
The Concept And Evolution Of Machizukuri From Social Movement To “Soft-Infrastructure” Of City Level

Civil society engagements are important in city planning as their role seen to comprehend and fill the gap of society needs. As the purpose of urban or city planning is for society sustainability, the idea of participatory approach could answer the challenge of what should be provided and how. The community-based activities are deeply rooted with the social engagements of culture and tradition enabling them to deliberately express their needs and preferences in the society level. Their activities reflect their capability in understanding their issues and with their experience, some ideas are addressed and proved to bring the solutions. Therefore, this experience is also reflected and applied in disaster management in which being victims of disaster raise their awareness on the participation in land reconstruction. The desertion of community involvement in this case seems to increase the vulnerability.

The concept of community-led planning is rooted in Japanese society since post World War II. After the war, the approach of the country to escalate their dignity was massively turning a devastated country into a full-of-hope country by rapid and intensive development. Industries in urban area had turned most of city to be more polluted where they also lived in. The impacts to the society resulted in the society engagements and movements to speak up their problems with respects to environmental and health issues. Thus, the community organization was raised or called “Machizukuri”. Following by the situation, machizukuri has evolved as the most influential actor particularly in city planning, they have purpose to prevent unwanted changes and promote desired changes. Later on the power of civil society in terms of machizukuri played significant role in disaster management.

In this paper, the concept and evolution of machizukuri from social movement to “soft-infrastructure” of city level in delivering and maintaining the community needs in post-disaster stage are discussed. Firstly, introduction or background of the establishment of machizukuri as community movement to protest due to massive industrial activities impacts. In the section two, a study case of The Great Hanshin-Awaji Earthquake in Kobe in 1995 are chosen to review the role and process of machizukuri in disaster management in the context of urban renewal and land readjustment. Next, challenges of machizukuri in the process of city planning are delivered which derive the lesson learned of community-based activities in participatory planning particularly in disaster relief and reduction. The lesson within the succeed of machizukuri in identifying their problem and needs, leads to the deliberation of the collective actions which highly become experiences to the other communities in other regions in the following disaster after Kobe earthquake. This application is presented to see what changes and what the

Need help with the assignment?

Our professionals are ready to assist with any writing!

[GET HELP](#)

remaining limitations within machizukuri activities and process dealing with their innovation in disaster risk reduction. In the end, the possible improvements or opportunities are proposed to establish the sustainable mechanism for civil society engagement in disaster management.

In order to identify the role and lesson learned of community-based activities for building sustainable mechanism in disaster risk management, the Japanese concept on the machizukuri is vividly explored. The characteristic of civil society in Japanese culture emphasizes the strong emotional bonding in the community or neighborhood level which results in strong social networks. The form of community activities mainly the actions from different actors who have shared interests by voluntarily express their idea through any means or resources with an array of time, skill, and not less with their capital resources. Many of them have diverse professions from ordinary civil society to businessman and expertise. Although a gap may be realized, the rooted connection and emotion amid them may reduce and even diminish the barrier in which their shared purposes are seen the most important to achieve.

Machizukuri is not a new concept which in 1970s, it was highly promoted as a new approach as key player dealing with industrial era problems in Kobe. The upcoming of residents' groups in delivering their collective actions eventually needs a legitimate organization who organizes their aspirations. In 1978, the establishment of machizukuri council in Mano district was seen to be a means to an end as to prevent population shrinkage by attracting young families to live. Altogether with municipal administrations, they developed the ideas and practices in more subtle ways to in existing developed-region. It follows with the development of the area into integrated settlement with other public facilities that promote the livelihood of the community.

In the following time, the grass-root innovation from civil society has been used to shape the community livelihood in which in disaster risk management, it helps to relieve the condition. The process of civil society in post-disaster land reconstruction arose when devastated earthquake hit Kobe in 1995.

Disaster Profile

On January 17, 1995, a devastating earthquake with a seismic magnitude of 7.3 struck Kobe City, Hyogo Prefecture, Japan. The Great Hanshin-Awaji Earthquake, occurred in Kobe City built on a narrow 2 to 3 Km of wide coastal plain, surrounded by Rokko Mountains and the Osaka Bay. Consequently, it took 6000 casualties and over 30,000 injuries. It also demolished over 200,000 buildings and damaged around 180,000 buildings, following with fire. As a result, about 300,000 people were homeless and estimated about \$200 billion of the economic loss.

The characteristic of disaster enhanced the intensity of the impacts. The peak of earthquake vertical movement exceeded horizontal acceleration resulted in the expel of the liquefied layer

Need help with the assignment?

Our professionals are ready to assist with any writing!

GET HELP

on the Port Island, one of the reclamation islands in the fringe of Osaka Bay. Noda Hokubu and Matsumoto districts in West Kobe's Nagata Ward were seen the most affected places due to fires. This was caused by the poor quality of houses exemplified by many old timber wood houses with narrow street that triggered and increased the extent of fires right after the earthquake. It consequently hindered the fire-fighters to access the affected areas where many modern buildings with concrete columns also collapsed into the narrow streets.

The earthquake also damaged several pivotal infrastructure networks. According to report of The Great Hanshin-Awaji Earthquake Statistics and Restoration Progress in 2012, the traffic networks were also disrupted that the Hanshin Expressway Route 3 (Kobe Route) and Route 5 (Wangan Route) collapsed onto the road below. Railway or bullet train were damage as well. Healey (2009) argued that it resulted from the neglect of inner city development whereas major development was focused in the reclamation land in the coastline area. However, the reclamation lands were also affected by the combination of vertical and horizontal earthquake movement. Liquefaction occurred in the layer of reclamations of 2-4 sections of the eastern areas on Port Island.

Overall, the high intensity of Kobe earthquake contributed to the extent of the damage which raised the awareness of the civil society to do collective actions. Here, the engagements of communities became a turning point of the old-machizukuri concept which had concerned on the environmental issues in post-WWII into disaster reduction in accordance with city planning participation.

Actor involved and Civil Society Engagement

In the context of disaster management, urban renewal or saikaihatsu and urban readjustment or kukakuseiri in post-major earthquake of Kobe Prefecture in 1995 was initially dominated by top-down approach which focus on overall physical structure and layout. However, later in the process of execution, there were some gaps found resulting in community movements as bottom-up approach to balance the city planning. Therefore, in this case, there were three key actors who played pivotal role both saikaihatsu and kukakuseiri, namely city administrations, civil societies, and consultants or specialists. It is important to note that the portion of civil society engagement contributed to the outcome of city planning in disaster risk management.

The rapid and large-scale of land reconstruction in Kobe after the disaster exhibits the role of city administration in using decentralization as means to endorse "build back better" in disaster management for their territory. One of quick measures local government took was establishing umbrellas to do land reconstruction. Within short period after the earthquake, they published some policies in saikaihatsu and kukakuseiri for promotion areas to gain a recognition of decentralization as their long-term planning Hein (2002). In addition, the local government

Need help with the assignment?

Our professionals are ready to assist with any writing!

GET HELP

published building restrictions policy for six areas on February 1 and followed by law for Special Measures for the Reconstruction of Destroyed Areas on February 26. However, the concept of decentralization in disaster risk management cannot be overlooked the importance role of other actors such as civil society and the experts as they balance between need-gap of what should build and how to build to achieve the sustainable post-disaster neighborhood. As a result, the reconstruction promotion area in south of Kobe was opposed by citizens as the location was far from their originate neighborhood and also they had been not informed about the plan.

The role of civil society in post-disaster city planning exemplified by rooted-Japanese strong emotional relation has comprehend the design or plan that many groups from diverse social status involved. The involvement of society in machizukuri, significantly rose at 100 groups particularly after Kobe earthquake that destroyed their cities and neighborhoods. Most of the groups consisted of local land and property owners and residents with small businesses and concentrated on urban redevelopment or readjustment areas. These machizukuri organizations were authorized under the Kobe City Machizukuri Ordinance that was established by the city government in 1982, long time before the disaster occurred. Kobayashi (2007) encapsulated that the residents could play an important role as they were accustomed to the city planning process, yet supporters network existed.

Process and Innovation

The concept of Machizukuri becomes a great example of the participation of civil society in urban planning particularly post-disaster urban redevelopment planning. Their role encompassed their shared-values and lifestyles arrayed in constructive manners through regular meetings and consultation among community members and the local urban planners or specialist groups. The process of Machizukuri in post-disaster urban planning reached an echo and advocacy in the meantime of Great Hiashin Earthquake in Kobe, yet challenged.

The process of machizukuri gaining the recognition and authorization in post-disaster land reconstruction was not only begun with fine-grained movements but also pressure. The initial absence of local machizukuri in land redevelopment in The Rokko-michi Station South Area, one of the worst affected areas, led social movement as a lawsuit to City Planning Office. Relocated local residents at that time were shocked by the original plan from the administration seen to detriment their social culture life. As a result, a revised plan of the initial redevelopment plan of high rise apartment buildings with large park was enacted with the specific terms. As prerequisite, it required the establishment of Machizukuri Council to accommodate community aspirations which later the council became an embryo of legitimized participatory planning approach.

This became a foundation on magnifying and bridging between local machizukuri and City

Need help with the assignment?

Our professionals are ready to assist with any writing!

GET HELP

officials in reconstruction plan. It aimed to improve liveability by working with local administration in a more fluid manner within the technocratic of top-down bureaucracy yet temporary deadlocked. In The Rokko-michi Station South Area, the proposal of reserving small parks from local residents was barely passed because reduced the floorspace/site ratio for high rise buildings and hindered the central subsidy by 75 per cent. However, the machizukuri council showed their essential role of supporting networks for community development through effective communication and organization activities. Another case of Mano district, local residents, shopkeepers, and local businesses were also involved in revised of District Plan.

The presence of supporting networks was also seen as one of contributing factors for local Machizukuri process to deliver their innovations or ideas through intense assistance. Partnerships with other groups and towns led to the creation of social activities. The planners, architects, academic researchers, and other specialists played the role as a bridge between machizukuri to work on agreement with local government with better understanding and as a catalyst to produce good material of reconstruction plan. The specialists assisted from the creation of basic plan to the implementation of project in land redevelopment, readjustment and revitalization. It allowed their proposal to re-build residential in cooperative rebuilding with improved urban design and environment, to provide more cooperative housing for low-income residents, and to keep small parks around neighborhood for socially interaction.

Therefore, some improvements had been made in urban design to maintain the characteristic of the residents and to achieve the future desired-neighborhood as disaster relief. In Noda Hokubu district, the community was willing to reconcile with the City Planning by giving small part of their land to be 50 cm of setbacks and 5 m of street widening which still can be a public-private intermediate space for residents to socialize. Some urban features were installed in public spaces which functioned as safety elements as well such scattered small parks around neighborhood, a small meandering stream along the main road to increase liveability and eco-neighborhood in Matsumoto district, and integrated community center in Rokko Park.

However, the process of machizukuri in delivering their ideas as innovation in post-earthquake reconstruction plan were seemingly contribute to different pace although the final plan eventually justified their proposal. The contribution of machizukuri in Mano district was gradual and slow in order to increase environmentally and healthy neighborhood as attraction to the new comers tackling with population declining problem in the area. In comparison, the process in The Rokko-michi Station South Area has been more radical as the evacuated residents wanted to come back in their community with the closed-appearance environment before the earthquake destroys their neighborhood. It reflected that urban regime in terms of Machizukuri role in post-disaster reconstruction plan may deliver different approach depends on the characteristics of the residents, neighborhood, and the leadership style itself. In the end, the long-term planning aftermath the disaster was driven by the government in terms of

Need help with the assignment?

Our professionals are ready to assist with any writing!

GET HELP

infrastructure and modernization.

Machizukuri group does not have enough legitimacy and power to urge the local governments to process the planning development. To explain, from the perspective of the construction state, the key reason for the civil society groups to gain power at the beginning of their authority should be difficult, due to the purpose of gaining the residents' supports. Thus, from the other perspective, the other political and economic actors need to obtain particular incentives to maintain their priorities during the urban management.

However, as the social organization, the Machizukuri group contains the advantages to acquire resources and to sustain the mobilization based on their specific professionalization. But on the contrary, it also means that the social disorganization would be likely to be generated, due to the lack of community organizations, which might prevent the individuals from conducting collective actions. Even the sudden collapse of movement of government can provide a sense of community with social ties and networks, as a result, the Machizukuri group cannot maintain sufficient efforts to process the development of the sustainable mechanisms for civil society driven innovation.

For example, after the Kobe earthquake, the city administration's planning of "toshikekaku" has been responded to the disaster very quickly, as the major decisions and actions of the post-disaster reconnection had been made quickly within weeks. At the same time, the local residents in Machizukuri would promote their mobilization in a very slow pace that might take months (Bosman, 2007). Therefore, in order to establish the institutional arrangement to particularly co-operate with the local governmental institutions, the urban renewal activity would be relatively challenging for the Machizukuri group due to this institutional constraint.

Aging issue

Moreover, the declining population of Kobe is one of the most challenging problems for the region to face currently, which may also become one of the key challenges for the development of sustainable mechanisms for civil society driven innovation in Japan. To explain, the concept of Machizukuri is a concept of focusing on the neighbourhood building in Japan, which requires the support and participation of the local residents.

However, due to the decrease of the local population, young families would be hard to be attracted in the Machizukuri group. Therefore, the process and innovation would be hard to be smoothly processed, because of the older generations' lack of technological senses and acceptances. For example, the urban redevelopment and urban readjustments in Kobe have to fit the local residents' needs, including the Machizukuri group. As the portion of the older generations is growing in Japan, the new technologies and the innovation implemented in the

Need help with the assignment?

Our professionals are ready to assist with any writing!

GET HELP

urban planning would be hard for the local residents to get used to, which may bring more obstacles for the target residents ensure a sustainable and enjoyable life. Therefore, considering the aging issue, the urban renewal activity would be challenging as well for the Machizukuri group in the civil society.

Financial constraints

The lack of budget

Firstly, considering the limited government and public sector investment, the credibility of Machizukuri would be reduced. To explain, besides the traditional town planning such as the road and traffic development, Machizukuri also contains the elements of livable and sustainable achievements. To achieve this goal, the normal financial budgets cannot meet the expectation of the Machizukuri urban planning, because the sustainable urban planning would cost more than the normal infrastructure development, because of the use of renewal and recyclable resources and materials.

Therefore, considering the additional expenses in urban renewal, the local governments would have limited financial resources to support this urban development activity, thus leading to the urban innovation hard to be processed.

The declining of local economy, and the shrinkage of local shopping arcade (named “shoutenngai” in Japanese, usually be local community centre)

Furthermore, the local economy’s declining can be another challenge of the urban renewal activity. In details, the shrinkage of “shoutenngai” in Kobe becomes critical, due to the major amount of populations rushing into Tokyo and Osaka. Due to the reducing of the local commercial activities, the local economy is declined, which may result the local businesses fewer revenues in the region. Therefore, the reduced economy will result fewer financial resources for the local governments to establish the Machizukuri group to ensure the urban renewal.

In addition, due to the limited financial resources possessed by each household, the grass root will be hard to be effectively established and operated. Thus, this issue might lead to the consequence of lacking the local culture. As the Machizukuri group is highly relied on the small urban region’s sustainable culture by its residents, the less successful management of the grass root would reduce the effectiveness of the urban renewal. Therefore, considering the limited governmental findings and the potentials of lacking regional cultures, the Machizukuri group will face huge challenges during the urban renewal development

Need help with the assignment?

Our professionals are ready to assist with any writing!

[GET HELP](#)

The losing motivation of Machizukuri from the local residents

Lastly, Machizukuri is not just about urban planning in the construction. Instead, it is also highly linked to the soft aspects of urban development, which are more than physical infrastructure development. In other words, to successfully achieve the development of Machizukuri, the local residents' continuous motivations and interests in the urban renewal should be achieved as well, which requires their passions of volunteering activities and money funding donations.

Based on this issue, the upgrading of the particular area should involve the local residents' emotions and appreciations during the process, which support the Machizukuri group's characteristics shaping activity. Therefore, it is concluded that not only the physical financial constraint, but also the soft financial constraint is existed, during the process of urban renewal innovation.

Communication and coordination

This section will discuss the communication and coordination challenges by looking at community experience, integrated approach, community network, and urban design.

Experience is regarded as an important aspect of disaster risk reduction. Previous experience in Mano community, Kobe dealing with pollution issues, makes them more recognized in the machizukuri council. Meanwhile, the community with less experienced is not recognized as having a good perception of city planning. Therefore, flexibility and trustworthy are essential in machizukuri practice.

Furthermore, initiatives from the local neighborhood or community do not always lead to more integrated approaches within the local administration or government because some of them might be ignored. The balance of respect and responsibility between community and government should be maintained. If not the community may seek another way to improve the livability of their local environments through courts or informal mechanism. Therefore, it is vital to maintain good communication and coordination in a community.

As for the availability of community network also plays an essential role in communicating and coordination. Through the activity of machizukuri most residents knew where should ask for advice or immediate help in the time of disaster compared to another area which not incorporated the machizukuri activity. In addition, the lesson from Mano community also strengthens the importance of active civil society. It is proven that employing democratic, bottom-up, and collective knowledge-based approaches could increase the social cohesion, response and network through good communication. If the community network is not well established, it may hinder the disaster mitigation. Hence, it is vital to promote the integration of machizukuri

Need help with the assignment?

Our professionals are ready to assist with any writing!

[GET HELP](#)

like approach in the neighborhood to reduce the disaster risk.

The community where they have wide street and divided neighborhood may result in limited communication in the time of disaster. Related to these issues, Mamula-seadon, Kobayashi, & Maki (2015) mention some machizukuri cases that to recreates the lifestyle where neighbors use to meet each other easily citizen proposes scattered small parks around neighborhood rather than single large parks. This case strengthens the potentials of an interconnected society where a neighbor could meet each other quickly in the parks and improve the social cohesion which is very important in the time of disaster.

Discussion on establishing sustainable mechanisms for civil society engagement and innovation

What has changed since the Kobe earthquake?

In the case of The Great East Japan Earthquake, top-down approach was still dominated but here, the role of local government was sought to understand and strongly embrace the community involvement in disaster relief. Therefore, local government has signed an agreement with universities as facilitator to the community. The application of Machizukuri aftermath the Kobe Earthquake became model of the importance of civil society in post-disaster relief which made the academic noticed on the urgency of machizukuri establishment. Here, the process of Machizukuri quite different from Kobe case. It differs from the initiation and the role of community in certain stage of disaster.

The establishment of Machizukuri after Tohoku earthquake highlights the condition of the minimal machizukuri existed before the earthquake that urged to form more community-led activities specifically in recovery machizukuri scopes. Koizumi and Tsuji (2018) explained that the initiation of community active groups establishment was formed by local municipalities, pointing out the essence of Machizukuri Collaboration Center for funds, group activities, capacity building by seminars, and loan for meeting rooms. In another town, the academic actors, University of Tokyo and Iwate Prefecture University, proposed also proposed the establishment of machizukuri. The process shows that the concept of machizukuri was highly valued particularly in disaster risk management which community is the central of the both impact receiver and recovery beneficiary.

It is also worth pointing out that the role of machizukuri may contribute in different level or stage of disaster risk management. The Great East Japan Earthquake generated the profound participation of community and was seen valuable in disaster relief in terms of providing temporary housing facility. In Otsuchi Town, it concentrated on housing plan, the layout of individual housing units, the location of housings, and the integration with other facilities for sustainable community (Koizumi and Tsuji 2018). It includes some features that eased the gap.

Need help with the assignment?

Our professionals are ready to assist with any writing!

GET HELP

A wooden deck was used to create an valley which community used to have a social interaction. This alley connected to the support center which gave community care services and integrated with the shops and offices in Heita Park. The general activities of this community-based organization were continued and seen as “recovery machizukuri” since Tohoku disaster.

Machizukuri activities were not stopped even more active in post-reconstruction period. Since 2012, the community-support funds have been increasing from the national government and providing the assistance in 2013 for New Tohoku Leading Model Project. Some supporting networks of community activities were applied with regards to machizukuri funds and new collaboration mechanism for industrial development by endorsing community business, and health and wealth services. Later on, the meeting exceled to have conferences held in October 2013 and February 2014, delivering the report with proposals on industry and tourism, medical care and welfare, local community, and disaster prevention, and education and child rearing. They concerned on the creation of community care by physical environments, situation, and shared ideas which both tangible and intangible matters were emphasized.

Remaining limitations

Related to the communication issues another findings 6 month after 2011 tsunami in Iwate is that the formed neighborhood associations or community are not always running smoothly (. The research still found communication is still the essential issue related to communication and sharing their interests and problems with each other. Therefore, this is considered as the vital aspect to deal with in the future development of building disaster risk reduction practices.

Possible improvements/opportunities and future engagement.

Evans (2002) emphasize the approach to machizukuri, where he mentions two cases in Kobe, Japan: bottom-up and mixed approach (Top-down and bottom-up approach). The bottom-up case in Mano is the best example of machizukuri utilizing where the plan is from people not from the government. Meanwhile, the other in the Rokko-Michi station, machizukuri is mandated by the government. In the last case, the role of the community is reduced, it only asks for a suggestion from the community. Not asking what community wants for the future development. Therefore, machizukuri should be regarded as the bottom-up approach, initiated by the community, not the contrary.

The following author mentions that facilitator approach from government to the community where it encourages the community development is good, yet it is not the best approach. The approach should incorporate collaborative rule because participation between local government and citizens is essential. Collective action to prepare for unexpected situations would be more effective if local government and civil society, especially in the form of bracing networks,

Need help with the assignment?

Our professionals are ready to assist with any writing!

GET HELP

collaboratively developed their strategies and monitored progress towards their goals.

Another approach for community disaster risk reduction could be utilized by using games. A game called crossroad is a card group learning games using a disaster scenario to promote the active participation of community members. This game has a considerable potential to improve the disaster prevention exercise because it uses to stimulate their capabilities with multiple stakeholders assistance using interactive role-playing methods. As a result, these games could contribute to develop people's capacity for finding a viable solution by themselves in the time of disaster.

gradesfixer.com

Need help with the assignment?

Our professionals are ready to assist with any writing!

GET HELP