

Using the Community Capitals Framework to Enhance Disaster Resilience

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Introduction

There are a number of national and international initiatives focused on community resilience to disasters, for example...

- United Nations Office for Disaster Risk Reduction – Disaster Resilience Scorecard (Global)
- National Institute of Standards and Technology – Disaster Resilience Framework and Guidelines (U.S.)
- Rockefeller 100 Resilient Cities (Global)
- Zurich Alliance Resilience Initiative (Global)

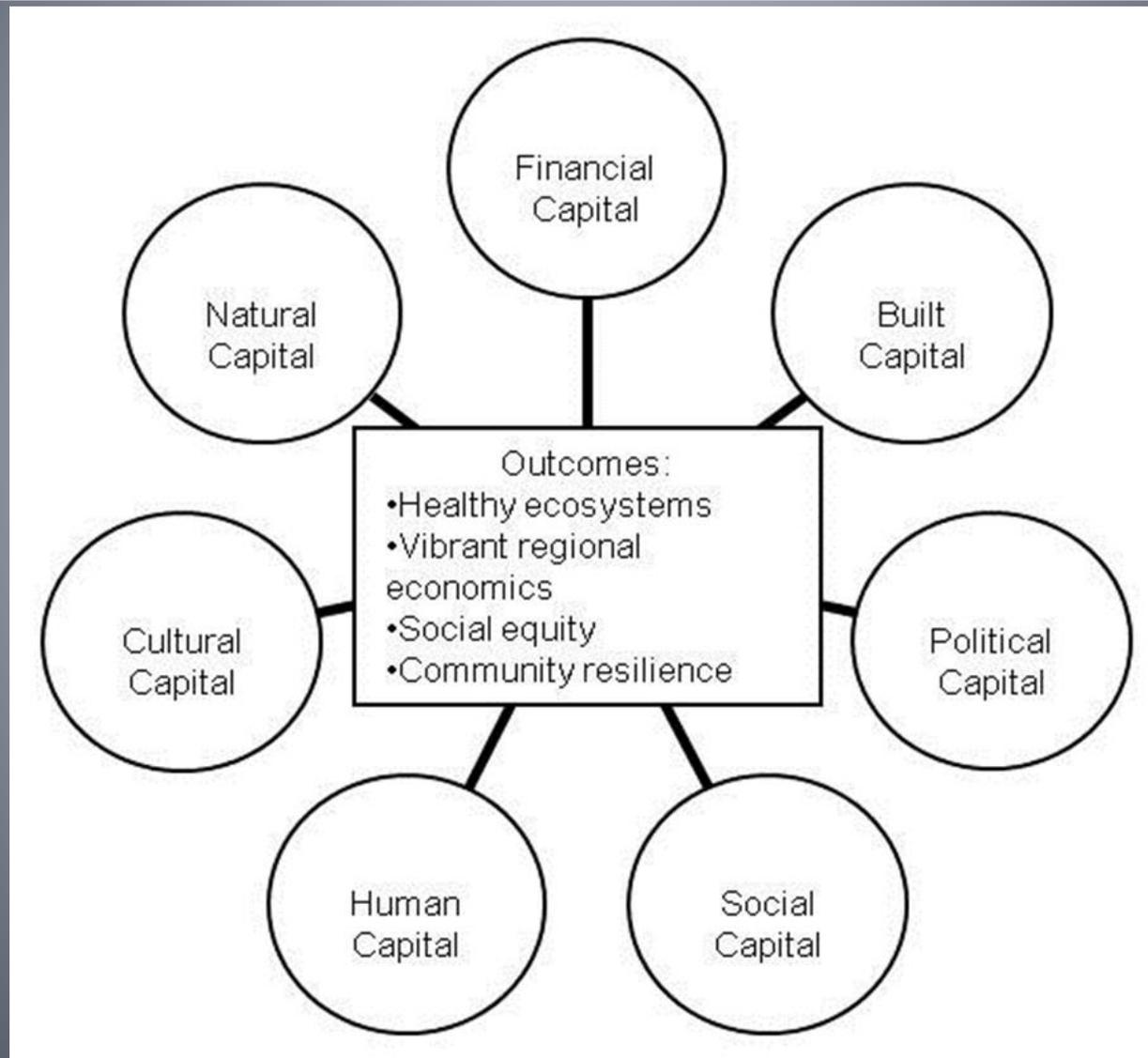
“the capacity to withstand loss, the capacity to prevent a loss from occurring in the first place, and the capacity to recover from a loss if it occurs” (Buckle 2006:91).

- The magnitude of shock that the system can absorb and remain in a given state.
- The degree to which the system is capable of self-organization.
- The degree to which the system can build capacity for learning and adaptation.

This presentation builds on Flora and Flora and their Community Capitals Framework...

- The CCF is a practical framework for researchers, practitioners, and local stakeholders with respect to disaster resilience
- Based on Flora and Flora's (1993) concept of resource mobilization, adapted to concentrate on how to most effectively mobilize resources throughout the disaster cycle
- Addresses a critical need to further engage in dialogue about how to effectively build community resilience

The Community Capitals Framework



* Adapted from Flora and Flora 1993.

The Seven Types of Community Capitals

Natural Capital—resources (air, land, water, minerals, energy) and the overall stability of ecosystems.

- Natural capital is vital to human survival and fundamental to society.
- In the context of a disaster, natural capital represents basic necessities that support human life, ranging from uncontaminated air to potable water to renewable resources.
- A community's relationship with its natural environment influences how it prepares for and responds to disasters.
- The environment is also a source of natural hazards the communities need to consider for preparedness and mitigation.

The Seven Types of Community Capitals

Cultural Capital—language, symbols, mannerisms, preferences, attitudes, and orientations.

- Cultural capital influences a community's capacity to draw on its collective experiences and shared values, which enhances resilience.
- Disaster subcultures and local knowledge are important aspects of cultural capital.
- Cultural capital is especially important in times of need, such as during long-term post-disaster recovery.
- Cultural capital helps to cultivate other forms of capital including but not limited to social capital, political capital, and financial capital.
- It also reflects values associated with natural and built capital.

The Seven Types of Community Capitals

Social Capital—social networks, associations, and the reciprocity and trust generated by them among groups and individuals.

- Social capital generally enhances a community's ability to work toward collective goals, which is necessary for disaster mitigation, preparedness, response, and recovery.
- It contributes to resilience by enhancing sense of belonging and by strengthening bonds between individuals and groups.
- Bridging social capital affords connections needed to solicit and leverage external support.
- Social capital also facilitates access to other forms of capital essential to resilience.

The Seven Types of Community Capitals

Human Capital—knowledge, skills, education, health, and physical ability.

- Human capital is fundamental to community resilience in that economic development and capacity building require a skilled, trained workforce.
- Knowledge and skills for preparing and responding to disasters are part of human capital.
- Human capital facilitates efforts in all stages of disasters, ranging from mitigation and preparedness to response and recovery.
- Preparations for public health and mental health consequences of disasters are important considerations.

The Seven Types of Community Capitals

Political Capital—the ability to access to resources, the power to influence their distribution, and the ability to engage external entities in efforts to achieve local goals.

- The power, authority, and connections (both within and external to a community) that are associated with political capital are essential to ensuring community resilience.
- Sometimes considered a type of social capital, political capital tends to be somewhat more formal in nature although it exists informally, as well.
- Effective and responsible use of political capital can foster resilience by actively involving vulnerable populations in pre- and post-disaster planning and by ensuring that traditionally underrepresented groups have a voice.

The Seven Types of Community Capitals

Financial Capital—financial savings, income, investments, and available credit.

- Financial capital has significant implications for disaster resilience.
- In contemporary society, of all the capitals, financial capital it is the most easily converted to other forms of capital.
- For example, post-disaster investment of financial capital may result in reconstruction of roads and bridges, or construction of new facilities (built capital).
- It can enhance human capital by funding education and training.
- Financial capital also provides a basis for political capital, which in turn affects emergency management and disaster-related policies.

The Seven Types of Community Capitals

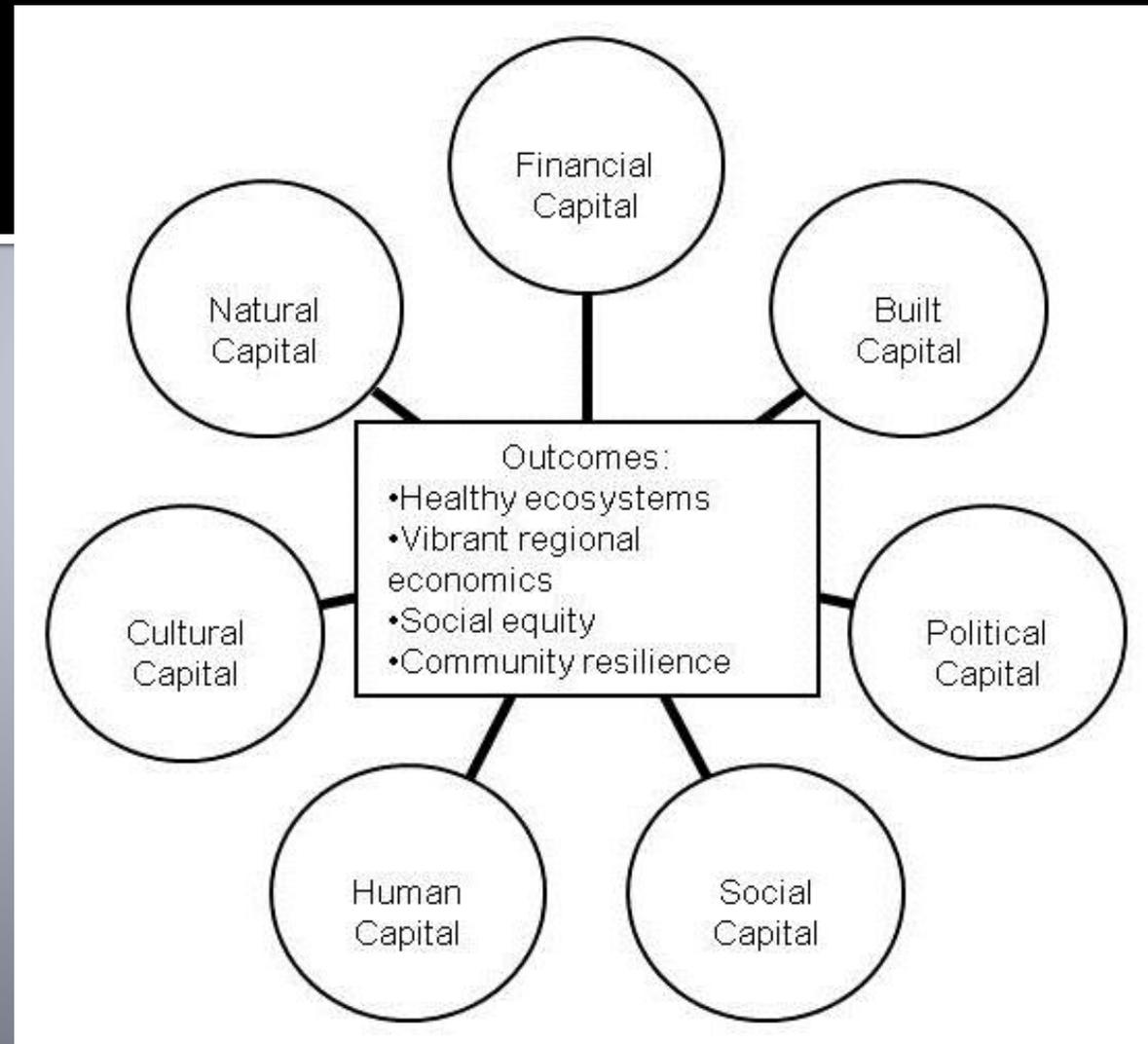
Built Capital—physical infrastructure and lifelines in a community, as well as critical facilities and services.

- In the event of a disaster, built capital (e.g., roads, bridges, waterways, sewer and water systems, pipelines, telecommunications systems, power plants, public transportation) may be rendered inaccessible or it may be damaged or destroyed, necessitating repair or reconstruction.
- Disruption of critical services (e.g., medical, public safety and protection) is also likely following a disaster; resumption of these is vital to recovery and the manner in which this is accomplished influences a community's resilience.
- The built environment may also be a source of technological hazards.

Characterizing Community Capitals

Community capitals are...

- Related and interactive
- Collectively available within given communities
- Assets that may be wisely invested, spent, and misspent
- Used to advance community growth, sustainable development, and resilience
- Exercised to enhance overall quality of life



Community Capitals and Disasters

“Understanding the extent to which various forms of capital exist in a community can help to inform efforts to increase resilience.”

Ritchie and Gill 2013.



- Variable effects
- Emergence
- Interdependent and interrelated aspects
- Issues of measurement
- Stakeholder interests
- Community valuation
- Stakeholder access
- Community access, understanding, and use

Community Capitals and Disasters

All forms of capital are necessary for a resilient community; however, none are sufficient in and of themselves.

- Typically, built and financial capital receive more attention and priority in disaster planning—partly because they are more tangible and more easily measured than other types of capital.
- Fostering resilience necessitates consideration of each of the capitals and the ways in which they work together.
- Some forms of capital must be spent or invested to restore other forms.
- For example, political capital may be used to access financial capital and human capital which, in turn, facilitate the restoration of natural capital and the recovery of built capital.

Community Capitals and Disasters

Some forms of capital are easier to measure than others.

- Resilience research to date underscores the idea that certain types of capital are easier to measure than others.
- This is reflected in efforts to create resilience indices using extant data and is also evident in work to develop new valid and reliable measures of resilience.
- Most current approaches focus on using readily available secondary data sets, which usually consist of indicators related to built, financial, and human capital, and to a lesser extent natural capital.
- Social, political, and cultural capital tend to be much more difficult to measure and, consequently, data for these capitals are rarely collected and are usually not available as secondary data.

Community Capitals and Disasters

In the aftermath of a disaster, certain stakeholders have a more vested interest in restoring, repairing, rebuilding, or replenishing specific forms of capital.

- Collectively, as well as individually, victims and survivors are most directly affected by damage to or changes in the capitals following a disaster and have the most to lose or gain during recovery processes.
- Once immediate response efforts and short-term recovery activities are complete, it is area residents including those displaced by a disaster who must deal on a daily basis with the longer-term impacts of the event.
- Those with formal roles such as emergency managers, first responders, and government officials, are usually responsible for attending to issues related to built, natural, and financial capital, and to a lesser extent human and political capital.

Community Capitals and Disasters

Individual communities and groups within communities place different value on various forms of capital.

- In disaster planning, it is essential to consider ways in which communities and groups within them value different forms of capital.
- These values are reflected in how resources are spent and invested, and how restoration, replenishment, and reconstruction of the various capitals are prioritized.
- Community-specific (local) knowledge about the value of each of the seven capitals to a given community and groups within that community can help to prioritize disaster planning efforts.
- For example, if a local economy relies heavily on natural capital for tourism or commercial agricultural production, then restoration of natural resources is likely to be a priority.

Community Capitals and Disasters

Various stakeholders possess and have different levels of access to community capitals.

- The inclusion of traditionally vulnerable populations is paramount to promoting disaster resilience. The CCF emphasizes the need for and value of participatory approaches that involve these groups , as well as displaced populations.
- Disasters tend to create “winners” and “losers,” thus, understanding how community capitals interact to exacerbate or ameliorate such circumstances is important.
- Delineating the various forms of capital offers an approach to illustrate ways in which vulnerable populations have limited access to them and to subsequently implement strategies to alleviate the situation in the event of a disaster.
- Achieving resilience requires that all stakeholder groups have a voice in defining and participating in disaster planning processes.

Community Capitals and Disasters

Understanding the availability of local community capitals, how they are related, and how to access and use them can help to offset policy-related challenges to resilience.

- Federal and state guidelines and policies are repeatedly cited as being weak, lacking the necessary “teeth” to support effective hazard and risk reduction efforts, as well as planning at a local level.
- “Improving the existing federal delivery system will require a major emphasis on state and local capacity-building that is currently not in practice” (Smith and Wenger 2006: 242).
- Consequently, state and local mitigation efforts are commonly based on ill-conceived plans that are often developed after a disaster strikes.

Future Directions

Integrating and adapting these ideas into ongoing and future work...

- Build on the decades of work and experience associated with the CCF
- Learn more about the interactions between the various forms of capital in various stages of the disaster cycle—preparedness, response, recovery, and mitigation
- Link the micro-, meso-, and macro-levels of the various forms of capital
- Move from the “what” to the “so what.” How do different levels of capital affect community resilience? The resilience of different groups within communities?

Discussion

