Sustainable Urban Regeneration
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1. Issues faced by mega cities

The challenges faced by "old" mega cities in the industrialized world or "new" mega cities in countries with rapidly expanding or more stagnant economies are both similar as well as different. Regardless of the national and regional context, old and new mega cities share a number of characteristics critical for sustainable development, among them 1) demographic pressures in terms of a large and often rapidly growing population (demands on urban infrastructure, poverty, crime); 2) large scale use of natural resources such as land, water, energy and the generation of large amounts of waste; 3) a deteriorating, often unhealthy environment, due to air and water pollution, high noise levels, etc.; 4) a high vulnerability to natural and man-made disasters as a result of concentration and multiplier effects; and, 5) relative isolation from surrounding rural areas due to intensive development of market and trade systems. While being focal points of environmental and social problems, these large cities are at the same time the economic centers and often the growth engines in their countries, particularly in the developing world. They tend to produce the lion share of the national GDP.[1] With stagnant population growth in OECD countries, about three quarters of the 22 mega cities, expected to exist by the year 2015, will be located in the developing world.[2]

In terms of urban regeneration or questions of urban renewal the problems to be addressed in "old" mega cities are quite different from those in rapidly growing mega cities in, for example, India, South East Asia or Central and South America. Issues of urban renewal in OECD mega cities range from strategies required to deal with dilapidated urban neighborhoods, often breeding grounds for crime and poverty, characterized by inadequate shelter and infrastructure accessibility for its inhabitants (lack of good schools, shopping facilities, safe public spaces for leisure and recreation), to questions of how to reuse, revitalize, or replace large defunct production and other commercial facilities such as old factories and warehouses, and how to deal with legacies of contaminated soil, etc.

By contrast, many mega cities in developing countries are faced with growing demands for space for commercial activities, and concomitant infrastructure requirements, such as transportation, housing, education, health services and leisure facilities. At the same time, the allocation of space, shelter and basic livelihood resources for poor rural immigrants, settling at the fringes of the cities or in pockets of unattractive areas inside the city, poses another challenge. In these cities, rapid growth due to large scale construction activities are observed. In many cases large buildings are designed, taking into consideration only their immediate site. The effects they may have on the city as a whole are not considered sufficiently, ranging from problems of contributing to heat island phenomena, wind flow obstruction to negative effects on the urban "landscape" and its esthetic or historical qualities.

Adequate policies and planning measures are urgently needed to counteract such negative effects and to ensure that "solving one problem here" does not "lead to other problems there".

2. Problems in relationship to sustainable urban regeneration

Thus, the specific problems in relationship to urban regeneration may have different characteristics. If they are to be addressed in a way that contributes to sustainable development, a systemic view of the linkages between environmental, economic, and social/cultural implications of planned interventions is required. Some examples:

1) Even if a building itself is sustainable enough, i.e., durable, a building not used properly will become non-sustainable. With this consideration, the smooth conversion of the use of a building is an important issue. However, if the conversion is conducted in an unplanned manner, it may destroy the urban heritage *(collective memory)*, i.e., historical townscape preservation, the social "fabric" in the area, balanced land use, and so forth. For example, the building may be economically efficiently used for a special type of commercial activity, but this type of use may destroy the residential environment and therefore the whole area might suffer negative effects. Thus, land use control that supports easy conversion but also protects regional social and cultural heritage, is quite important. This issue is especially serious in Japan.

2) If the rapidly expanding central business district of a mega city in South China is "swallowing" previously "self-contained villages" which have now become urban neighborhoods, questions of what should be preserved, what should be changed become important. Issues of concern are small scale commercial activities, social relationships and local customs, the qualities of public places, ancestors halls, old temples and the mix of new and old housing. How the use of scarce space can be optimized, the demands for additional and more comfortable housing and new job opportunities reconciled with the preservation of cultural history and artifacts, and the web of local networks and activities is the challenge.

3) For many of the old mega cities the issues are qualitative rather than quantitative growth. If poor inner city districts are to be revitalized, if new housing stock is built, parks and leisure facilities added, old commercial buildings transformed into modern local markets, the displacement of the previous inhabitants becomes an issue. Where do they go, if housing becomes unaffordable, if the job in the neighborhood grocery store is lost, the school closed down?

4) Limited financial public resources make it difficult to invest a large amount of money in many redevelopment projects. Therefore, public policy to deal with urban problems needs to create incentives for other actors, like private investors, to jointly envision and pursue implementation activities for an economically, socially and environmentally healthy urban development with benefits for all of the groups affected. The role of government thus also becomes one of process mediation rather than one of project execution.

3. Potential contributions to our session "Sustainable urban regeneration"
In line with the conference theme "action for sustainability", the goal of this unit is not primarily a theoretical discussion about urban regeneration, rather participants are asked for contributions of concepts, experiences, case studies, insights and lessons learned. As problems of urban district regeneration are complex and multi-disciplinary by nature, contributions from different disciplines, urban planning, sociology, political science, engineering, architecture, history, etc. are welcome.

Research and policy papers are elicited for this session that address the linkages and dynamics of these interrelated issues by providing i.e.
- theoretical and conceptual contribution to sustainable urban regeneration and development
- empirical contributions, i.e. successful case studies or best practices linking questions of sustainable design and (re)-construction with the broader issues mentioned above.

Abstracts are invited that address one or several of the following questions:

A) What are possible definitions and models of sustainable district regeneration
Under this heading the focus is on key criteria and useful indicators for sustainable urban district regeneration.

What conceptual models and frameworks are useful for defining goals for sustainable renewal and developing measurable indicators?

How have such models been put into practice – successes and failures? (Examples of case studies – successes and failures, best practices?

What linkages can be made between sustainable building design in terms of i.e. use of appropriate technologies and adaptation of traditional materials and construction approaches and other (economic/social/cultural) aspects of sustainable urban regeneration?

B) How can problems of urban regeneration be addressed by linking knowledge to action?
Under this heading the focus is on planning, decision-making and implementation processes.

How can the tensions between stakeholder interest formulation in the context of democratic structures and participatory processes be reconciled with necessary interventions related to issues of sustainable urban development (i.e. air and noise pollution, energy consumption, bio-diversity, poverty, waste generation and treatment, etc.)?

What role can cooperative planning processes involving multiple stakeholders play in successful urban renewal projects (i.e. public private partnership, citizen participation models)?

What can be learned from top/down versus bottom/up initiatives (i.e. the role of local citizens movements and initiatives)

What kind of social system may support collective and cooperative decision-making processes moving toward a sustainable development. What are theoretical conditions to support such social system? Are there best practices examples to show how such systems have worked successfully?

C) How can the issue of scope and interdependence be addressed?
Urban districts are no islands; they are part of the larger city, which in turn is connected to the region and the "hinterland" for the procurement of resources

How can the linkages between different levels of interventions (neighborhood, city, region) be understood, analyzed and strengthened?

What kind of regulations, policies, planning tools and decision-making structures can support a broader perspective and prevent that solving one problem at one level, may create other problems at other levels?

What makes an ideal linkage between a central city and surrounding rural areas? Linkage in this context should involve many aspects like economic, environmental, social aspects.

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[1] Sources: United Nations Center for Human Settlements, 2001; United Nations Department of Economic and Social Affairs; World Bank, 2000.

[2] Source: United Nations Department of Economic and Social Affairs, 2002.