## Soft Assets in Resilient Infrastructures



**RIKA** is social a entrepreneurship startup (DIPP-29629) with an aim of bringing research into the core of disaster management activities in India and other parts of South Asia. Resonating Sendai the declaration in relation to the need for widening the scope of Science and Technology in the disaster management, we at RIKA envision to act as a bridge connecting academic research, policy makers and field practitioners to make informed decisions and use of new technologies

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#### Introduction

Quality infrastructure is critical for sustainable city development. With accelerating population growth and overcrowding, urban communities have demanded from LGUs improved efficiency from brick and mortar (hard) infrastructure and basic services. Equally important, citizens expect from LGUs (local government units) delivery of less visible or intangible benefits, broadly called "intangible or soft" assets.

The term 'soft assets<sup>1</sup>' refer to non-physical infrastructures, as against 'hard' assets, which are physical infrastructures. This can be a combination of:

1) Institutional assets (organizational capacity: a function of knowledge, technical capacity, training, learning and growth capacity, stakeholder relationship, institutional credibility etc.); 2) Framework and systems (policy, strategy, plan), 3) Social assets (social capital, social system, social norm, value, community network), 4) Intellectual products (information, knowledge capital, research and development etc.), and 5) Computerized products and information (Apps, database etc.).

Smart Cities (SC) globally increasingly incorporate higher levels of soft assets into city planning to improve sustainability, growth, livability and well being of their citizens through innovative solutions. There are also examples where cities can improve living environments without depending on high-end technologies or newly fashionable hard infrastructure.

#### What is happening at global and national level?

Since 1980, measuring soft assets has been an important topic to accurately capture the growth of business activities. Technology development created a paradigm shit in business investment but lacked a proper monitoring framework. Intangible assets have been gaining more and more attention due to the change of the business environment and fast development of the knowledge-economy. LGUs tend to give a lower priority to soft assets than hard assets, e.g. specifically in the international development assistance context in most cases. Not only is it not their main business line but also their direct influence on outputs, outcomes and performance is more difficult to measure. Learning from past SC development, it is known that hard assets by themselves do not lead to a level of sustainability essential for long-term city development.

# Soft assets and value creation

Establishing value a will creation system contribute to long-term resilient and sustainable city growth. One example is Amsterdam, where the city has incorporated climate proof infrastructure prioritizing by nonmotorized and public transport, permeable green paving and park and recreational space offering benefits additional for water drainage and improving air quality.

Another example is Paris, where old buildings have been converted for multipurpose use such as providing office space for social enterprises, sharing workplaces, or using public space for both residents and tourists. All of these facilities aim to make a city more livable and a human place for citizens.

#### References

1. Excerpts from a recent paper: Wataya E. and Shaw R. Measuring the value and the Role of Soft Assets in Smart City Development

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Hard infrastructure and technologies are embedded in the social fabric and used to improve human interactions, bring citizens together, solving problems, and reducing barriers to access of resources. The best example of SC development needs both hard and non-physical (soft) assets and in some cases, a SC may not always need to be technically 'smart' and can rely on lower levels of technology. As the research demonstrates, intangible assets have context specific values and yield outcomes and impact through being connected and influenced by other assets in the process - causality, spillover effects, interrelation - functioning both at multiple and multi-tier levels. The key question is how can soft assets be prioritized, developed and invested in more effectively to improve SC performance?

#### What needs to be done

Resilient infrastructures and smart city development have been inter-related, where much focus has been given on the smart technology, and hard infrastructures. However, as argued above, soft asset is a vital pillar of resilient infrastructures. Following are some key thoughts in this regard:

- *'Legislation, Policy, Strategy'*\_is the backbone of an LGU's activities and directly support its missions.
- Regarding 'Connectivity and Network', two levels of connectivity and networks are considered. One is between LGU and communities, and the other is among communities. This approach can be used as the foundation of establishing a quality communications channel to create a feedback system to improve service provision.
- 'Innovative approaches' generally indicates creating new and effective approaches for making the status better. But in this framework, problem identification and solving competencies at both LGU and community level are also included. The value and benefit for citizens is highly relevant to this domain (or area).
- 'Smarter services via technology-linked hard infrastructure' directly linked technology issues to provide effective and efficient services not only meets the beneficiaries/stakeholders (=citizens) needs, but also secures continued support from legitimate authorities.
- 'Equal access to services, Security'\_is one of the principles of city development. Thus, this domain links to continued support from stakeholders and beneficiaries as well as being crucial to maintaining social stability and citizen wellbeing.
- 'Community engagement' is a driving force of improving service quality as well as a key factor in strengthening community capability and nurturing city by citizens over the long time.
  - *'Security'* is also the basic principle that is the same as 'Equal access'. By provision of stable and reliable services, LGUs can secure funding and other soft assets to plan and implement LGU activities for its citizens and community.