

URBAN AREAS AND SUSTAINABLE DEVELOPMENT

Cemal ÖZTAŞ*, Eyup ZENGİN* & Rövşen İBRAHİMOV*

Abstract

Sustainable development is a term that was first used before the public in a document "Our Common Future" prepared by a commission of The United Nations Environmental Programme. It envisages the aims and methods of development and industrialization being in harmony with the physical facilities of the Earth. Thus, preventing excessive extravagancy, it aims at a steady developmental process for the people of the world, and securing resources that will allow development in the world of the future generations. There are different definitions for "sustainable development". In terms of economic means, it can be defined as "the best management of scarce resources". It can also be interpreted as "maximizing the net benefits of our economic development". Another definition might be "using our resources without reducing the income of the future generations". Rapid increase in population and urbanization in this century has led to some imbalances in the ecosystem, which is composed of a system based on the interconnection between the human and nature. Rapid growth of urbanization and thus the negative developments taking place in the structure of urban population is one of the major causes of air pollution. The city has the nature of influencing the environment directly and negatively as a result of the increasing urban population. Especially, the urban population settlement on agricultural lands and the destruction of urban and fertile areas in terms of natural resources and so forth have led to the negative environmental developments.

Keywords: *Sustainable development, urbanization, Our Common Future, Rapid increase in population*

Urbanization

Urbanization which can be defined as the increase in city number and the people who live in, appears as the reason of environmental problems. Cities which gained speed with industrial revolution and previously in industrial countries and has later quickly developed in whole world, seem problematic areas as city.²⁷⁷ As city

* Dr., TGNA Senior advisor, coztas@hotmail.com

* Dr., Istanbul University, Eurasia Institute, Lecturer, ezengin@yahoo.com

* Dr., Azerbaijan Qafqaz University, Lecturer, rovshanibrahimov@gmail.com

277 Kemal Görmez, "Environmental Problems and Turkey," Broadened 2. Edition, Gazi Bureau Publishing House, Ankara-1997.

develops in demographic, physical and economical perspectives affects all environmental conditions.²⁷⁸

Rapid population growth and urbanization in which century we live, led some imbalances to appear in the system where human and nature relates namely in ecosystem. Production and distribution of nourishment ingredients which increasing urban population requires, rapid growth of transportation vehicles, negative effects on natural environment of industrialization and technological developments caused to gain current significance to various problems which summed under 'environmental problems'.²⁷⁹

As people living in cities increase and this increase especially in big cities transformed into population pile, urban problems not only harms to environment but also lead to social and political depressions. To solve urban population's accommodation, working, consumption problems meeting needs as health, education, culture, transportation, water, energy causes problem, since lack of sources problems couldn't be overcome. Cities has become low life quality places and extremely loaded to environment because of unsystematic settlement.²⁸⁰

Rapid urbanization and depending to it some negative developments where occur in the urban settlement, is one of the most significant reasons of air pollution. Among the factors which can be arranged under this group, the increase of urban population, gaining unsuitable character to topographic and meteorologic conditions of urban area usage has great importance.

As a result of these two sub-elements "being active; lack of green areas, heating systems" not being developed according to developing conditions, increase in transportation vehicles especially in number of motorized vehicle and insufficiencies in waste refining are the truly

leading elements to air pollution.²⁸¹ Right along with urbanization's having a few functions which naturally simplify human life there are also various problems which living together brings. These are with their general headlines: unsystematic construction and squattership, lack of infrastructure, noise, air pollution, traffic, solid wastes, supplying healthy drinking water, sewer system, transportation and etc. along with eminent problems some spiritual problems appear such as unjust income distribution, appearing of ordinariness in human life and etc.²⁸²

Along with negative effects of globalization on environment, the documents and arrangements which were prepared by international organizations as a result of

278 Eyüp G. İsbir, "Urbanization and it's Problems," Developed 2. Edition, Ankara-1991.

279 Ruşen Keleş, "Urbanization Policy," İmge Bookhouse Press, 3. Edition, Ankara, 1996.

280 Ruşen Keleş, Can Hamamcı, "Ecology," İmge Bookhouse Press, Ankara-1997.

281 Kmal Görmez, "Çevre Sorunları ve Türkiye," Genişletilmiş 2. Baskı, Gazi Büro Yayınevi, Ankara-1997, s.18

282 İsmail Gökdayı, "The Future of Environment: Approaches and Policies," Foundation of Environment in Turkey Press, Ankara-1997.

globalization has got features that will minimize the damage which globalization give. In this context, ex-Rio and post-Rio documents are important in globalization and sustainable development points.²⁸³

Although, urbanization and environmental problems started in 19th century and became common in the in 20th century, will probably make the most important problem which 21th century societies will have to solve. In other words, post-modern world will have to solve which modern world has produced. In this process ,environmentalist movements' attitude and behaviours take up an important place on economy, technology and social values.²⁸⁴

Sustainable Development

Sustainable development or continual and balanced development concept appeared as a new expression of the balance which was wanted to be established among economy, society and environment since 1970 years. It seemed that the idiom first used in reports which called 'world protection strategy' which was prepared by Association of Nature and Natural Resources Protection (IUNAC). Concept was started using commonly in the whole world when a report called 'our common future' was published in 1987 which was prepared by United Nations Environment and Development Commission.²⁸⁵

Sustainable development appear as one of the most favorite concepts of environment discussion. Actually is seen no idea has occurred about how the concept should be defined. Different people make different definitions suitable to points which they would like to defend. When looked to mainlines if current 'economic growth' tempo will cause to decrease in prosperity level which measured as consumption potential for each person both in marketed goods and environment goods isn't accepted as sustainable. When concept is looked from environment perspective, required conditions for sustainable development are 'continuity of natural capital stock' if said more openly, is brought up as 'natural resources are because of non-negative changes in their stocks' like the recipient environments' left over accepting capacity, forests, water biological mass, land biological mass, land onground, underground waters and the quality of them, owed land and quality of it.²⁸⁶

283 Uğur Yıldırım, Şerif Öner, "Reflection Sustainable Development Approaches to Turkey : Sustainable Development in GAP and Local Agenda 21," Modern local Administrations, Volume 12, Number 4, October 2003, p. 6-27

284 İsmail Ceritli, "Politicalization Process of Environmental Movement," C.U. Social Sciences Journal, Volume 25, Number: 2, 2001.

285 Ruşen Keleş, Can Hamamcı, Mentioned work., p. 138

286 Çelik Arıoba, "Environmental Economy, Development Economy," Human- Environment –Society within (Prepared to Publication by Ruşen Keleş) İmge Bookhouse Press, 2. Edition, Ankara-1997.

One of the well-known definitions of sustainable development is stated in 'Our Common Future' report: development which meets today's needs by not making concession from talent of meeting needs of generations in the future. Under this definition, lies the justice idea in the point of uses and social, economic and environmental costs. But, although definitions which brought recently to sustainable development had an human centered element actually makes the environment to be considered.²⁸⁷

This approach, envisages reviewing with a bilateral ethical supposition of relations among society, environment and economy. To realize a synchronic cooperation with our moderns with future generations time dependant cooperation. It should be made clear that, in this context, the aim of sustainable development is to determine development strategy. The question which should be asked on economy is how to realize development by not taking possibilities of future generations to meet their needs.²⁸⁸

When we come to sustainable urban concept here along with making up cities which reply better than today's cities for human needs, it defines that urban system should be developed in a manner which will not obstruct future generations' needs. Conceptualizing the idea of sustainable cities in this manner, suits to conceptual content of sustainable development strategy. In this context, the content aims of sustainable cities thought can be inferred from general information on sustainable development.²⁸⁹

Sustainability has also got a social side. To protect people's variety, we need to let them realize their personality especially by health and education. Even, it is possible to say that investment done to people's health and education is an important factor especially in global rivalry era. To sustain this kind of investment, it is required to continue the investment for education, health and other social services. Sustainability at the same time is the supporting capacity of human beings' each other, means overcoming loneliness senses which will lead human potential's getting smaller and be lost.²⁹⁰

To apply sustainable development model, it is open that there are imbalances among countries in important level on resource, energy and sanction. This dimension of the subject was dealt with in Johannesburg summit, in a manner which takes this general inference into consideration. In the summit, discrepancies between developed and developing countries continuously and dynamically, the necessity of international cooperation, international neighbourhood was emphasized. As for, in

287 Teslim Şekur, "Sustainable Development and Cities of Developing Countries," Habitat II City Summit, İstanbul 96, International Scientific Meetings, June 3-12 1996, İstanbul Municipality Department of Cultural and Social Affairs, Volume 2, İstanbul-1997.

288 Ruşen Keleş, Can Hamamcı, Mentioned work., p. 138

289 Hasan Ertürk, "Sustainable Cities," New Turkey Journal, Habitat II Private Number, 96/8.

290 Population and Life Quality Independent Commission, "Care to Future," Foundation of Environment in Turkey Press, Ankara-1997.

this frame, the significance of cooperation in both developed and developing countries on especially finance, technology transfer, foreign loans, trade etc. is emphasized from sustainable development continuity view.²⁹¹

Sustainable development, since the concept has appeared is defined as the development style which doesn't undervalue the talents of future generation to serve own needs. This definition also appears, as the most important concept on development, needs and future generations. Here, growth expresses the greatness of economic system and physical spread. As for development makes clear a qualified concept, like development which has social, economic, cultural dimensions. Sustainable development, expresses to be respectful to nature's capacity of protection of productivity. So in providing sustainability of urban life and natural sources carrying capacity is one of the significant concepts.²⁹²

Sustainable Development and Problems in Modern Cities

One of the qualities, which define twentieth century is 'urban revolution' fact. Today, almost half of the world population live in cities while it is estimated that in the first quarter of twenty first century two third of world population will be living in cities. Urbanization, carries an unavoidable process quality for all societies which aim development. Because urbanization is an unseparated part of development, it carries an accelerating element quality. As being focal points of development, population, production and consumption pressures on cities, make these areas where environmental problems focus on. Especially, in cities where socioeconomic decisions aren't taken according to ecological problems, both the life quality of today's generation decreases and the possibilities to leave future generations 'liveable' city are restricted. In this context to gain cities 'sustainable cities' quality makes up an important space. In other words, the solution of urban problems to reach aim and targets of sustainable development in a country take up an important space.²⁹³

In sustainable cities, population growth level and the quality of human resources take up an important space. That's why, in cities both population growth is controlled and qualified development should be provided by improvements in education, health services, nutrition, accommodation. In this context, population problem in cities included the aim of people's using their own resources justly. In this point, right along with solving unemployment problem in cities employment problems gain significance, work guarantee should be provided. Negativity will be removed on land resources in these cities, nutrition security of people should be

291 Uğur Yıldırım, Şerif Öner, Mentioned article., p. 6-27

292 İŞGED, "İstanbul Bağcılar District Urbanization Dynamics," Research Report, (Prep. Aykut Karaman, Dilek Erden Erbey, Ebru Firdin Özgür) May 2007, İstanbul.

293 Kemal Görmez, "Çevre Sorunları ve Türkiye," Genişletilmiş 2. Baskı, Gazi Büro Yayınevi, Ankara-1997, s.18

provided. Out of this, ecological planning which perceives cities as an ecosystem should be dealt with in each process of city planning.²⁹⁴

To meet human needs and sustain economic growth energy makes up an fundamental input. But energy with it's today's usage makes up an important obstacle to realize sustainable cities thought. Energy which is based on unrenovable and dirtying creates an intense dirtying and spoiling pressure on urban ecosystems. That's why basic transformations are required in getting and using energy. Both energy saving applications should be inclined and action plans are required which develops renewable and clean energy technologies.

Actually, sustainable development concept is a newly developing concept and its theoretic basis isn't clearly determined yet. The efforts to determine these basis, is often mentioned with environment concept. Discussions about environment, can economic growth can be provided with a clean environment or environment's being damaged is unavoidable? is focused around the question. In the short term, it is a fact that countries which postpone the environmental concerns has developed quicker. As for in the long and middle term, it doesn't seem possible. Even in developed countries damaged environment slows down economic growth. In this point sustainable development be the most urgent thing and is a precaution which is put forward to provided development congenial with environment.²⁹⁵

Waste Problem in Sustainable Cities

For sustainable cities, consumption society understanding should be quitted which is a life style beyond ecological possibilities of city ecosystems. In this context, technologies and arrangements are required in cities which will increase productivity in resource use, decrease wastes, encourage reuse and evaluation. As a first rule of waste management, 'obstructing waste production' means, at the same time resources' protection. This management, is an important part of sustainable development, which is thought to be realized with combination of environmental, economic and social aims. The most important topic which sustainable waste management should succeed, is to provide passing circular use by quitting 'one-sided linear' use of resources with social sectors. As for this: depends on minimizing and obstructing of wastes where they are lost in burning facilities, storing areas; reaching the highest level in recycling ratios and changing with possible ones to reuse instead of materials whose reuse is impossible. Passing circular process from linear process in production, resource use, requires sustainable management of wastes. Alternative usages of recycled materials and reuse gains importance here. The aim, is using each waste in a useful purpose.

294 Hasan Ertürk, Mentioned article., p. 177

295 Muharrem Es, "Technology, Development ve Environment," Social Policy Conferances, 41-42. Book, p.289-301, İstanbul-1998

Concluding circular movement with final consumption, is a process for continuation of sustainability in application. Also, in this process reusing of wastes and recycling is required. The policy, strategy and programs to be developed in gathering, processing and assessing of wastes are shortly 'sustainable waste management system' is a requirement in sensitive management of wastes.²⁹⁶

In sustainable cities, environmental values such as air, water are seen as 'free goods' in industrial production, obstructing applications are needed of them not to be used rudely. In the beginning of these applications, pollution taxes come as an economic tool. On the other side, industrial establishments can be directed to protective investments for environment with subventions.²⁹⁷

Sustainability and Transportation Problem

An important problem for sustainable cities is negativity that in-city transportation creates. Parallel with energy increase in in-city transportation pollution increases more, this fact has reached to point which threatens human life. That's why by making mass transportation taken pains, providing secure bike and pedestrian way the need for motorized vehicles should be decreased. Moreover, to decrease transportation demand in cities, regionalizing understanding should be changed, transformed in a manner which will fuse home and work places. So, it will be possible to make cities for people instead of just organizing for cars' movement. This situation has got much more critical significance in developing countries' city development. The problem which hasn't taken enough consideration, is mass transportation net's growing properly. This net itself creates the problem. Local administrations and most of municipalities accept that they can't meet mass transportation demand. Private buses and minibuses are real alternatives. But, fees are kept low neither public sector nor private sector can't gain required capital to fix and care their vehicles. High air and noise pollution, are responsible for standart decrease in car care. To solve this problem was experienced as failed single-double metal tag car design in Lagos and successful way fee application in Sinagapore. The best example for completed transportation management and planning is probably in Curitiba in Brazil. In the beginning of 1970s a transportation plan was accepted in Curitiba to encourage linear growth from urban centers to five structural axis direction. Within these axis, in one side there existed a central way which had an express bus lane, one sided road systems for in-out city traffic and closed roads.

Completing land use with road system makes up the heart of this plan. Before development and hardening laws are made about land use and intense lands are bought which located through structural axis. Throughout these axis, business development providing with housing was encouraged which had higher intensity. At

296. Hamit Palabıyık, "Management of Urban Solid Wastes: Perspectives on Recycling and Sustainability," Turkish Management Journal, Mart-1999, Number 422. p. 73-74

297 Hasan Ertürk, Mentioned article., p. 177

the same time, road hierarchy, structural axleness, prior roads, gathering avenues, combining avenues were launched.

In 1974, most flexible and appropriate mass transport was made in existing road net by launching express buses on roads which were special to buses of structural axis. After a while, by starting ring services among districts all common centered axis was combined each other around the city subordinate lined bus was included to directions and different bus system launched. On structural axis, middle scaled terminals was established in each 2 kilometres and big bus terminals in each final destination. In each terminal, services was established as post office, bank and shop. This innovative mass transportation programs are indispensable to solve transport problems of cities in developing countries by completing land use in Curitiba with mass transportation system.²⁹⁸

One of the fundamental conditions for sustainable cities, is realizing applications which will add public's transportation to management and strengthen local administrations. That's why, institutional and legal structures of local administrations should be made suitable to sustainability aims. On the other side, arrangements are required to be done which will inform public on actions related with their joining to management. Moreover, along with methods, which will develop public's joining to management, methods are required which will broaden application right to management and court.

Institutional and legal structures of local administrations of developing countries aren't enough for these purposes. In addition to this, it gets hard of managing urban centers' problems which grow quickly and broadly affect urbanization's direction, led energy intense and matter intense cities to appear, dependent of export, loaded to national economy and payment balance. As central governments could do little in this situation they had to do a lot and couldn't do well none. As human and fiscal resources divided to many works, on the other side local administrations couldn't gain experience and expertise, acquire the believability and authority to struggle with local problems.

To be the key institution of development city administrations should be strengthened in political, institutional and fiscal points, should reach more of capital which was created in city. Cities should adapt and reach more. It is only possible, if cities adapt with problems and use various tools to struggle with them. And these tools are, deed cadastral, land use control and sharing tax.²⁹⁹

Right along with environment factor which is the most significant factor affecting sustainable development, is getting energy security and using resource actively are also important. The effect of energy sector to climate change, is a significant factor affecting plans which is made to provide sustainable development. When comparisons are made on environment production chains of all energy types should

298 Teslim, Şekur, Mentioned article, p.100-101

299 World Environment ve Development Commission, "Our Common Future," Foundation of Environmental Problems in Tukey Press, Ankara-1987. p.303-304

be evaluated. Productive management of resources are key elements in sustainable development of energy sector.³⁰⁰

Evaluation

In the base of sustainable development, there lies protection and development of resources. Resources continually should be evaluated by protecting, especially supporting of renewable resources by not exceeding the limits comprises the core development philosophy.³⁰¹

Sustainable development. can be defined as developing and increasing of life quality harmonious and balanced with ecosystems which supports fundamentally for continuing of existence and human being is part of. Fundamental components of sustainable development; economical feasibility, social equality and environmental sustainability.³⁰²

Environment- development relation's being continually discussed topic made sustainable development concept seriously current issue. When development heavily perceived as industry, environment pollution, is almost unavoidable. Development which is done by not taking environment into consideration may be a problem after a while.³⁰³

To provide sustainability on individual and social development to be realized synchronous with environmental values there are important attempts by international community since 1972 started in Stockholm, get quicker with Rio (1992) and came up to Johannessburg (2002) and initiated by UN.³⁰⁴

In our day, which the development is first condition for all communities, development's negatively affecting resources and environment, being failed in sustaining development and managing environment, caused environment-development relations to be reinterrogated. The close relationship between development and environment, is undeniable, production factors are entirely met from environment. To make development sustainable, depends on sustainability of resources.^{305 306}

300 Turkish Atom Energy Authority, "Nuclear Energy and Environment/ Sustainable Development," (Prep. Serpil Aktürk, Ayşen Tongal), Technology Journal, Ankara, May-2004

301 Mehmet Çaklıcıoğlu, "Sustainable Tourism for Sustainable Development," <http://www.kentli.org/makale/kalkinma.htm> (reached in 02.07.2012)

302 Kemal Görmez, "Çevre Sorunları ve Türkiye," Genişletilmiş 2. Baskı, Gazi Büro Yayınevi, Ankara-1997, s.18As

303 Uğur Yıldırım, Şerif Öner, Mentioned article., p. 6-27

304 Uğur Yıldırım, Şerif Öner, Mentioned article., p 6-27

305 Kemal Görmez, "Çevre Sorunları ve Türkiye," Genişletilmiş 2. Baskı, Gazi Büro Yayınevi, Ankara-1997, s.18As

306 İsmail Gökdayı, Mentioned work.,, p. 166

On one side sustainable development depends on material and resources on the other side to the culture. In general meaning, ending extravagance and consuming resources by dirtying is

an absolute necessity. Using resources in a balanced way is obligatory where future generations also has a share. In this point, resource usage based on understanding the aim of creation and structure of thing is the only solution rather than technologic and economic criteria.

Creative measures and policies to convey sustainable cities opinion into application which makes up an important ring of sustainable development, strategy should be in a reaching way of meeting potential of mankind's today and future requirement. That's why, a transformation process is needed in resource using, directing investments, orientation of technology and changing insttutional structures.

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