Sustainable, Green, Smart Growth, Livable and Innovative Communities
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Abstract

The United Nations University and UNEP-IETC set up a joint initiative on "Innovative Communities" – drawing parallels between the innovativeness in private sector entities that enables them to respond to market demands, and innovativeness in communities that enable them to respond to environmental management needs.

Focusing on the communities to manage the local environment is not new. A number of approaches and concepts have been put forth. Key among these is 'sustainable communities' – what are the differences and similarities between the different concepts? What can we learn to better appreciate the uniqueness of the approach taken by Innovative Communities? Regan Reader, an intern at UNEP-IETC, wrote the following brief exploration of these issues during September 2002
Sustainable Communities

As with 'sustainable development', there is no single accepted definition of sustainable communities. Much of the literature recognises that communities must define sustainability from a local perspective. The dilemma is how to encourage democracy (participatory local processes) within a framework of sustainability (e.g., acknowledging global as well as local biophysical limits, inter- and intra-generational social equity, and an economy that satisfies individual and community needs rather than one that simply grows).

One interpretation of a sustainable community is a settlement which:

1. Has a stable, healthy population
2. Understands that humans are only one of many life forms which share a sustainable region
3. Is a population with a strong sense of place, history, and global responsibility
4. Is empowered to guide an ecologically regulated economy based on the sustainable harvest and conservation of local natural resources
5. Shares both its surplus production and culture with other communities and regions
6. Has a collective ethic of conserving its culture and natural resources for future generations
7. Does not export pollution to other regions
8. Does not base its affluence on the draining of other regions of their resources
9. Reduces to a minimum income leakages which leave the community
10. Gains fullest possible value from harvest and manufacturing of natural resources through use of locally controlled and adapted appropriate technologies
11. Is committed to the goal of providing equal opportunity for a high quality of life for all residents of the community
12. Is a population which strives to continuously learn of its changing needs through the passage of time

The building of sustainable communities requires sustainable community development, a community-based approach to development, which relies on self-help, community economic development, and ecological principles. This approach incorporates five major goals:

- Working toward self-reliance
- Harmonising with nature
- Attaining community control
- Meeting individual needs
- Building a community culture

Case Study

Village Homes, Michael and Judy Corbetts' 70-acre (28 ha), 270-unit solar subdivision in Davis, California is a pioneering example of sustainability-by-design that has received considerable attention (e.g., Lang and Armour 1982, CalOAT 1979). The community is extremely energy efficient through intensive land use, prominent use of solar energy, functional landscaping (e.g., trees were selected for maximum summer and minimum winter shading), energy-efficient transportation (all roads end in cul-de-sacs, making it faster to walk than drive from one area to another, and a comprehensive greenbelt pathway is tied into the
city bikeway network), and the active involvement of residents. The Corbetts attempted to promote "sense of community" through physical design and by establishing a homeowners' association to allow residents to participate in development and management decisions. (They also chose to reside in the community and Michael Corbett later became mayor of Davis.)

Green Communities

Green Communities are "sustainable communities": communities that integrate a healthy environment, a vibrant economy, and a high quality of life. Green Communities strive to:

- Comply with environmental regulations, reduce their consumption of natural resources and practice pollution prevention.
- Actively involve all citizens and incorporate local values into decision-making.
- Support locally-based businesses. Encourage walking, biking, and mass transit.
- Provide open space.

Case Study

The Swatara Creek Watershed encompasses 570 square miles in Berks, Dauphin, Lebanon and Schuylkill Counties in southcentral Pennsylvania. The watershed embraces all or part of 46 cities, boroughs and townships with a total population of 840,665 and growing. The watershed is characterised by forested uplands, rolling farmlands, a long-standing German and Amish culture, a variety of recreational opportunities and diverse economies (including the home of Hershey chocolates!). The active groups, including the Quittapahilla Creek and Manada Conservancy, Lebanon Valley Rails-to-Trails, the Northern Swatara Association, Sweet Arrow Lake and Union Canal Tunnel Park groups, mobilise hundreds of volunteers to stabilise streambanks, preserve history, acquire sensitive lands, create trails and more.

As a participating Green Community, the SCWA and its partners will continue to focus on the restoration of the watershed through administration of abandoned mine drainage abatement projects (with County Conservation Districts), assist in county stormwater management planning in cooperation with the PA DEP Bureau of Watershed conservation, assist in greenway design along the Swatara Creek, and work with industry and DEP to reduce non-point source pollution. The recent award of a PA Department of Conservation and Natural Resources River's Conservation grant will assist in further action planning for the watershed.

The SWCA exemplifies the tenets of community-based environmental protection and the goals of the Green Communities Program. The commitment to have broad stakeholder participation, to view the watershed in a more holistic way, to develop partnerships with local, state and federal agencies, to focus on results and to build capacity to move forward sustainable development activities are all key to building livable, Green Communities.

Smart Growth Communities

Smart growth is development that serves the economy, the community, and the environment. It changes the terms of the development debate away from the traditional growth/no growth question to "how and where should new development be accommodated." Smart growth planning and design approach use a range of policies and programs to support continuing growth but in a way that is sustainable and of high quality.
In communities throughout the world, there is a growing concern that current development patterns—dominated by what some call "sprawl"—are no longer in the long-term interest of our cities, existing suburbs, small towns, rural communities, or wilderness areas. Though supportive of growth, communities are questioning the economic costs of abandoning infrastructure in the city, only to rebuild it further out. They are questioning the social costs of the mismatch between new employment locations in the suburbs and the available work-force in the city. They are questioning the wisdom of abandoning "brownfields" in older communities, eating up the open space and prime agricultural lands at the suburban fringe, and polluting the air of an entire region by driving farther to get places. Spurring the smart growth movement are demographic shifts, a strong environmental ethic, increased fiscal concerns, and more nuanced views of growth. The result is both a new demand and a new opportunity for smart growth.

Smart growth recognises connections between development and quality of life. It leverages new growth to improve the community. The features that distinguish smart growth in a community vary from place to place. In general, smart growth invests time, attention, and resources in restoring community and vitality to center cities and older suburbs. New smart growth is more town-centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses. It also preserves open space and many other environmental amenities. But there is no "one-size-fits-all" solution. Successful communities do tend to have one thing in common—a vision of where they want to go and of what things they value in their community—and their plans for development reflect these values.

**Smart Growth Principles**

1. Mix Land Uses
2. Take Advantage of Compact Building Design
3. Create a Range of Housing Opportunities and Choices
4. Create Walkable Neighborhoods
5. Foster Distinctive, Attractive Communities with a Strong Sense of Place
6. Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas
7. Strengthen and Direct Development Towards Existing Communities
8. Provide a Variety of Transportation Choices
10. Encourage Community and Stakeholder Collaboration in Development Decisions

**Livable Communities**

An American originated concept for reshaping neighborhoods and business areas to meet changing market demands, allowing cities to maintain their own health and desirability. In the process, they reduce some of their regions' pressure for outward expansion, potentially retaining open space or agriculture, reducing commutes and regional costs for infrastructure and public services. The 21st century cities that result may be sustainable in two senses: as desirable places to live and as communities that use proportionately fewer non-renewable resources.

As these cities continue to accommodate more residents, they are balancing the competing demands of creating new development and maintaining or reinvesting in existing neighborhoods and business areas that may be 20 to 40 years old. For many of these cities, this balance is expressed in neighborhood-oriented programs, an emphasis on parks and green
spaces that link communities together and reinvestment in downtowns and brownfields. Several, including Houston and Columbus in the United States, have innovative neighborhood planning and investment programs. These major cities of the postwar era suggest the strategies that will create a livable and sustainable city for the 21st century as well as the challenges a livable city must address.

- Provide a "product" that responds to the demands of individual residents and potential future residents
- Expect to use partnerships and collaborations to solve problems
- Continually reinvest to transform the "existing" parts of the community to meet changing business and residential needs
- Provide alternatives so residents have more choice in the ways they travel, communicate and access services and amenities
- Recognise and accommodate the interests of a diverse population, so this diversity is a strength and not a source of conflict

Innovative Communities

An innovative community is one that has sustained a wellspring of creativity, with the capacity to stimulate, nurture, develop and productively harness the inherent innovative qualities of its people. Innovation is quintessentially a human activity - it is natural, proactive, innate, non-linear, and in its purest form for the individual, it represents a pinnacle of self-actualisation. In most cases, innovation has become a threshold for success.

An Innovative community is not one founded to produce and distribute products invented by a single individual. Nor is it a community with several innovative individuals within it. An innovative community has the means to stimulate, nurture and develop innovation in its people. It has the proclivity to harness its people's innovativeness in such a way as to create sustainable lifestyles.

Innovative communities, therefore, are able to bring in new methods, ideas, etc. to improve their environment, and initiate changes through human intelligence, especially of imaginative thought or artistic ability.

What does it take for a community to be innovative? Why are some communities innovative and others not? Preliminary research carried out under the project highlighted some of the key features of innovativeness communities, which are encapsulated into the following four essential features:

1. Communities have abilities and creativity at all levels to design community visions and initiate activities by themselves to fulfill the visions, as well as capacities to take action by applying appropriate technologies, methods and tools to respond to actual needs
2. Communities have sufficient knowledge on their environment (natural, cultural, historical, etc.), and available resources accumulated and stored within the communities. With available knowledge and resources, communities take a holistic approach, acknowledging basic human needs, and relating it to human development, the elimination of poverty, environmental sustainability and the integrated management of environmental resources.
3. Communities have abilities to work under the shared commitment of all related partners, by combining their technical expertise, skills, and willingness to work in partnership with actors within and from outside communities.

4. Initiatives taken by communities contribute to the solution of not only local environmental problems in a short-term, but also global environmental problems in a long-term scale.

**Comparison Of Innovative Communities With Related Concepts**

**Sustainable Communities**

- Unlike several of the other concepts, it is more broadly used and less easily defined
- Similar to concept of Inn.Comm. in that it places great emphasis on local perspective
- Involves a biophysical dimension, with consideration of other lifeforms
- Not restricted to cities/ urban areas
- Awareness of impacts beyond community boundaries - like Inn. Comm. concept, 'thinks globally'
- Has willingness to 'continously learn of its changing needs over time', rather than simply 'growth' as an objective - like Inn.Comm. concept, temporal view is longer rather than shorter term
- Economic dimension seen as important but not central

**Green Communities**

- Appears to be in use particularly in the United States
- The preservation and enhancement of the local environment seem to be key goals
- Less incorporation of 'think globally' - emphasis is largely limited to the boundaries of the community
- Like Inn.Comm. holistic approaches are promoted
- Social aspects of community is central - participation in democratic processes, healthy/ environmentally friendly transportation, and 'attractiveness' of local environment for residents are key
- Value of environment seems to be instrumental and directly related to resident's quality of life

**Smart Growth Communities**

- Much more from an urban planning/ economic perspective
- The order of importance for smart growth seems to be the economy, the community and the environment
- Assumption of continuing growth (of city and economy)
- At higher decision-making levels - involves policies and programs rather than grassroots community activism
- Direct spatial component to concept of community with emphasis on city center and older suburbs
- Innovation (as related to city planning and design) is promoted, although environmental issues appear to be considered only as far as they affect the convenience/mental/ physical health of residents
Livable Communities

- US based concept for certain post World War II cities (primarily in the US) and the particular (innovative), and desirable ways in which they have evolved
- Strong free market perspective with emphasis on communities changing to meet market demands, that the needs of the business community be met, and that residents be provided with the maximum possible options (regarding transportation, communication and services access)
- Instrumental view of environment, with the halting of urban sprawl allowing continued economic benefits to agricultural sector
- City design treated as a 'product' which responds to the needs of residents, motivation of livable community development is to attract additional residents and maintain existing ones.
The UNEP - DTIE International Environmental Technology Centre

Established in April 1994, the International Environmental Technology Centre (IETC) is an integral part of the Division of Technology, Industry and Economics (DTIE) of the United Nations Environment Programme (UNEP). It has offices at two locations in Japan - Osaka and Shiga.

The Centre's main function is to promote the application of Environmentally Sound Technologies (ESTs) in developing countries and countries with economies in transition. IETC pays specific attention to urban problems, such as sewage, air pollution, solid waste, noise, and to the management of fresh water basins.

IETC is supported in its operations by two Japanese foundations: The Global Environment Centre Foundation (GEC), which is based in Osaka and handles urban environmental problems; and the International Lake Environment Committee Foundation (ILEC), which is located in Shiga Prefecture and contributes accumulated knowledge on sustainable management of fresh water resources.

IETC's mandate is based on Agenda 21, which came out of the UNCED process. Consequently IETC pursues a result-oriented work plan revolving around three issues, namely: (1) Improving access to information on ESTs; (2) Fostering technology cooperation, partnerships, adoption and use of ESTs; and (3) Building endogenous capacity.

IETC has secured specific results that have established it as a Centre of Excellence in its areas of specialty. Its products include: an overview on existing information sources for ESTs; a database of information on ESTs; a regular newsletter, a technical publication series and other media materials creating public awareness and disseminating information on ESTs; Local Agenda 21 documents developed for selected cities in collaboration with the UNCHS (Habitat)/UNEP Sustainable Cities Programme (SCP); training needs assessment surveys in the field of decision-making on technology transfer and management of ESTs; design and implementation of pilot training programmes for adoption, application and operation of ESTs; training materials for technology management of large cities and fresh water basins; and others.

The Centre coordinates its activities with substantive organisations within the UN system. IETC also seeks partnerships with international and bilateral finance institutions, technical assistance organisations, the private, academic and non-governmental sectors, foundations and corporations.

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