

# Urban Environmental Sustainability and Good Governance: An Indian Experience

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The issue of environmental sustainability and sustainability of mankind when put into the ambit of local government certain new dimensions crop up. The role of urban local bodies has been identified as crucial to the issue of attaining urban environmental sustainability. It has been observed at the Earth Summit that the role urban local bodies is of immense significance as to the attainment of the goals of environmental governance and building of institutional capital in the fold of social capital.

The purpose of the paper is to examine the incidence of local initiative in India in the field of local environmental sustainability and local sustainable development. The paper is divided into three sections: **Section I** shall focus on the UN HABITAT and its worldwide impact in the realization of the LA 21 as a caveat for urbanization and environmental sustainability and how it has evolved the idea of urban environmental sustainability and good governance. **Section II** shall focus on how far the urban local bodies in India have strived to achieve the standards put forward by the United Nations Habitat in ensuring environmental sustainability through 'local initiatives' to materialize the idea of 'think globally, act locally' and shall search the formal structures available within the constitutional set up to accommodate the ideas of environmental sustainability and sustainable development. As Janicke and Weidner identifies the factors like structures, situations, actors, strategies and time as the road to the success in environmental governance, how far these conditions has been achieved by the local government to initiate pro-environment sustainable urban development. **Section III** shall find out the parameters enduring participatory democracy at the level of local government and take up the case study of the Kolkata Municipal Corporation in ensuring the issues of environmental sustainability and sustainable development and how far 'soft governance' has been incorporated.

Before we delve into a concise discussion of urban and environmental sustainability let us have a glimpse over some global and regional facts and figures which would enable us to consider the necessity of an enduring approach towards urbanization and its impact on environment. The following facts and figures reveals that globalization has left deep impact on urban proliferation and urban centers have evolved as the lucrative domain of economic networking and business hub and the persisting trend shall follow in future as well.

At the global level

In 1800, only 2 per cent of the world population was urbanized.

In 1950, only 30 per cent of the world population was urbanized.

In 2000, 47 per cent of the world population was urbanized.

More than half of the world population will be living in urban areas by 2008.

By 2030, it is expected that 61 per cent of the world population will live in urban areas.

Almost 180,000 people are added to the urban population each day.

It is estimated that there are almost a billion poor people in the world; of this over 750 million live in urban areas without adequate shelter or basic services.

In 1950, New York City was the only city with a population of over 10 million inhabitants.

By 2015, it is expected that there will be 22 cities with populations over 10 million.

Of the 22 cities expected to have population of more than 10 million by 2015, 17 will be in developing countries. 13 of these are situated in the Asia-Pacific region.

At the regional level

The urban population of developing countries is expected to reach 50 per cent by 2020.

The population of urban areas in less developed countries will double from 1.9 billion in 2000 to 3.9 billion in 2030. The urban population of developed countries is expected to increase very slowly, from 0.9 billion in 2000 to 1 billion in 2030.

The urbanization process in developed countries has stabilized with about 75 per cent of the population living in urban areas. By 2030, 84 per cent of the population in developed countries will be living in urban areas.

In 1999, 36.2 per cent of the Asian population was urbanized with the urban growth rate at approximately 3.77 per cent.

The urban population of developing countries is expected to reach 50 per cent in 2020.

By 2030 Asia will have higher numbers of urban dwellers than any other major area of the world, except Africa.<sup>1</sup>

The growing economic network among the countries has made urbanization invincible. As a matter of fact cities are emerging as crucial actors in carrying forward the impromptu of globalization. The 21st century has been recognized as 'The Urban Millennium' by the United Nations former Secretary of State, Kofi Annan to indicate as well as appreciate the fact that the world is becoming increasingly urbanized. Simultaneously he has been prudent enough to raise the moot point that

'since urbanization offers both promise (as hubs of dynamism, change and opportunity) as well as peril (as centers of exploitation, disease and unemployment) efforts to squarely meet the challenges and maximize the opportunities afforded by urbanization is essential. It is critical that such efforts adopt a holistic view of achieving sustainable development'.<sup>2</sup> It is believed that with the rapid expansion of the cities the assurance of sustainability of mankind is at stake and the immediate response from the local government is to initiate 'best practices' to ensure environmental sustainability. These 'best practices' rest on the successful combination of the 'governance' and 'decentralization' and ensure 'soft governance' (co-operative forms of local government activity) as reflected through the Habitat Agenda also known as the Local Agenda 21. The United Nations through the LA 21 propels 'new ways of working' at the level of local government that combines process of citizen's participation and civic engagement as key elements of 'soft governance'.

LA 21 born in the womb of the Earth Summit embodies the principle of 'think globally, act locally' which means that the roots of environmental sustainability should mingle the actions of local community and the local government in the realm of pollution, resource and energy waste, environmental degradation and the destruction of the global commons provoking the local authority to enter into a dialogue with its citizens, local organizations and private enterprise through consultation and consensus building to wield best strategies. This shall develop 'civicness' among the community in the sustainability initiatives and ensure collective responsibility over environmental issues among the stakeholders. This approach known as the 'new localism' rests on the 'new sustainability agenda' which identifies good governance at the local level as a necessary precondition thereby upholding the lofty ideals of inclusive and participatory democracy. The Millennium Development Declaration and the Millennium Development Goals also capture the essence of 'environmental sustainability'.

UN- Habitat Agenda draws attention to the notion of 'livability'.<sup>3</sup> Livability demands political choice and deliberate policy design to determine goods in the public domain and the adequate distribution of national public goods. To achieve this end the Habitat Global campaign on Urban Governance was floated which signals new and strategic approach of promoting accountable and transparent urban governance which shall respond to all sectors of the society and eradicate all forms of exclusion. Livability was merged with the expectations of 'quality of life'.<sup>4</sup> The UN Habitat thereby merged the demand for environmental sustainability with the norms of good governance. "UN-HABITAT promotes good urban governance as been inextricably linked to the welfare of the citizenry. Based on the principles of urban citizenship it should affirm that no man, woman or child can be denied access to the necessities of urban life, including adequate shelter, security of tenure, safe sanitation, a clean environment and mobility." Subsequently sustainable development seems to have gained a ubiquitous presence in policy debates but the concept suffers from a certain degree of ambiguity. It restricts its acceptability from many different local and global perspectives, from many cultures and regions. Sustainable development's lack of conceptual clarity creates diverse, and sometimes conflicting, interpretations of how the notion should be put into practice and who should materialize it. However there is no denying the fact that "whilst national and supra- national governments clearly have a role in the pursuit of sustainable development, it is equally clear that local governments plays a crucial part. Local authorities are agents for implementing national and international policy: they can act as initiators of new ideas and approaches (from within the institution) but they also have the capacity to facilitate and support local community action and initiatives for environmental sustainability."<sup>5</sup>

United Nations has identified three interlinked aspects of good governance vis-à-vis urban environmental sustainability- (a) integration and intersectorality meaning integration of decision- making over environmental, economic and social values and policy co-ordination between crucial sectors of resources: (b) partnership and participation meaning partnerships between public

authorities, international agencies, business groups and civil society and participation of the stakeholders in sustainable development: and (c) accountability and transparency meaning accountability of local authorities to the citizens and access to information pertaining to decisions and actions. The notion of sustainable development has been endowed with legal niceties by the International Legal Association. ILA identifies the principles of good

governance as essential to the progressive development and codification of international law relating to sustainable development. It commits states and international organizations:

- (a) to adopt democratic and transparent decision-making procedures and financial accountability; (b) to take effective measures to combat official or other corruption;
- (c) to respect the principle of due process in their procedures and to observe the rule of law and human rights; and
- (d) to implement a public procurement approach according to the WTO Code on Public Procurement.<sup>6</sup>

Apart from the ILA the European Commission has also endeavored to legalize the notion of sustainable development. In a report published by the EC the general principles of the Law of Sustainable Development<sup>7</sup> have been framed in as

1. Principle of public environmental order
2. Principle of sustainability
3. Principle of carrying capacity
4. Principle of obligatory restoration of disturbed ecosystem
5. Principle of biodiversity
6. Principle of natural heritage
7. Principle of the restrained development of fragile ecosystem
8. Principle of spatial planning
9. Principle of cultural heritage
10. Principle of sustainable urban environment
11. Principle of aesthetic value of nature
12. Principle of environmental awareness

These principles legally ensure the phenomena of urban environmental sustainability and implicitly uphold the lofty ideals of good urban governance. 'The Global Campaign on Good Urban Governance'(2000) emphasizes the act of state- citizen relationship as an essential pre-requisite to the achievement of sustainable human development and sustainable human settlements for efficient governance of towns , cities and metropolitan areas. It is the strategic point for the achievement of sustainable urban development particularly for the informal settlements –the slums prevailing under precarious environmental conditions and they can be achieved only through 'representation' and 'participation'. Habitat Agenda identifies the sources of good environmental governance as-

Decentralization of responsibilities and resources to local authorities ensuring their accountability

Participation of civil society in identifying local priorities

Partnership between state and non-state actors to achieve common goals

Capacity building in urban development and decision- making

The Local Agenda 21 under the heading 'Basis for Action' justifies the importance of the role of local authorities in the process of sustainable development and good urban governance. Under paragraph 28.1 it claims that " Because so many of the problems and solutions being addressed by Agenda 21 have their roots in local activities, the participation and co-operation of local authorities will be a determining factor in fulfilling its objectives. Local authorities construct, operate and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations, and assist in implementing national and sub-national environmental policies. As the level of governance closest to the people, they play a vital role in educating, mobilizing and responding to the public to promote sustainable development."<sup>8</sup> The process for achieving the postulates of local sustainable development has been discussed in paragraph

3 which iterates that "each local authority should enter into a dialogue with its citizens" to "acquire the information needed for formulating the best strategies."<sup>9</sup> This has a two pronged impact. At one level 'consultation' generates awareness among the households about the sustainable development issues and in the next level it wins support from the local community which enhances the chances of success of the policies adopted. Different countries have come up with different approaches in their experimentation with LA 21.

Brazil has achieved a holistic vision in ensuring community participation by initiating Participatory Budgeting (PB). Porto Alegre is the pioneering city in Southern Brazil and an international reference point in PB. Other cities experimenting with PB are Recife, Belern, Santro Andre, Campinas, Alvorada, Buenos Aires, Ilo, Puerto Asis etc spread across North and South America. PB has emerged as a source of communication channel between inhabitants and the municipality, pointing to the generation of 'lien social' as they call or 'social bond'. In many cases the PB is linked to the municipality's finance department.<sup>10</sup> While PB generally encompass 2-10per cent<sup>11</sup>of the

overall implemented budget but in ‘advanced’ form of PB whole budget is accessible for discussion. It ensures social control of the municipal public resources. Such experiments with inclusive models of environmental sustainability may effectively cut across religious or cultural dimensions. The process allows the population to become aware of the municipal resources, their limits and origins as well as the budgetary restrictions<sup>12</sup>. PB is a classic instance of direct participation<sup>13</sup> at the community level leading to successive social mingling.

UK has adopted the ‘Best Value’ practice as a step forward to good governance. Best Value practices demands the local authorities to deliver services in the ‘most effective, economic and efficient means available’ ensuring cost-effectivity.<sup>14</sup> UK Government through Best Value framework has sought to materialize integrated working of the local communities. Under Best Value practices the local authority publishes an annual Best Value Performance Plan –a public

document of the authority’s past and present performances indicating the targets set and the targets achieved finally. To ensure quality service and a quality life the local authorities identify certain Community Strategies. Such Community Strategies focus on the articulation of the aspirations, needs and priorities of the local communities and accordingly shape their existing and future activity to achieve sustainable development.<sup>15</sup>

Local Agenda 21 resonates ‘soft governance’- a process of securing ‘more co-operative forms of local government activity, which is inclusive, participatory and democratic’<sup>16</sup>. ‘Soft governance’ encompasses ‘new ways of working’ at the level of local government. The benchmarks achieved by Brazil through Participatory Budgeting or UK through Best Value practices accrues to the belief that the notion of soft governance popularized by LA 21 has gained much ground in the European and Latin American countries. Even in some of the Arabian State of Morocco and African states like Burkina Faso and Kenya have witnessed a sea change since their experimentation with the realization of the LA 21. South Korea has emerged with the idea of ‘collaborative government’<sup>17</sup> to achieve goals of sustainable development.

We shall now look into how the Government of India has been coping with the challenges of urban metabolism<sup>18</sup> and ecological footprint<sup>19</sup> to ensure the safety of environment and sustainable development. As a matter of fact the structures of urban government were installed through the 74<sup>th</sup> Amendment Act of the Constitution of India to adequately address the population demands for a backlog of services that have not been met by the Central government.

This act has become a valuable tool to address the problems of environmental sustainability as it ensures the opportunity of decentralization of power and decision-making. The moot point has become the need to ensure three basic conditions- quality of life, advance services and urban growth without hampering the continuity of economic and social activity across the regional, cultural and religious lines. Ideally the 74<sup>th</sup> Constitutional Amendment act is a milestone in this respect .It upholds clearly defined political, institutional and economic objectives. Among these are worth mentioning the idea of transfer of power to the people for civic services, increased autonomy and accountability in municipal affairs and ensuring efficiency in production and delivery local public goods and services.<sup>20</sup>But its realization in ensuring ‘best practice’ to cultivate state-citizen relationship vis- a-vis protecting urban environment has been conspicuous by its absence. The formula driven grants practiced by the state government or by the Central government to guarantee efficiency of the ULBs has become a cause of serious concern as it is demeaning the spirit of autonomy to be enjoyed by the ULBs.

In the Directive Principles of the State Policy Article 48 A was incorporated as 42<sup>nd</sup> Amendment which holds that “the state shall endeavor to protect and improve the environment and to safeguard the forests and wild life of the country.”<sup>21</sup>A new chapter on fundamental duties was added in Article 51-A which provided that it shall be the duty of every citizen of India to protect and improve the natural environment including forest, lakes, rivers and wild life and to have compassion for the living creatures. The Ministry of Environment and Forests was started in January 1985 and the Department of Environment was started in November 1981. Various urban environmental issues

were identified with the establishment of the Ministry of Urban Development in May 1952.<sup>22</sup>These issues can be read as follows:

- Land management
- Housing
- Water supply
- Sanitation
- Drainage
- Solid and hazardous waste management
- Transport and air pollution
- Greenhouse gas emission
- Accident risk

## Disaster management

The website brings a vivid detail of the future action plans of the Ministry and under the title of Urban Environmental Management, Community Health and Public Safety the Local Agenda for the urban environmental management has been clearly iterated. It reflects the stand of Government of India in relation to sustainable development and environmental sustainability. "...the environmental question has become urgent and has to be properly understood and squarely met, there is need for a proper understanding of the contexts in terms of the evolution of the constitutional reforms on environment in India, the local authorities' initiative in support of Agenda 21 of the Rio World Conference on Environment and Development, and the national strategy for wider application thereof in the light of the Central Acts on the environmental aspects. It is also necessary to appreciate the overlapping jurisdictions and functions as covered in the environment laws, the planning laws and the municipal laws."<sup>23</sup>The Ministry also reflects on the objectives of the environment management and the possible action plans.

The objectives for environment management at the local level have been identified as following: (a) Preparation of environmental management strategy and action plan,

- (b) Carrying out of studies on vulnerability and risk assessment,
- (c) Establishing adequate institutional and regulatory framework to plan and implement the environmental management plan,
- (d) Enhancing the capability of the concerned agencies for better management of the environment, (e) Research and training activities to better equip the municipal personnel for realization of the above mentioned objectives.

The possible components of an action plan have been included as following: (a)

Environmentally sound solid waste management system,

- (b) Toxic waste collection and disposal, (c) Waste recycling and recovery,
- (d) Low cost sanitation, (e) Wise use of wetlands,
- (f) Cattle shed removal from prime urban areas, (g) Slum improvement,
- (h) Possible slum resettlement,
- (i) Urban heritage conservation,
- (j) Urban forestry, landscaping of river banks, parks and open spaces, (k) Urban agriculture, and
- (l) Promotion of community awareness and education.

Apart from this the 74<sup>th</sup> Constitutional Amendment Act in Chapter XXIX, clause 277, defines the duties of a Municipality in relation to the local agenda for urban environmental management by involving professional agencies and community based organizations whereas clause 278 deals with the functions in relation to urban environmental management by the Municipalities themselves or through other institutional arrangements, and for submission of a report on the environmental status of the municipal area.

Over the years the Parliament has enacted some major environmental Laws like

The Water (Prevention and Control of Pollution) Act, 1974

The Water(Prevention and Control of Pollution) Cess Act, 1977, later amended in 1991

The Air( Prevention and Control of Pollution) Act, 1981, amended in 1987

The Environment (Protection )Act, 1986

The National Environmental Tribunal Act, 1995

The national Environmental Appellate Authority act, 1997

These laws came up as a response to the United Nations Conference on Environment and Development held at Rio de Janeiro in June, 1992 and the United Nations Conference on the Human Environment held at Stockholm in June, 1972 whereby India pioneered in implementing national laws to restrict environmental degradation. In 2008 India and South East Asian Countries jointly published the Delhi Declaration on 'The Impact of Climate Change on Health'.<sup>24</sup>Prior to this in 2002 Delhi and ILA took joint initiative to frame the legal parameters of sustainable development and good urban governance. Accordingly ILA has laid down the following principles ensuring environmental sustainability.

The duty of States to ensure sustainable use of natural resources;

The principle of equity and the eradication of poverty;

The principle of the precautionary approach to human health, natural resources and ecosystems;

The principle of public participation and access to information and justice;

The principle of good governance;

The principle of common but differentiated obligations;

The principle of integration and interrelationship, in particular in relation to human rights and social, economic and environmental objectives<sup>25</sup>

India has carried well with the expectations of the Habitat II and has received Dubai International Award for Best Practices in 1998, 13 New Best Practices and 7 good practices in 1996 in the Habitat Best Practices initiatives. These include urban experience in environment and public health in Surat, energy management initiatives in Ahmadabad, innovative urban partnerships, in Ahmadabad, Community participation for clean surroundings by EXONORA in Chennai, Cost effective environment friendly shelter development strategy and environmentally sound and productive use of city garbage in Bangalore and poverty alleviation through community participation in Kolkata.<sup>26</sup>The Clean and Green Program of Hyderabad city also received wide acclamation as a classic example of multisectoral and participatory program for environment protection.<sup>27</sup>

The response of the Indian state towards mitigating environmental sustainability proves that urbanization has emerged as a powerful force in India and it is worth mentioning that 11 cities have been identified in India which will in future emerge as megacities with abnormal explosion in population. Kolkata and Mumbai are two among them. This indicates that in near future Kolkata is going to experience huge rate of urban metabolism and Ecological footing which Mohit Bhattacharya describes as “carrying capacity”.<sup>28</sup>In Kolkata under the aegis of the state government the World bank assisted Calcutta Urban Development Program (CUDP III) was initiated way back in 1983. Side by side the state government initiated an array of legislation and institutional reforms like

Enactment of the Kolkata Municipal Corporation Act replacing the Calcutta Municipal Act of 1951 to provide for a cabinet form of government.

Replacing the Bengal Municipal Act by the West Bengal Municipal Act 1993.

Establishment of the Directorate of Local Bodies(DLB) and the Municipal Engineering Directorate(MED) at the state level and the Municipal Development Program Directorate to extend necessary assistance to the ULBs.

Establishment of the Municipal Finance Commission

Along with the CUDP III other major projects which are being run by the ULBs are Kolkata Slum Improvement Project (KSIP) assisted by the DFID and the India Population Project (IPP)- VIII assisted by the World Bank. Kolkata Environment improvement program has been taken up by the Kolkata Municipal Corporation in assistance with the World Bank. A glimpse over the West Bengal Municipal Act, 1993 would exhibit the reality that the whole affair of the municipal government has been kept under the purview of the state government. Consequently the state government has exercised complete sway over the ULBs thereby adding political colour to their actions solely determined by the state government initiatives. This has hauled the participatory face of the ULBs and they were reduced to mere representative bodies engrossed in political perversion. Most of the participatory faces of the municipal authorities have been reduces to sheer misnomer.

The Kolkata Municipal Corporation has no doubt left considerable mark on the progress chart. In 1959 the WHO team visited Kolkata to review the public health, water supply, sewerage and drainage problem in Kolkata and the adjoining areas. The team placed a vivid picture of the real situation stating that sanitary situation was below the minimum level of standard, the provision for the safe and drinking water was inadequate; a meager population of the slum area experienced the daily removal of the human waste<sup>29</sup>. However the situation has achieved a considerable degree of satisfaction over the next four and half decades under the KEIP and KUSP. But that subsequent progress has been stalled is due to the fact that stake-holders participation has been inhibited. The whole spirit moves away from the standards determined by the LA 21 and Habitat II. In a conference on Urban Management: Local Government and Community Action organized by the Institute of Social Sciences a statesman representing the West Bengal Government expressed genuine concern about the complexities of coordinating local governments with the community groups and his choice of such co-ordination in the case of solid waste management remained confined only to the role of the households in helping the KMC workers to collect the solid waste from the premise. This notions stand out to the instances of community participation exhibited through the actions of EXONRA. Nevertheless such community participation is gradually making themselves visible in the transport sector where the young NCC Cadets and other youth dressed in the KMC logo are managing the day to day traffic under the supervision and guidance of Kolkata Police. They are paid in a contract basis to monitor the traffic at the crucial junctions.<sup>30</sup> They are being produced in disaster management.

It has been claimed often that the ULBs are also sources of environmental pollution as their inefficiency in achieving the Master Plans cause much damage to the society at large. Hence a proper environment management system should be adopted to correct the vitiating impact of the ULBs. Effective management of the environment at the local and the regional levels should follow well charted management methods like environment monitoring, environmental audit, environmental impact assessment and environmental management system. It has been further flaunted that the municipal corporations should strive to acquire an international EMS standard like ISO 14001 which demands the existence of a precise environmental policy, an assessment of environmental aspects and legal obligations, public internal audits which can result in improved environmental performances.<sup>31</sup> However the idea should be how to incorporate popular participation for the attainment of quality of life and best practices for rendering better services to the stakeholders. The idea can be three pronged- first, a powerful state government and a subservient municipal authority, second, a powerful municipal government and a limited state authority and the third, a soft governance or collaborative government incorporating citizens in the decision making process to avoid conflictual situations and ensure good governance reaping cumulative wholesome benefit. For example the idea of participatory democracy in urban governance through the management of ward committee meant to realize people's initiative in local actions has been largely undermined by the Kolkata Municipal Corporation. The concept of community participation through the ward committee has been reduced to mere irregular practice. In most localities people are not even aware of the existence of ward committees which can in reality do a wonder in ensuring environmental sustainability if given equipped nourishment.

Public participation is essential to sustainable development and good governance in that it is a condition for responsive, transparent and accountable governments as well a condition for the active engagement of equally responsive, transparent and accountable civil society organizations, including industrial concerns and trade unions. The vital role of women in sustainable development should be recognized. Public participation in the context of sustainable development requires effective protection of the human right to hold and express opinions and to seek, receive and impart ideas. It also requires a right of access to appropriate, comprehensible and timely information held by governments and industrial concerns on economic and social policies regarding the sustainable use of natural resources and the protection of the environment, without imposing undue financial burdens upon the applicants and with due consideration for privacy and adequate protection of business confidentiality. The empowerment of peoples in the context of sustainable development requires access to effective judicial or administrative procedures in the State where the measure has been taken to challenge such measure and to claim compensation. States should ensure that where trans-boundary harm has been, or is likely to be, caused, individuals and peoples affected have non-discriminatory access to the same judicial and administrative procedures as would individuals and peoples of the State in which the harm is caused.

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#### (Footnotes)

<sup>1</sup> Sources: Urban Agglomerations 2003 UNDESA, Population Division 2004 (ST/ESA/SER.A/232) World Urbanization Prospects: The 2003 Revision, UNDESA, Population Division 2004 (and Press release). ([www.unhabitat.org/mediacentre/backgrounders.asp](http://www.unhabitat.org/mediacentre/backgrounders.asp).)

<sup>2</sup> Source: Urban Environmental Governance: For Sustainable Development in Asia and the Pacific: A Regional Overview. United Nations Publication, United Nations, 2005.

<sup>3</sup> Livability refers to those spatial, social and environmental characteristics and qualities that uniquely contribute to people's sense of personal and collective well being and to their sense of satisfaction in being the residents of a particular settlement. Official submission of Dr. Anna Tibaijuka, Executive Director of UN- HABITAT, under Secretary General of the United Nations for inclusion in the summary of the Environmental Roundtable on ensuring sustainability and access: the case of water and sanitation, Helsinki Conference, 9<sup>th</sup> September, 2005. Prepared by David C. Tipping ([www.sndp.undp.org/gpgn/pdfs/helsinki\\_conference.pdf](http://www.sndp.undp.org/gpgn/pdfs/helsinki_conference.pdf).)

<sup>4</sup> Quality of life is defined in terms of the satisfaction of preferences relating to utility and choice and subjective well being. For details see Lim, Lan Yuan, Belinda K.P. Yuen, Christine Low, Urban Quality of Life: Critical Issues and Options, School Building and Real Estate, National University of Singapore, 1999.

<sup>5</sup> Buckingham, Susan, Local Environmental Sustainability, Woodhead Publishing Ltd, 2003.

<sup>6</sup> Source: ILA New Delhi Declaration of Principles of International Law Relating to Sustainable Development, 2 April 2002. The 70th Conference of the International Law Association, held in New Delhi, India, 2-6 April 2002, <http://www.springerlink.com/content/v52m758047k73q41/>

<sup>7</sup> Source: The Law of Sustainable Development: General Principles. A report produced by the European Commission by Michael Decleris (<http://www.woodlandleague.org/documents/sustainability/sustlaw.pdf>)

<sup>8</sup> Source: UNCED, 1992

<sup>9</sup> Source: UNCED, 1992

<sup>10</sup> Cabannes, Yves, *Participatory Governance Environment and Urbanization* Vol 16 No. 1 April 2004.

<sup>11</sup> *Ibid*, p.34

<sup>12</sup> *Ibid*, p.36

<sup>13</sup> *Ibid*, p.42

<sup>14</sup> Buckingham, 2003, p.7

<sup>15</sup> Ibid,p.8

<sup>16</sup> Ibid, p.75

<sup>17</sup> South Korea defines collaborative government as “a new form of governance which involves all distinct stakeholders in a working relationship with each other through regular dialogue and interaction in pursuit of a common goal. Among various governance fields, collaborative governance is a representative concept for understanding modern governance related to urban planning, because it is evident that most contemporary issues are highly complicated, so they cannot be solved by a single actor alone.” in Kim, Taeyung , *Collaborative governance for sustainable development in urban planning in South Korea*, Centre for Urban and Regional Studies, Birmingham Business School, University of Birmingham (<http://www.universitas21.com/GRC/GRC2009/Kim.pdf> accessed on 24.12.2010)

<sup>18</sup> Urban metabolism is defined as the sum total of the technical and socio-economic processes that occur in cities, resulting in growth, production of energy and elimination of waste. It provide suitable measures of the magnitude of resource exploitation and waste generation and provides for policy makers to understand the metabolism of cities .For details see *The Encyclopedia of Earth*. [www.coearth.org/article/urban\\_metabolism](http://www.coearth.org/article/urban_metabolism).

<sup>19</sup> The concept was developed in 1992 by Dr. William Rees and M. Wackerangel of the University of British Columbia. It refers to the area of land needed to provide the resources used and absorb the wastes produces by a community.

<sup>20</sup> For details see Majumdar, Paramita, *Decentralization: Challenges to Urban Local Governments*, Nagarlok Vol XXXVIII, No. 3 July-September, 2006, p.2

<sup>21</sup> Sharma, Anjali Krishnan, *Sustainability in Developing and Developed Nations- Focus in India*, Nagarlok Vol XXXVIII, No. 3 July-September, 2006, p.41

<sup>22</sup> Source: Website of Ministry of Urban Development, Government of India.  
[http://www.urbandevelopment.gov.in/theministry/ministry\\_page.htm](http://www.urbandevelopment.gov.in/theministry/ministry_page.htm)

<sup>23</sup> Source Website of Ministry of Urban Development, GoI

<sup>24</sup> Source: [http://www.searo.who.int/LinkFiles/SDE\\_NDDS.pdf](http://www.searo.who.int/LinkFiles/SDE_NDDS.pdf) accessed on 24.12.2010.

<sup>25</sup> Source:[http://www.worldfuturecouncil.org/fileadmin/user\\_upload/papers/Article\\_on\\_Sustainable\\_Development\\_Law\\_Principles.pdf](http://www.worldfuturecouncil.org/fileadmin/user_upload/papers/Article_on_Sustainable_Development_Law_Principles.pdf) accessed on 25.12.2010.

<sup>26</sup> Sharma, Anjali Krishnan, *Sustainability in Developing and Developed Nations- Focus in India*, Nagarlok Vol XXXVIII, No. 3 July-September, 2006, p.42

<sup>27</sup> Ghosh, Archana, *Urban Environment Management: Local Government and Community Action* in Archana Ghosh(ed) *Urban Environment Management: Local Government and Community Action*, Concept Publishing Company, New Delhi, 2003 published for Institute of Social Science and Friedrich Ebert Stiftung.

<sup>28</sup> Bhattacharya, Mohit, *Urban Environment Management: A Local Governance Perspective* in Archana Ghosh(ed) *Urban Environment Management: Local Government and Community Action*, Concept Publishing Company, New Delhi, 2003 published for Institute of Social Science and Friedrich Ebert Stiftung.

<sup>29</sup> Bardhan Roy, Maitreyee, *Calcutta Slums: Public Policy in Retrospect*, Minerva Associates (Publications) Pvt Ltd.,1994

<sup>30</sup> Dasgupta, Asim, *Urban Environmental Management: Some Observations*, in Archana Ghosh(ed) *Urban Environment Management: Local Government and Community Action*, Concept Publishing Company, New Delhi ,2003 published for Institute of Social Science and Friedrich Ebert Stiftung.

<sup>31</sup> Kumar, Loveleen, *Applicability of Environmental Management System on a Municipal Corporation to Improve Urban Environment*, Nagarlok Vol. XXXV, No. 4, October- December, 2003.