

Community Capacity Building to Strengthen Socio-Economic Development with Spatial Asset Mapping

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SUMMARY

The concept of community capacity is regarded as the ability of people and communities to do works associated with the determinant factors and indicators of the circumstances of socio-economic and environmental contexts. Building capacity of communities to effectively address our problematic issues and planning of community development is often required to analyze current status of community of socio-economic capacity development with GIS. We consider socio-economic development of community as a planned effort to build assets that increase the capacity of communities. Spatial asset mapping is the process of identifying and making inventories of tangible and intangible assets in space. This mapping requires developing a capacity inventory that collects individual, organizational and community capacities in view of human, socio-cultural, natural, financial, digital and physical capacity. Although several asset mapping projects and dynamic issues of community capacity building discuss the reality of asset's role and function, it may be still hard to illustrate different consensus of the relationship or interaction between community capacity and spatial asset mapping in GIS-based contexts. This study examines the concept and theory of community capacity. It also proposes a framework of asset-based capacity building for community and suggests how spatial asset mapping enable surveyors and economists to strengthen community socio-economic capacity development.

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1. INTRODUCTION

There are growing international interests in capacity building that is fashionable topic to increase and strengthen community capacity. Capacity building is used to describe a wide range of activities that strengthen a thing, person, agency and even community so that it can fulfill their missions and undertakings. Although many literatures have addressed this term and applied it to several domains, their models and frameworks might remain to be elusive without clear scrutiny of capacity. The nuance of capacity would be perceived as not only qualitative asset such as performance, skills, power, but also quantitative asset in terms of size, volume, price, etc. Thus, an interpretation of the concept of capacity building varies depending upon their living environments and concerns.

A conceptual model of capacity and hierarchy of capacity building is designed to delineate community capacity. Being different from existing model and framework, an asset-based mapping approach to capacity, capacity building and community capacity is a core concern of individuals, groups, agencies and communities that seek for increase of their resources, capitals, and relevant economic wealths. A spatial asset mapping approach to capacity building helps them to find their skills, resources and geographic advantages that provide motivation and opportunity of socio-economic capacity development in sustainable community.

Asset mapping for creation of community capacity building requires clear understanding of asset's role and functions to be modeled. A hexagonal form of asset is used to explain the mechanism between asset and capacity building that follows a normal process of asset input and its benefit focusing on interactions of cost, capitalization and capacity. Thus, an asset-based capacity building is described as a tool for measures of asset values and asset capacities. This extension to community capacity might need spatial asset mapping to analyze strength and opportunities of community capacity. An asset-based community capacity building framework is proposed to measure the ability or performance of geographic features and human beings.

Community spatial asset mapping is a process and strategy to find unused or undeveloped assets to boost their community development. In this research, an asset-based community capacity building framework is proposed to encompass the concept of capacity and capacity building in conjunction with value mapping and capacity mapping towards sustainable community socio-economic development.

2. DYNAMIC APPROACHES TO CAPACITY BUILDING

There are many definitions of capacity building interpreted by researchers, practitioners and decision-makers that are associated with serious demands for strengthening health promotion (Poole, 1997; Baker and Teaser-Polk, 1998; Smith et al., 2003). Several other needs for researches on capacity building coming from socio-economic development (Kinsley, 1996; Narayan and Cassidy, 2001; Armstrong et al., 2002) and geo-information management (Groot and van der Molen, 2000; Enemark and Ahene, 2003) make a fashionable issue and topic leading to different nuances of capacity building based on their project purposes and research themes. Although some of them focus on three level of capacity building (individual, organization and community) with a wide variety of indicators to measure community capacity, their framework and list of the types of indicators are still exploratory and descriptive. This might be due to the fact that there are not fully enough designs for holistic view of capacity building on account of versatile environments of capacity. In addition, they do not fully explain the characteristics of capacity how it can extend to capacity building or link to community capacity building.

Capacity often regarding as a kind of performance, ability, capability and potentiality is a qualitative buzzword when particularly assessing the characteristics of an object or a person. This word is also used to measure a quantitative object with which evaluations of size and volume, value and price, and monetary power are associated. Social approaches to capacity could be regarded as judgment, will, ambition, justice, equity, etc. Thus, capacity building is multidimensional concept to create enabling conditions for individuals, institutions and communities that realize their potentials, values and prides to get skills, learnings, and knowledge. In addition, there are surely legal, institutional and cultural factors that could not be expressed as a capacity, but considered to be distinctive features or customs associated with dignity and fame. Figure 1 shows the concept of capacity and the hierarchy of capacity building. In many literatures, they have an emphasis on defining capacity building, but little dealing with the source of capacity.

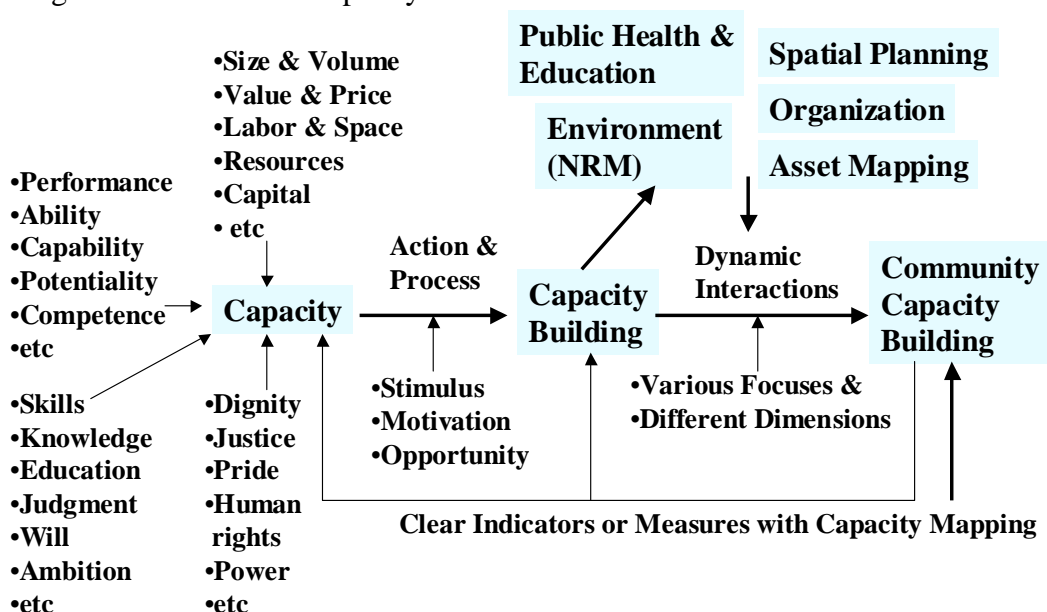


Fig. 1. A concept of capacity and hierarchy of capacity building

Like interpretation of capacity, the definitions of capacity building and its related concept such as capacity development (UNDP, 1998) have multi-dimensional processes and activities that improve the ability of person or entity to carry out stated objectives (Brown et al., 2001). This term is used to describe a wide range of activities that strengthen an organization so that it can fulfill their missions and undertakings. It also could be defined as an approach to the sustainable development of education, ecology, finance, communication, construction and equity linking to a major theme of resources, capital or assets. Capacity building helps individual, group, agency and community to find their skills, resources and geographic merits providing them with motivation and opportunity of socio-economic program.

2.1 From Capacity Building to Community Capacity

When applying capacity building to community, it would regard community capacity building as a similar shape of community participation, community competence, community empowerment, community development and social capital. Measuring community capacity (Aspen Institute, 1996;) requires complex and comprehensive investigations of communal characteristics of indicators and an analytical capacity assessment method because a broad concept of capacity building emanates from various focuses and issues of public health (Kwan et al., 2003), community planning (Goodman et al., 1998), asset mapping (Krezman and McKnight, 1996), natural resource management (UNESCO, 2002), and social action and change (Chaskin, 2001). Despite many discussions of the concept of capacity building in the literatures, there might be little dispute of the characteristics of capacity and few practices and works of how it is characterized for capacity building. In this respect, there is a similar difficulty of capacity building as to how it can depict various domains of community capacity and what community capacity looks like. Although Chaskin (2001) suggests a definitional framework with case studies and Kwan et al (2003) indicates the problems and issues of community capacity, they explain a narrow field of public health and general description of many indicators for community capacity. Thus, there might be additional requirements to clarify the reality of community capacity's circumstance when mapping the community and measuring its capacity. There is increasing need for a generic model and framework of capacity building to encompass a specific domain based on community capacity mapping.

3. AN ASSET-BASED MODEL FOR CAPACITY BUILDING

Being different from existing models of capacity building, our model hinges on an asset-based capacity building. An asset is often used for capital or resources that measures a feature and a person's ability at the socio-economic and physical level. The concept of capacity is considered as various form of asset or capital that can be used to achieve some needs. Assets are broad objects to represent the stock of wealth in a individual, family (groups), agency and community that gives rise to economic flows of capital in terms of inputs, service, productions, outputs and benefits. The concept of assets is conventionally a vital factor to mostly measure degrees of capability or vulnerability in poor urban and rural communities.

Krezman and McKnight (1993) defined assets as the gift, skills and capacities of individuals, associations and institutions within a community. Asset building emphasizes the development of activities based on the capacities, skills and assets of people and their neighborhoods.

Historical evidence indicates that community development takes place only when local community people are committed to investing themselves and their resources to acquire a type of products and monetary benefits increasing their internal and external capacities. Fig.2 illustrates the development of asset capacity stemming from benefits of internal and external asset value. When acquiring assets with a certain service expected, most people intend to increase their asset values as a form of capitalization and make planning for their benefits. From the physical perspectives of asset, asset capacity is concerned with asset numbers, space or volume, and value that is pertinent to ownership rights, comport, performance, speed, maintenance, etc.

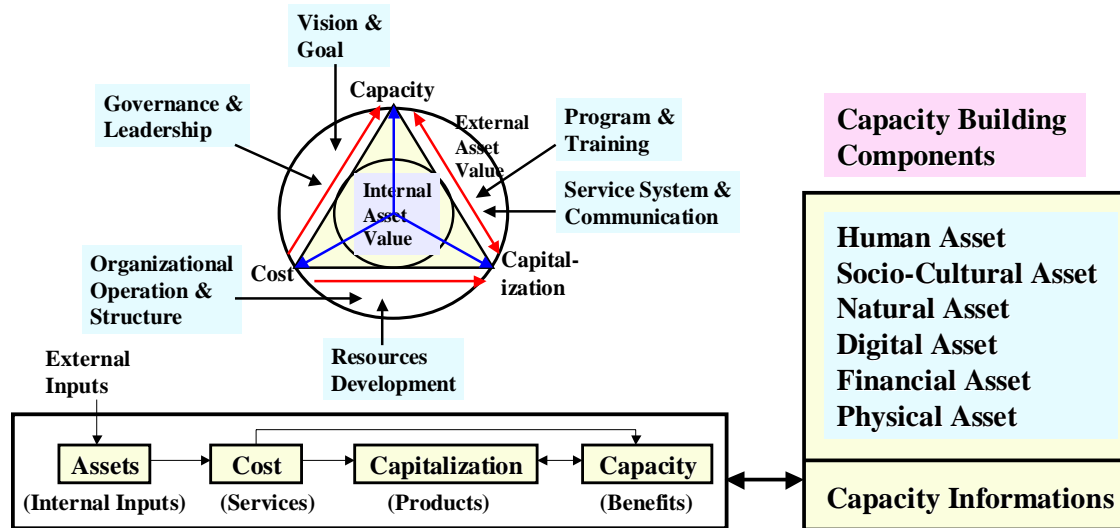


Fig.2 An asset-based capacity building

In the process of asset service delivery, the levels of service requirement will determine capitalization and benefits of asset capacity. An asset-based capacity building, first of all, starts from an examination of cost-benefit analysis of their inputs or investments, and recognition of internal growth of individual, organizational and communal performance and capability. The development of capacity building concentrates on the internal agenda of asset building and problem-solving capacities of people, organizational associations and institutions, and community. The internal focus stresses the primacy of local asset evaluation, investment, capitalization, benefits and future of their capacity. Meanwhile, asset capacity is impacted by one of major external factors in terms of service system & communication, organizational operation & structure, program & training, and governance & leadership, etc. Usage of and access to assets often determine capacity building of individuals, organization and community to maintain their basic needs for consumptions, educations and health, etc.

4. COMMUNITY CAPACITY BUILDING WITH SPATIAL ASSET MAPPING

4.1 An Asset-Based Community Capacity Building

Although many researchers and organizations have defined and conceptualized community capacity framework, the levels of their works remain to be a starting point of capacity

building initiatives and their application and testing is still not yet described. For instances, the Aspen Institute (1966) tells that community capacity is the combined influence of a community's commitment, resources and skills that can be deployed to build on community strengths, problems and opportunities. Chaskin (2001) and Norton et al, (2002) examine that community capacity is the interaction of human capital, organization resources and social capital that can be identified and mobilized to improve the well-being of community. Goodman et al (1998) builds a consensus view on the components of community capacity.

Kwan et al (2003) indicate main challenges of measuring community capacity that there are very general definition and vague consensus, different layers of difficulties in finding valid and reliable capacity measures, and a broader concept that is not relevant to sum of measures at the individual level. With regard to asset-based community capacity building, Krezman and Mcknight's conception based on community assets (1996) expounds individual, association and organization capacities and their capacity inventories with a short description of capacity map. Most of them focus common interests in renewal of community capacity and its development. However, our research approach to community capacity is based on asset mapping to survey, evaluate and map the capacity of relevant assets. This requires an analytical process of capacity assessment with data collection and its analysis that seems to be a part of GIS undertakings.

4.2 A Framework for Community Capacity Building with Spatial Asset Mapping

Although many literatures have defined the concept of community capacity building and their conceptual frameworks with indicators, there might be little efforts to clearly explicate the essences of community capacity using mapping of communal or regional capacity. Even if they introduce capacity map (Krezman and Mcknight, 1996), there might be few clear models to visualize the reality of asset's values and its capacity as to what assets look like, and how assets could boost capacity building. Therefore, it may require some conceptions of asset mapping in conjunction with asset building.

Asset mapping is the process of identifying and cataloging the inventories of tangible and intangible assets of individuals, of groups, of agencies, of neighborhoods and of communities. Asset mapping is intended to assist capacity-focused development of communities that can be described as spatial representation of the data. Asset map is used to present existing capacity inventories illustrating spatial location and distribution of asset values as to what assets can still be mobilized for their quality of life and socio-economic development. Thus, spatial asset mapping is used for portraying asset map with an illustration of capacity mapping that finds unused and unrecognized resources to assist asset building and community capacity building.

Driving from the concept of capacity (Fig.1) and asset-based capacity building (Fig.2), it can lead to a conceptual framework of community capacity building that plays a major key role in steering people and community to understand asset capacity and its importance. Fig.3 illustrates an asset-based approach to community capacity building that has three layers consisting of asset-based capacity, capacity building and community spatial asset mapping. The first layer shows a hexagonal shape of asset consisting of human, socio-cultural, digital,

financial, natural and physical asset that are used for formulating dimension of capacity building.

Most people and even economists would focus on productive and tangible asset capacity and how they generate returns. However, there are increasing awareness of human and socio-cultural asset that is more effective to improve individual and institutional capacities leading to the growth of asset building. This hexagonal form of asset provides a creative theory of asset with the basic principle of asset's choice (cost, capitalization and capacity) in association with asset's relationships, behaviors and interactions. More explications are beyond the scope of this study. The second layer illustrates the level and process of capacity building consisting of micro, meso and macro approach. At the micro level, capacity building for individuals and families are major target groups concerned with program for education, skill, job training and social cares. This level is closely related with household capacity that might be very significant to determine quality of asset capacity and quantity of asset building. Particularly, individual performance and capacity are major objectives of human resource development and management that has been studied in many businesses domains. Many people often focus on the importance of human asset that might not link to other assets.

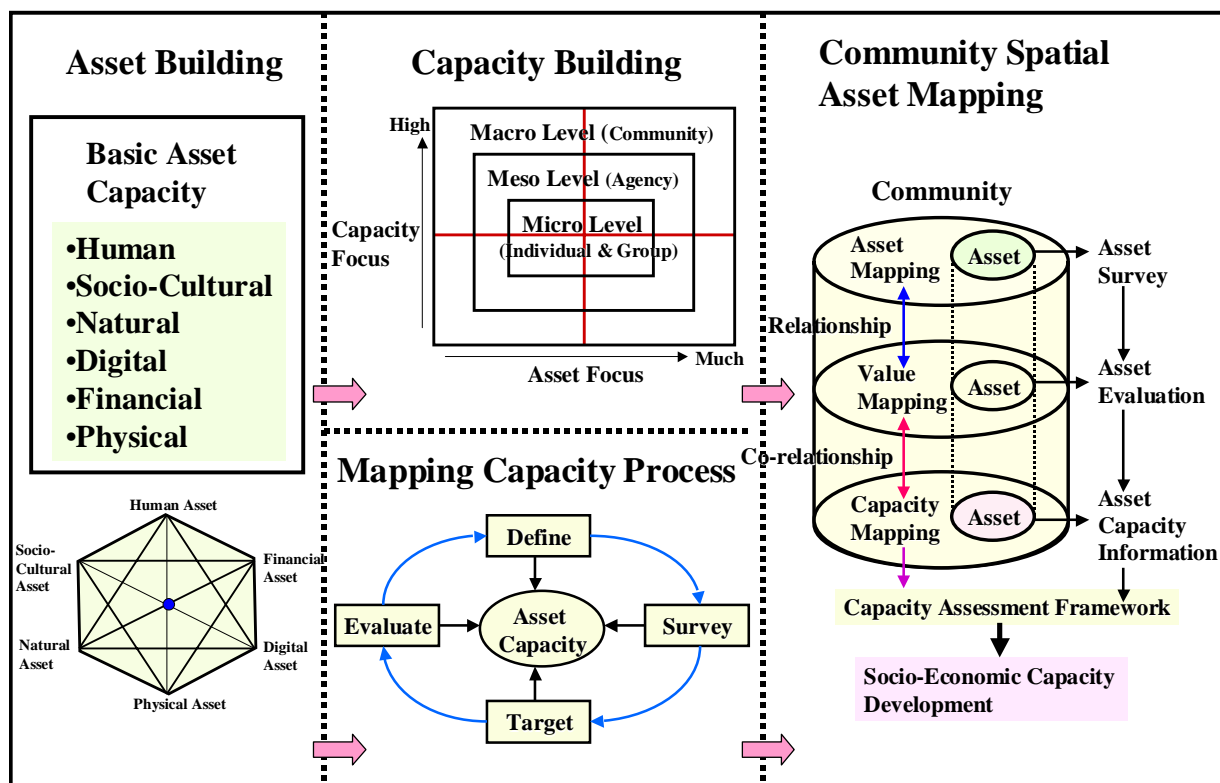


Fig. 3 Conceptual framework for asset-based community capacity

At the meso level, organizational capacity refers to the resources, knowledges and processes associated with staff, infrastructure, technology, leadership, program and process management, networks and financial resources. In this level, the aim of capacity would intend to improve potential performance of the organization that is used for the ability to meet their

goals and achieve overall missions. Organizational capacity is often impacted by external operating circumstances in terms of economic trends, socio-cultural milieu, etc.

At the macro level, community capacity refers to comprehensive capabilities of indicators of natural resources, people, socio-cultural factor, budget, transportation and infrastructure, etc. In addition, there are many different interpretations of community capacity coming from health promotion, policy and political system, education, social welfare, etc. Thus, there might not be the best way to measure community capacity. Meanwhile, our framework suggests two ways of intended target focus as to how community could make a plan for capacity building in conjunction with asset capacity development. Four categories of the relationship between asset and capacity enable community to choose the strategy of capacity-focused development or asset-focused development in accordance with their socio-economic, industrial and technical strengths and opportunities.

The decision-making of focus development requires an examination of capacity building process from definition of capacity to evaluation of capacity's impacts. A definition of individual, organizational and community capacity, capacity building and its outcome is prerequisite to determination of their strengths of asset building and development. Community asset development accompanies with different methods of community surveys to collect capacity data and information. Interpreting capacity information with the analysis of SWOT (strength, weakness, opportunity and threat) could lead to selection of target groups, asset capacity scope, and asset strategy. An evaluation of asset capacity is based on each of asset's value and capitalization that could augment the ability of capacity building. The third layer depicts the conceptual model of community spatial asset mapping linking to value and capacity mapping.

This three mapping is related or correlated each other depending on the project goal and aims of mapping undertakings. Community asset surveys and asset evaluations seem to be conventional works in GIS businesses. But there might be still few models how asset mapping could be characterized and would impact on the shape of capacity mapping in relation to socio-economic development. However, spatial asset mapping provides an analytical tool of asset capacity indicators for an interpretation of individual, institutional and communal socio-economic sustainability. Many indicators of community capacity assessment could be described as the spatial pointer of a household, group, agency and community when classifying and analyzing the strength and weakness of socio-economic capacity development.

5. CONCLUSION

Even many reports discuss the concept of capacity building and its framework for community capacity, there is still a lack of agreement as to what community capacity means and how it can be characterized. They would focus on finding measures and indicators of community capacity while less emphasizing sources of capacity and capacity building. In addition, a general understanding of capacity could lead to an ambiguous shape of capacity building and community capacity development.

Capacity building helps individuals, groups, agencies and communities to find unused and undeveloped their skills, resources and geographic advantages that enable to reconsider strengths and opportunities of the abilities of community capacity. As the nuance of capacity varies depending on diverse environments, community capacity building has a plethora of shapes and its indicators to determine process and intensity of socio-economic development. Therefore, asset mapping approach to capacity, capacity building and community capacity might have an effective way to touch scopes and extents of their asset values and asset capacity that individuals, groups, agencies and communities seek for increase of their resources, capitals, and relevant economic wealth.

In this research, a model of asset-based capacity building explicates a mechanism between asset and capacity as to how asset's input could lead to benefits of capacity building in association with effects of cost, capitalization and capacity. A framework of asset-based community capacity is also designed to expound the needs for spatial asset mapping that enables to assist value mapping or capacity mapping. A hexagonal asset mapping related to capacity could analyze socio-economic capacity development. Meanwhile, there are also limitations of an asset mapping approach to community capacity that has many different capacity indicators to be measured. Like other researches of asset mapping, it does not show how assets can be visualized in geographic space because intangible assets might have impossible map's abilities. Instead, a major contribution of this study is a creation of consistent conception of capacity building with asset mapping that provides some potentialities for further researches demands of capacity assessment in various geographic domains and community socio-economic capacity at the level of geo-information management.

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