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Assesment of Community Participation in Post – Flood Disaster Housing Reconstruction in Lokoja Kogi State, Nigeria.

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ABSTRACT

The post-flood disaster reconstruction is a process different from conventional construction because various measures are put into consideration following disaster occurrence. Most of the time, the effectiveness of emergency relief efforts are usually recorded but different from post – flood disaster projects. Data collection was done through a self – administration of structured questionnaires to 159 flood victims involved in the reconstruction projects. Findings indicated that community participating in in resource mobilization was not considered relevant due to misplacement of reconstruction priorities. This study is important as stakeholders like victims will have a more resilient housing, the government will be updated with strong strategies to solving resource mobilization and reconstruction problems, and donor agencies will have value for their money.

I. INTRODUCTION

Reconstruction resources required for to carryout projects are almost difficult to obtain when compare with conventional projects. Sulzakimin etal 2020, expressed that in the event of a large scale disaster, it is likely to observe that the largest portion of local production facilities and supply systems in production industries are damaged. And the construction industry becomes disordered, damaged, disputed and unfriendly. In the same vein, Barenstein (2010) reported that large scale reconstruction place great demand on natural resources for building materials, specifically in relocation patterns.

According to Singh and Wilkinson (2008) stated that mobilizing resources for post flood disaster housing is especially difficult at the initial stage but normalizes as time passes by. It is in the light of this, observation that several authors suggested if reconstruction resources are not properly planned it will truncate the effectiveness of reconstruction after disaster.

In post – flood disaster recovery, housing reconstruction is a vital element, and therefore the need arise to know what make reconstruction effective and what make it ineffective. According Chang etal 2011, reconstruction actors are needed to adapt themselves to the emerging resource circumstances in post-flood disaster. Giving adequate attention to key factors and components in resource mobilization regarding housing reconstruction after disaster will be an appropriate strive in the right direction as calls for such undertaken has been made in recent times. The acknowledgement of Sulzakimin etal 2020 revealed that regardless of the relationship existing between resource mobilization and reconstruction performance, little attention have been made in the area of research on proposal method to enhance the management of resources for reconstruction projects. This necessitate to study on resource mobilization strategy adopted in post-flood disaster housing reconstruction project in relation to the level of community participation with a view to identifying the necessary resources needed for post-flood disaster housing reconstruction and the method of mobilizing such resources to minimize the issue face by flood victims in Lokoja metropolis. The availability of reconstruction resources has been recognized by a number of scholars as a driving force necessary for successful reconstruction projects (Tukel and Rom, 1998 Bassioni etal 2004, 2005).

II. LITERATURE REVIEW

RESOURCE MOBILIZATION FOR POST-DISASTER RECONSTRUCTION

Resource mobilization is the process of getting resources from resource provider, using different mechanisms, to implement an

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organization pre-determined goal. It also involves making better use of, and maximizing, existing resources (Seltzer, 2014). Resource mobilization deals with acquiring the needed resources in a timely, cost-effective manner. Resource mobilization advocates having the right time, at the right price with making use of acquired resources thus ensuring optimum utilization of the resources (Seltzer, 2014).

Resource mobilization broadly encompasses a wide range of activities that have a bearing on resource management for post-disaster reconstruction projects, embracing pre-event resource planning and preparedness, resource procurement, resource delivery, and the development of resource alternatives. Conventional measures have been employed in past reconstruction practice to address the resource mobilization problems, such as new investment in production (Jayasuriya&McCawley, 2008), and importing resources from outside of the affected areas (Walker, 1995;Zuo et al., 2009). These adhoc arrangements after disasters seem to be unable to perform well to alleviate resource shortage in the long run (Jayasuriya&McCawley, 2008), the inadequacy of efficient and flexible institutional arrangements (Sullivan, 2003) and lack of proactive engagement of the construction industry into disaster management (Lorch, 2005; Pheng et al., 2006, Bosher et al., 2007) are underlying contributors to undermining resourcing performance with post-disaster environment.

Post – flood disaster housing reconstruction that is not appropriately planned has the potentials to create more exposures in the disaster stricken community. This stresses a warning that the importance of resource mobilization for post-flood disaster housing reconstruction cannot be overemphasized (Sulzakimin etal, 2020). Some possible consequences of ineffective resource management in post – disaster reconstruction projects motivated scholars to further elucidate on the important roles it plays in the cycle of disaster reconstruction and recovery (Zekeri, 2021).

In the post – flood disaster reconstruction conditions, mobilization of resources is influenced by certain factors. According to Sulzakimin etal 2020, the five factors influencing resource mobilization in post – flood disaster housing reconstruction are the ranking order of tasks or works, the capacity to pool resources, the prime period of procurement, the preventing contractual arrangements and transportation in and out of the affected region. Singh etal added that the mobilization of resources is determined by the government policies and strategies laid down by the decision makers or professionals responsible for the reconstruction.

In this study, resource mobilization for post-flood disaster housing reconstruction is divided into the following headings: i) financing (ii) land provision for reconstruction (iii) labour provision (iv) materials provision.

Mobilizing Financial Resources

The allocation of post-disaster housing reconstruction financing in developing countries are from donor agencies (Freeman, 2004). Many poorer countries are reliant on external assistance in the form of loans and grants to meet their post-disaster reconstruction needs when disaster strikes, the government authorities involved in the reconstruction program may look for funds from various sources. Some of these include; borrowing either domestically or externally, seeking for technical assistance, as for grants from other countries and established institutions (Makhanu, 2010). When there are no properly organized, then there is always a delay in planning of reconstruction, which increases suffering and other destruction. It is therefore imperative that resources are availed at the proper time in order that there is an effective and efficient reconstruction program (Makhanu, 2010).

Without financing, post-disaster reconstruction cannot take place. A god housing reconstruction financing effort is one that is efficient, transparent, and firmly directed toward realizing the physical results envisioned in the reconstruction policy (Fengler, Ihsan& Kaiser, 2008).

Microfinance institutions in reconstruction

The principle of microfinance in housing reconstruction is reactivating the local economy. This is because these institutions are often the principal source of credit for the livelihood activities of low-income disaster affected households (CGAP, 2005). Few micro-finance have the capacity to finance housing reconstruction, however, they commonly finance microenterprise that are based in the home and provide income that will make housing reconstruction possible (CGAP, 2005).

There are significant risks for microfinance institutions operating in post-disaster reconstruction situations (ICRC, 2009). Funders should not pressure microfinance with housing reconstruction lending targets, for example. Some recommended guidelines for microfinance under these conditions, which agencies supporting

microfinance institution activities should also understand, include the following.

- Avoid activities beyond the normal capacity and mission, such as giving medium-term loans to rebuild assets if they have not been provided before
- Wait until emergency is over to assess client's property damage and credit standing before making reconstruction loans for purposes that don't generate cash income.
- For disaster-affected clients with loans outstanding, microfinance institutions may adjust savings requirements or reschedule loans, but should avoid subsidizing interest rate or providing other forms of economic relief, to avoid sending mixed messages to clients and damage the credit culture.
- Adjust services to a client circumstances, since some clients will be more severely affected by a disaster than others.
- Process insurance claims quickly to give clients access to emergency cash, while screening out false claims (for microfinance institutions with insurance programs)
- Enter new areas to provide emergency financial assistance with caution, and explain the microfinance institutions purposes clearly, so the microfinance institution is not viewed as a relief agency or donor program (Stuat, 2010).

Lending and Bank Servicing in Reconstruction

Providing credit for post-disaster housing reconstruction can be done through the banking system or administered by government. Use of credit is more common in countries with good insurance systems, where insurance proceeds provide the bulk of the housing reconstruction funds. Demand for credit is likely to be greater in urban housing reconstruction, where incomes are higher and because multifamily housing is difficult to rebuild without it (Rauch &Scheuer, 2007).

Banks or government may provide reconstr4uction credit. Governments with experience lending to a population similar to the affected by a disaster are in the best position to provide credit for reconstruction. Unless potential borrowers' income is unaffected by the disaster, bank should not be pressured to provide credit for reconstruction under conditions that expose them to unacceptable risks, without government guarantees or other risk reduction strategies.

Banks may play other roles in reconstruction finance, such as in safely delivering housing assistance. They have experience handling large quantities of cash and have financial control in place. Care should be taken to ensure that banks are experienced or properly prepared to administer reconstruction finance, whether they are providing credit, or simply acting as an intermediary for the delivery assistance (Savage, 2006).

Bilateral funding arrangements

Bilateral funding agencies are governments or institutions which are friendly or on understanding terms to each other and can enter into agreement or arrangement to support a needy country or institution with funds or aid on the basis of their own agreeable terms and condition between them (Makhanu, 2010). Bilateral funding or aid, usually refer to the assistance in loans in the form of grants or technical assistance given directly from a donor government to a recipient country. The donor government may provide this assistance directly to the recipient government or to nongovernmental organizations (NGOs) operating in the recipient country. This aid is sometimes managed by a government agency charged with this task (Makhanu, 2010). The arrangement of disbursement of the assistance therefore would be between a donor government/agency and the recipient country or through an agency operating in the recipient country.

Some of the examples of the bilateral agencies include:

- **African Development Foundation (ADF):** This is a principal agency of the United State government supporting community based self-help initiatives to alleviate poverty and promote sustainable development in sub-Saharan Africa.
- **UK Department for International Development (DFID):** UK government department responsible for promoting development and poverty reduction mainly in poorest countries in Asia and Sub-Saharan Africa as well as in Latin America, the Caribbean and elsewhere.
- **United States for International Development:** US government's agency providing humanitarian assistance around the world supporting US foreign policy goals.

Multilateral agencies and funding arrangement

Multilateral agencies are those institutions, which are multinational and collect resources from multiple countries and redistribute such resources to the recipients. Hence multilateral funding or aid involve multinational assistance which is administered by international institutions such as World Bank (WB) and International Monetary Fund (IMF) that collect resources from multiple member countries and redistribute them to

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recipient countries (Preston, 1999). Multilateral support involves certain regulations and/or conditions which a recipient country must fulfill in order to and observe, such as becoming a member state or affiliated to such international organizations in order to benefit from their collective resources.

One notable example of such conditions, which are closely associated with the IMF and World Bank is the so-called Structural Adjustment Programmes (SAPs) that were implemented in the developing nations by the funding institutions, and designed to alter existing social economic structures with the aim to correct the imbalances in economic development. Some examples of multilateral agencies include: United Nations Development Programme (UNDP), European Commission (EU) and World Food Programme (WFP).

Grants and grants-in-aid

A grant is a form of assistance usually financed in nature, the benefit of which is non-repayable. It is given by one organization to another to encourage it to undertake or continue activities that it would not (or could not) otherwise do without that support (Makhanu, 2010). Alternatively, a grant may be used to persuade the organization to refrain certain activities. Grant can be distinguished from other forms of finance available to individuals of organizations by the fact that the grantors decision to support and organization is made without the need for commercial gain (World Bank, 2010). Over recent years there has also been a trend to see grant being offered to encourage public private sector cooperation rather than offering public support to encourage companies to undertaken projects they might not otherwise do.

A grant-in-aid is also a form of assistance, which is non-repayable but pegged on some agreed conditions. If the conditions are flouted, then the grant-in-aid is also a form of assistance which is non-repayable but pegged on some agreed conditions. If the conditions are flouted, then the grant-in-aid becomes repayable. Grants-in-aid are common between the most developed countries and least developed countries. The least developed countries are given financial or technical support but given conditions so that the support is not diverted to non-prioritized areas or other priorities.

Land Provision for Reconstruction

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 that is preparedness, relief, recovery, and housing reconstruction, a land is fundamental requirement. The scholarly literatures often indicate that access to land, allocation of land and land tenure security is a critical factor while building resilience and reducing vulnerability in post disaster setting (Charoenkalunyuta, 2011).

Land governance plays a vital role in post disaster housing reconstruction. 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 and conflicting interests (Deinuger et al.., 2010). It is also about the power play on access to and use of land reflected in the rules and regulations (Palmer et al.., 2009).

For effective post-disaster hosing reconstruction, it is important to secure land right and develop sustainable strategies to reduce the land tenure related impacts of future disasters (USAID, 2014). While providing shelter assistance is one of the primary focuses on post-disaster programming, humanitarian response teams must also understand the formal and informal land and housing rights that existed prior to a disaster land tenure and property rights issues should be examined as early as possible because without clear rights to a given piece of land, program based on rebuilding infrastructure will be subject to conflict, delay and increased costs (USAID, 2014). The key to effective response, reconstruction efforts, and building long-term resilience for disaster-affected communities is to recognize the continuum of land tenure arrangements that exist in practice prior to a disaster, while strengthening the land rights of the groups most vulnerable to housing insecure tenure arrangements, including women, youth, migrants and the poor (USAID, 2012). Most relief approaches focus on groups with documentation of prior land ownership but ignore the land claims and housing investments of those who may have held land informally or who lack documentation (Brown & Crawford, 2006).

Rebuilding and post-disaster land markets: disasters affect the demand for, and supply and cost of housing and land. Different segments of disaster-affected populations need different recovery assistance programs because shifting market dynamics may limit the ability of some groups to recover and adapt to the external shock of a disaster (World Bank, 2013b; Lyons 2009; Caron

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2009). Even if vulnerable groups land and housing rights are recognized and restored through the issuance of documents and they are able to return to their property, changing market dynamics may erode their ability to stay on environments (GAO, 2013; Lyons, 2009). Often families who cannot afford to rebuild are forced to sell their land and move. As a result of this secondary "displacement', families might find themselves tenure insecure once again. Such groups may not have previous experience in the land market, or understand the process of buying and registering land or the technical language associated with land administration (i.e., survey, deed, plan) (Caron, 2009). Meanwhile, renters also often face much higher rents in the immediate post-disaster housing market and may be forced to move away from their livelihood activities.

Finally, forms of dispossession like private land grabs and encroachment complicate post-disaster reconstruction. There is a high degree of confusion in the immediate wake of a disaster. Government agencies redirect attention to relief and recovery efforts, creating a void in governance. Quite often, powerful real estate interests rush to fill these voids and acquire large tracts of land owned by vulnerable groups. Displaced vulnerable groups may have to contend with the secondary occupation of their properties by other displaced persons, which prevents their "rightful" return. Given the limited reach of formal land administration authorities, civil society advocates for socially marginalized groups play a crucial role in monitoring and protecting against the risk of dispossession faced by the poor and other vulnerable communities (UN-Habitat, 2008). Community-driven enumerations have proved to be effective in strengthening the land claims of the poor and warding off encroachers. Government and donors can also plan for dynamic price fluctuations of construction costs when designing reconstruction projects and financing schemes (World Bank, 2013b).

Mobilizing for Labour and Material

One of the challenges for post-disaster reconstruction is to make sure the required manpower and construction material are in place as and when they are needed. Limited resources for reconstruction work can result in delays and increased costs. Further, extensive competition to obtain limited resources may provide room for corruption and mishandling of resources. During the reconstruction of Banda Aceh, Indonesia following the tsunami, limited timber availability resulted in the affected community living in temporary shelter one year after the disaster (Zuo et al.., 2009). This occurred despite Indonesia being rich with forests.

Timber supply in Banda Aceh was frequently delayed by up to 10 weeks. Such delays badly affected the on-going reconstruction activities. Illegal logging, bribes and illegal payments by truck drivers to corrupt police and state authorities were some of the reasons identified for the lack of sufficient timber. Such illegal payments and limited order amounts increased the cost of timber significantly, resulting in reconstruction costs that were three times higher than the actual construction cost. It was later identified that proper supply chain management when sourcing timber, and good communication links between the suppliers and reconstruction project teams regarding the timelines for timber requirements, could have avoided unnecessary delays (Zuo et al.., 2009). Further, a tight governing structure could have been imposed for the authorities to avoid corruption.

Suppliers have a direct impact on the cost, time and quality of work provided to the buying organization. Thus proper supply chain management is important to ensure that disaster reconstruction work is delivered to the required standards. As Carr and Pearson (1999) argue, the buyers and suppliers need to share sensitive information in order to jointly find solutions to issues related to limited resource availability after a disaster. Therefore, effective two-way communication between the supplier and strengthens reconstruction work.

When procuring the materials and components, multiple suppliers can be used even when supplying the same material or component. The main advantage of this approach is to reduce the risk posed by company failures or poor performance of suppliers. This reduced risk comes at the expense of increased administrative and transactional costs (Dyer, 2000). These costs are frequently compounded by the lack of local and government authorities to manage the larger number of suppliers. This was evident during tsunami reconstruction work in Sri Lanka and Indonesia, and led to delays in reconstruction work. The alternative is to use a single source to supply construction materials and components.

Myburgh et al., (2008) suggest that the selection of a single source to supply materials, which is based on performance rather than bidding for multiple suppliers, could also have the benefit of increased quality. Further, a single point of responsibility for the supply of materials can lead to long-term relationships between the suppliers

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and buyers, which are more likely to be based on trust and cooperation a long-term relationship between a supplier and a buyer can provide benefits due to the trust and relationship developed over time, sharing willingness to share risks, and the reward of continuous work for suppliers. As a consequence, supply chain management that is based on a long-term relationship between suppliers and buyers is becoming popular in modern procurement practices and may yield benefits for post-disaster reconstruction when sourcing labour, material, plant and equipment. In order to maintain the quality and performance of the supplier base, pre-qualifying of suppliers based on certain criteria can also be used (Zuo et al., 2009).

During disaster reconstruction work, community-based sourcing of resources is usually encouraged. Domestic and international donors must therefore be encouraged to look into the availability of material, labour, plant and equipment within the community, prior to looking for external sources. The use of community-based resources may help to strengthen the capacity and commitment of the affected community, increase the sense of ownership for reconstruction for reconstruction activities, and reduce the social tension that sometimes emerges during post-disaster management activities (Schilderman, 2004). For example, when designing earthquake resistant houses in Alta Mayo, Peru, the use of locally sourced material for reconstruction was given a higher priority by the designers. The designers wanted to assist the community by using local material such as timber, earth and aggregate that was common in the community. This created long-term sustainability of the houses rather than relying on foreign technology that could require external aid (Lowe, 1997).

III. RESEARCH METHOD

A quantitative research approach was adopted for this survey. The survey tool used was a structured questionnaire that was designed based on the factors derived from the literature review. To adequately improve the questionnaire, both pretest and pilot study was conducted with 4 consulting experts and 9 professionals in the construction industry,and a small sample of flood victims respectively involved in post – flood disaster housing reconstruction. It indicates that the respondents understand the questionnaire contents they are given, and there is a face validity. The questionnaires were administered by self to the respondents who are the beneficiaries of the post – flood housing reconstruction development for field survey. The respondents were asked to rank their level of participation in resource mobilization and reconstruction process of the housing reconstruction from their own perspective using five point like scale from 1 – 5. Statistical analysis was used to determine the key parameters in resource mobilization and reconstruction process as it affects the respondents. By using SPSS descriptive statistics, a ranking of the parameters as perceived by the respondents was carried out to identify the major factors which significantly affect resource mobilization for reconstruction projects after the flood as relate to community participation.

IV. RESEARCH FINDINGS AND DISCUSSION

The questionnaire was administered and retrieved in one week as in Chacon (2009). The 159 set of questionnaires were administered to the flood victims in the study area. A total number of 130 questionnaires constituting 81% were retrieved from the respondents.

Table 1. Questionnaire Administration

Questionnaire	Respondents	Percent
Administered	159	
Collected	130	81%

Financial mobilization

With regards to resource mobilization strategy used in post – flood disaster housing reconstruction financial mobilization strategy has five strategies with bilateral funding ranked 1st with mean value of 2.94 is termed effective strategy for resource mobilization in the study area. Multilateral agencies and Grant and grants – in – aid are ranked 2nd and 3rd strategy with mean values of 2.88 and 2.86 respectively while lending and banking services and microfinance institutions were ranked 4th and 5th respectively with their corresponding mean values of 2.64 and 2.46.

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Table 2.Financial mobilization

S/N	Mobilization strategies	Mean	Rank
1.	Bilateral funding	2.94	1st
2.	Multilateral agencies	2.88	2nd
3.	Grants and grants-in-aid	2.86	3rd
4.	Lending and Banking servicing	2.64	4th
5.	Microfinance institution	2.46	5th

Table 3 shows land mobilization strategy with four mobilization strategies with housing need assessment ranked 1st with mean value of 2.51. The table also showed that assessment of land availability and land allocation planning with hitting ranked 2nd, 3rd, and 4th with mean values of 2.28, 2.15 and 2.03 respectively.

Table 3. Land provision for reconstruction

S/N	Mobilization strategies	Mean	Rank
1.	Housing need assessment	2.51	1st
2.	Assessment of land availability	2.28	2nd
3.	Land allocation planning	2.15	3rd
4.	Titting	2.03	4th

Table 4 reveals the extent of labour mobilization. Labour mobilization has three strategies with mean value of 2.41, recruitment and importation of experts and engagement of construction industry actors ranked 2nd and 3rd with mean values of 2.26 and 2.22 respectively.

Table 4. Labour mobilization

S/N	Mobilization strategies	Mean	Rank
1.	Recruitment of land manpower	2.41	1st
2.	Recruitment and importation of experts	2.26	2nd
3.	Engagement of construction industry actors	2.22	3rd

Table 5 revealed material mobilization strategy. Material mobilization has four strategies with stratification of materials procurement ranked 1st with mean value of 2.94. Establish material procurement qualification criteria, logistic and supplies and utilization of e-procurement system ranked 2nd, 3rd and 4th.

Table 5. Material mobilization

S/N	Mobilization strategies	Mean	Rank
1.	Stratification of material procurement	2.94	1st
2.	Establish material procurement qualification criteria	2.88	2nd
3.	Logistics and supplies	2.64	3rd
4.	Utilization of e-procurement system	2.46	4th

V. CONCLUSION

There was a misplaced of priority in the housing reconstruction and resource mobilization strategies adopted in the study area. The result revealed the misappropriation of priorities through non – involvement of beneficiaries which on the long run tends to truncate the success of the project. Post-flood disaster housing reconstruction project can be seen a colossal failure if users requirements were not taken into consideration as required by world Bank guidelines for housing reconstruction. Hence, this study suggests the post – disaster reconstruction and recovery processes that comply with the above mentioned guidelines whose aims is making the community the central focus of the planning, organizing, procuring, scheduling, monitoring and allocation of resources mobilization. It should be noted that reconstruction is beyond physical housing provision for the affected communitybut should be seen as opportunity to incorporate risk reduction measuresand increase the resilience of the

community to future hazard and climate change effects.

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