstruction. Experts have pointed the inefficient and inadequate resources and mechanism of DoA for looking after the heritage construction and conservation long before the earthquake. As projected, DoA; the only center organization to look after the reconstruction was not prepared for this scale, in terms of resources required, documentation, policies, and coordination amongst the stakeholders. Similarly, local authorities had not really understood the soul of reconstruction of heritage structures which resulted in altering decision by such authorities. The bickering amongst the participating bodies has resulted in ineffective development in the reconstruction.

Status quo Procurement

According to recent data from DoA, more than 50 reconstruction projects for heritage structures have been granted whereas renovation work for 42 heritages is already awarded. Such structures include the large range of community heritages structures to heritages of global importance as Anantapur in Swayambhu, Taleju, and parts of Hanumandhoka palace in Kathmandu Durbar Square, Jaisidewal, and Fasidaga in Bhaktapur. UNESCO expert and practicing conservationist architect Mr. Kai Weise believes that the tendering process explains the amount needed to be spent on each monument for optimum reconstruction but not ensures the ethical reconstruction of structures of historical importance. Heritage conservationists and

historians are convinced that the reconstruction of heritage structures needs to be "Artisan Driven", unlike the trend of contractor-driven reconstruction which is often established on Low cost of bidding. While preparing the contract, documents including the Bill of Quantity, Engineers, and architects are not completely aware of the amount of work required to uphold the intricacy required in reconstruction. Government officials blame the existing procurement laws which limit their ground understanding of reality in workmanship and materials required in reconstruction of heritage.

In the policy document of NRA, the government has acknowledged the limitation in the procurement procedures for materials required in traditional construction methods [11]. Insufficient supply of some important materials like hardwood timber needs to be imported, which needs to have special strategies in procurement, whereas traditional bricks and tiles for reconstruction requires quality control and subsidies in production. Existing procurement laws gives eligibility to the contractor up to NRS 20 million works, even without basic knowledge about heritage, sometimes resulting in loss of historical pieces of evidence which ultimately leads to misconduct of the project. Procurement act in Nepal is incompetent in many ways to speed up the construction works, whereas shortcomings in the procurement of heritage structures give loopholes for unethical reconstruction in such important works.

RECOMMENDATIONS

The reconstruction and rehabilitation of the cultural and heritage structures must ensure that communities have the ownership and provocation to rise from the emotional and physical pain and have a sense of togetherness in the process. Reconstruction of the heritages are not only linked with the economic and touristic calculation, but it's important to transfer the knowledge and skills acquired from our history to future generation as a means of cultural continuity and social practices. Hence, it is of utmost importance that reconstruction of heritage structures progresses with focus on authenticity in materials, design, technology and traditional intricate craftsmanship. Moreover, a various geotechnical condition in heritage site should be investigated which has been overlooked [17-21]. Based on the challenges and different scenario of the reconstruction process occurred, some general recommendations are made:

1. Community participation is the core of heritage reconstruction. Especially in case of reconstruction of heritage like in Nepal, where such structures are directly linked with the day to the day lifestyle of the people, such heritage structures need to be reconstructed with full participation of local people with devolving them the authority and handing them the sense of ownership of the heritage.
2. It is very important to understand that heritage reconstruction is not a construction assignment rather a conservation project to be completed. One can't expect the construction of Kasthmandap to be authentic and reflective of the cultural core with a similar procurement system that allows any commercial project to complete. Procurement for the heritage reconstruction needs to be treated with special attention and monitoring of such a project needs to be verified in a timely base with public concern.
3. It is important that there's proper coordination amongst the stakeholders involved in the project, which avoids the duplication of the resources and ensures the regular and incessant supply of resources. It is also important that central coordination system is well established to moderate the policies and coordination amongst the partners involved in the reconstruction of such heritage.
4. Heritage reconstruction is a challenging job because of its character which involves rigorous effort, time and cross-validation of authenticity. It is also important that these structures not only bear the economic values in terms of tourism but also the historical and cultural essence of the particular community and whole nation. It is of utmost importance that the reconstruction of such heritage structures is carried out in the most possible honest way and as per the international charter associated with such.

CONCLUSIONS

Apart from the technical problems of manpower, technology, and procurement, the major problem in delay of reconstruction has been observed because of political dividedness with and ownership in the reconstruction process. At the fundamental level, it is important to answer some basic questions as "Whose Heritage?", "Whose responsibility in Reconstruction?", "Authenticity of Reconstruction" and "Future owner of these heritages". If these questions are collectively addressed and a common agreement is made in these questions or issues, then it's not hard to come together for policies, procurement procedures, and working methodology.

Now, not only the classified UNESCO heritage must be taken care of, but also traditional settlements, along with local customs and lifestyle, need to be restored throughout the affected districts. The potential long-term impact of the destruction of the earthquake would be the loss of vulnerable tangible and intangible heritage that is not identified and safeguarded. The displacement of communities and the reconstruction of dwellings could lead to the loss of identity of traditional and historic settlements. The impact of the earthquake could be an opportunity to test the resilience of traditional communities and of cultural heritage. It would also rejuvenate communities with renewed involvement in the care and maintenance of their

traditions and heritage. Reconstruction will also lead to the renewal - and in some cases revival - of traditional skills. Thus, such opportunities must be taken seriously and integrated into the rehabilitation process [11].

Reconstruction of the heritage has come up with a series of issues and challenges from different sectors and corners. Be it quite technical or from a political perspective, be it social perspective or cultural, reconstruction of heritage structures is a multi-faced process. With the bulk of issues and challenges, there's a positive side in this process as well. A young architect who has participated in the reconstruction process believes that the protests associated with the reconstruction have broadened the sense of ownership to the local people, especially in young generations. The reconstruction process is also a crucial mean of documentation of heritage structures, which would have rarely taken place. Delay in reconstruction is a result of ineffective reconstruction governance, status quo procurements and unavailability of resources, but the process has broadened the sense of ownership towards heritage structures in general public and ignited the need of authentic reconstruction. The process is judged, explored and explained from the perspective of different stakeholders with their own interest, it is of utter importance that there's the balance between the conflicting interests of different stakeholders and balance amongst conservation and development works.

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