

Environmental Impacts of Globalization and a Solution Proposal

Assist. Prof. Dr. Abdullah Karataş
Niğde University Vocational School of Social Sciences
Local Governments Department, Niğde
Turkey

Abstract

Natural or artificial, all the environmental components are constantly converted in line with the priorities of international capital. Balance between development and environment cannot be achieved under the unavoidable effects of globalization. Cities become consumption centers rather than production. Focusing on more earnings and savings brings about the destruction of the urban environment; it gives irreversible damages to environment. To prevent such a disaster besides legal measures, it is primarily necessary to increase people's awareness. Environmental education is a very important tool in this movement. It will be possible to change people's environmental perspective in a positive way with environmental education. People with high levels of environmental awareness can shed light on the solution of environmental problems. Within the scope of this theoretical study that deals with the environmental problems as a reflection of globalization, environmental education activities will be emphasized as a solution proposal.

Keywords: globalization, cities, environmental problems, environmental education

1. Introduction

Today's environmental problems mostly arise from human activities. Pollution and the depletion of natural resources, dwindling plant and animal biodiversity, the loss of wilderness, the degradation of ecosystems, and climate change are all the environmental concerns caused by humans (Cochrane, 2007). With the help of technology and science human has transformed and destroyed nature for centuries. However as a result of this destruction, serious environmental problems threaten the future of his own future. At this point technology is helpless to save the earth. The deterioration of the environment produced by technology is a technological problem for which technology has found, is finding, and will continue to find solutions. Hundreds of millions of dollars have been devoted to improve the quality of the environment and that much more will be spent in the future. Despite these intense efforts expended in 'saving the environment', it is questionable whether current scientific and technological approaches can be sufficiently effective in solving numerous environmental crises (Huesemann, 2001: 271-272).

Humanity faces a dire and growing crisis. Technological advances in the past - such as the mobilization of fossil fuels and the spectacular increases in food production flowing from improved plant breeding techniques have both raised living standards and imposed unanticipated and unwanted side effects on the environment (Bowers, 2010). Industry, mass consumption and the increased energy needs of a growing global population are partly responsible for pollution, resource depletion and species extinction. Globalization has occurred alongside and sometimes nurtured these developments. Globalization, which is partly synonymous with rising international trade, has fostered the rapid production, trade and consumption of material goods in unprecedented quantities. This has weighted the ecological footprint of human activities around the world. While it's still difficult to assess the impact of globalization on the environment, it's quite obvious in some areas. Today globalization's negative environmental effects are more apparent. For example, increased pollution linked to transport immediately comes to mind (Huvart and Verdier, 2013). These adverse effects show themselves in cities with pollution, unplanned urbanization, destruction of historical environment and overpopulation. Before finding technical solutions to environmental problems, raising environmental awareness of people should be achieved. Environmental education is a very important tool in this context.

2. Globalization as a Concept

Globalization is the act of globalizing; from the noun “global“ meaning “pertaining to or involving the whole world“, “worldwide“, “universal”(Oxford English Dictionary). Globalization, as a concept, refers both to the "shrinking" of the world and the increased consciousness of the world as a whole. It is a term used to describe the changes in societies and the world economy that are the result of dramatically increased cross-border trade, investment, and cultural Exchange (New World Encyclopedia). Globalization is the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa (Giddens, 1990: 64). There are nearly as many definitions of globalization. One review provides a classification of at least five broad sets of definitions (Najam, Runnalls and Halle, 2007: 4-5):

- **Globalization as Internationalization:** The “global” in globalization is viewed as simply another adjective to describe cross-border relations between countries. It describes the growth in international exchange and interdependence.
- **Globalization as Liberalization:** Removing government-imposed restrictions on movements between countries.
- **Globalization as Universalization:** Process of spreading ideas and experiences to people at all corners of the earth so that aspirations and experiences around the world become harmonized.
- **Globalization as Westernization or Modernization:** The social structures of modernity (capitalism, industrialism, etc.) are spread the world over, destroying cultures and local self-determination in the process.
- **Globalization as Deterritorialization:** Process of the reconfiguration of geography, so that social space is no longer wholly mapped in terms of territorial places, territorial distances and territorial borders.

Globalization is defined as the elimination of barriers to trade, communication, and cultural exchange. The world today has become very different from what it was previously, because of globalization. With advances in technology and communications, the world becomes deterritorialized, the constraints of geography shrink and the world becomes more singular and unified (Abdulsattar, 2013). Globalization is a cover term for a number of the significant social transformations people have experienced: new information and communication technologies, reduced transportation costs, and as a consequence of both the compression of space and time, resulting in an intensification of cross-border economic processes, the weakening of the sovereignty of the national state, and a restructuring of spatial and social conditions (Haberland, 2009). Covering a wide range of distinct political, economic, and cultural trends, the term globalization has quickly become one of the most fashionable buzzwords of contemporary political and academic debate. In popular discourse, globalization often functions as little more than a synonym for one or more of the following phenomena (Irani and Noruzi, 2011: 216):

- **Economic Liberalization:** The pursuit of classical liberal or free market policies in the world economy,
- **Westernization:** The growing dominance of western forms of political, economic, and cultural life,
- **Internet Revolution:** The proliferation of new information Technologies,
- **Global Integration:** The notion that humanity stands at the threshold of realizing one single unified community in which major sources of social conflict have vanished.

The process of globalization, which has been evolving over several centuries, has been greatly amplified over the past two decades by the transnational economic reshaping of world trade and investment, as free market economics has achieved ideological and political ascendancy. The concurrent revolutions in human mobility and electronic communications have contributed to this interconnectedness (McMichael, 2000: 1121). On the other hand, globalization presents a mixed blessing for the environment. It creates new opportunities for cooperation but also gives rise to new issues and tensions. For example, liberalized trade may generate economic growth, which, in turn, may translate into increased pollution, including Tran’s boundary spillovers of harm and unsustainable consumption of natural resources (Esty and Ivanova, 2003). This situation exerts a tremendous pressure on the environment. The destruction of nature that comes with urbanization reaches dimensions that threaten the future of all living beings. Therefore, cities become more and more away from being livable in each passing day.

3. Environmental Impacts of Globalization on Cities

Cities have multiplied and expanded rapidly worldwide over the past two centuries. Cities are sources of creativity and technology, and they are the engines for economic growth (McMichael, 2000: 1117).

Cities make up only two percent of the earth's surface, yet they are home to over half of the world's population. In Europe, the proportion of urban dwellers is even higher. Today, nearly 75% of Europeans live in cities and urban areas, and by 2020 this is expected to rise to 80% (European Union, 2010). The growth of cities and the continuing strength of older urban areas like New York, London and Paris is no accident. Globalization and new technologies attract people to big cities, by increasing the returns to urban proximity (Glaeser, 2009). Urbanization pressures on the environment lead to major environmental problems.

Globalization generates new challenges in preparing strategies for urban development because globalization threatens to exacerbate urban environmental pollution and natural resource degradation. Urban environmental problems are threats to people's present or future wellbeing, resulting in human induced damage to the physical environment in or borne into urban areas. Urban environmental issues are raised by urban development initiatives and are related to environmental problems. They are (Suresh, 2003: 558-559):

- Localized environmental health problems like inadequate potable water and sanitation facilities, indoor air pollution and excessive crowding
- City regional environmental problems like ambient air pollution, inadequate and inefficient waste disposal management, pollution of water bodies and loss of green areas.
- Extra urban impacts of urban activities like ecological disruption and resource depletion and emission of chemicals and green house gases.
- The urban impacts of regional or global environmental burden that may arise from activities outside the city's geographical boundaries, but will affect people living in the city.

Global modes of production and accumulation are intimately linked to environmental degradation (e.g. extraction of natural resources and multiple forms of pollution via commodity production) (Jorgenson and Kick, 2003: 196). Urban populations interact with their environment. Urban people change their environment through their consumption of food, energy, water, and land. And in turn, the polluted urban environment affects the health and quality of life of the urban population (Torrey, 2004). The expansion of urbanization is a cause of globalization, because globalizations promote industrialization for higher demand of global market system. This is created environmental problems or threats to people's present or future wellbeing, resulting in human induced damage to the physical environment in cities. Urban environmental issues are raised by urban development initiatives and are related to environmental problems. They are: Localized environmental health problems like inadequate potable water and sanitation facilities, indoor air pollution and excessive crowding.

City regional environmental problems like ambient air pollution, inadequate and inefficient waste disposal management, pollution of water bodies and loss of green areas. Extra urban impacts of urban activities like ecological disruption and resource depletion and emission of chemicals and green house gases. The urban impacts of globalization and environmental burden that may be arise from outside of the cities' geographical boundaries. It will affect all the living beings in cities. So the better urban practices and governance could help to reduce these environmental problems (Ullah, 2014: 19). However, despite all measures these problems continue to increase. Yet despite four global environmental summits (in 1972, 1992, 2002 and 2012) and a proliferation of multilateral environmental treaties and domestic environmental laws over the past forty years, the global environment has continued to deteriorate (Christoff and Eckersley, 2013: 2). Strict laws, dissuasive penalties can be effective up to a point. However, radical changes in society should be made first regarding environmental awareness of people. At this point, changing people's attitude towards environment is of great importance. Environmental education activities can be able to guide people in this regard because people's behavior and attitudes can only be changed through education at desired level.

4. Environmental Education and Its Role in Solving Environmental Problems

In the 1960s, awareness of the negative impacts of mankind on the natural environment rose, and environmental policies and programmes worldwide were developed. People became more aware of their own impact on the environment in their everyday life and, in parallel, their influence on the way their local community is run. The idea emerged that a citizen could influence public decisions that impact ones quality of life (at least in democratic countries). That is when the need for environmental education emerged, covering two aspects: inform people of environmental systems and educate them so that they adopt a more responsible attitude towards the environment. The idea was not to dictate how to behave but to help people make informed choices (European Union, 2011).

Environmental Education (EE) is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems, and which has the knowledge, attitudes, motivation, commitment, and skills to work individually and collectively toward solutions of current problems and the prevention of new ones (Matarasso and Dung, 2002: 4). In 1977, the goals of environmental education were agreed in the Tbilisi Declaration at the Intergovernmental Conference on Environmental Education held at Tbilisi. They were amended at UNESCO meetings in the Asia-Pacific region in order to capture the notion of sustainability. The three goals of environmental education agreed upon are (Institute for Global Environment Strategies, 2004):

- To foster clear awareness of, and concern about, economic, social, political and economic interdependence at local, regional, national and international/global levels;
- To provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment;
- To develop and reinforce new patterns of environmentally sensitive behavior among individuals, groups and society as a whole for a sustainable environment.

The above goals were better defined 20 years later by 5 objectives which were outlined in UNESCO-UNEP Environmental Education Newsletter. These objectives are to improve (Kadis and Avraamidou, 2008: 64).

- **Awareness:** To help social groups and individuals acquire awareness and sensitivity towards the environment as a whole, and issues, questions, and problems related to the environment and development.
- **Knowledge:** To help individuals, groups, and societies gain a variety of experience in, and acquire a basic understanding of, what is required to create and maintain a sustainable environment.
- **Attitudes:** To help individuals, groups, and societies acquire a set of values and feelings of concern for the environment, and the motivation to actively participate in protection of the environment.
- **Skills:** To help individuals, groups, and societies acquire the skills for identifying, anticipating, preventing, and solving environmental problems.
- **Participation:** To provide individuals, groups, and societies with an opportunity, and the motivation, to be actively involved at all levels in creating a sustainable environment.

To achieve the above objectives, a system of guiding principles for environmental educators has been set up, which are (Matarasso and Dung, 2002: 5):

- EE should consider the environment in its totality – natural, man-made, technological and social (economic, technological, cultural-historical, moral, aesthetic);
- EE should be a continuous and lifelong process, beginning at the pre-school level and continuing through adulthood in all formal and non-formal sectors;
- EE should be interdisciplinary in its approach, drawing on the specific content of each discipline in order to gain a holistic and balanced perspective;
- EE should examine major environmental issues from local, national, regional and international viewpoints so that students appreciate environmental conditions in other geographical areas;
- EE should focus on current and potential environmental situations while taking into account the historical perspective;
- EE should promote the value and necessity of local, national, and international co-operation to prevent and solve environmental problems;
- EE should assist others to explicitly consider environmental concerns when planning for development and growth;
- EE should enable learners to play a role in planning their learning experiences and provide opportunities for making decisions and accepting their consequences.
- EE should enhance environmental sensitivity, knowledge, and problem solving skills and establish values;
- EE should help learners to identify the symptoms and the root causes of environmental problems;
- EE should emphasize the complexity of environmental problems and thus the need to develop the skills to think critically and solve problems;
- EE should use diverse learning environments and a broad array of educational approaches to teach and learn about, and from the environment, with an emphasis on practical activities and firsthand experience.

EE is more than information about the environment. Differences between EE and environmental information (EI) are as follows (EPA, 2015):

- EE increases public awareness and knowledge of environmental issues; EI provides facts or opinions about environmental issues.
- EE teaches individuals critical-thinking; EI does not necessarily teach individuals critical-thinking.
- EE enhances individuals' problem-solving and decision-making skills; EI does not necessarily enhance individuals' problem-solving and decision-making skills.
- EE does not advocate a particular viewpoint; EI may advocate a particular viewpoint.

As seen from the above descriptions and definitions, environmental education is a very comprehensive instrument for the solution of environmental problems. Not only within the scope of formal education in schools, EE should be implemented and expanded in all sectors of society.

5. Conclusion

Humans have become an increasingly powerful environmental force over the last 10,000 years. With the advent of agriculture 8,000 years ago, they began to change the land. And with the industrial revolution, they began to affect their atmosphere. The recent increase in the world's population has magnified the effects of their agricultural and economic activities (Torrey, 2004). This situation has brought about globalization. With globalization pressures to the environment have increased. Globalization contributes to economic growth and thereby affects the environment in many ways. It accelerates structural change, thereby altering the industrial structure of countries and hence resource use and pollution levels. All dimensions of globalization adversely affect the natural environment (Panayotou, 2000). Globalization aims to convert all kinds of value, cultural and natural assets to money. To evaluate this aspect of globalization as the main responsible of the ecological changes will not be wrong (Keleş, 2014). The focus should perhaps be on a few natural resources now being rapidly degraded or polluted or at risk of further deterioration: These are land, water, forests, biodiversity, clean air, and climate change and ozone depletion. Land degradation has become a global problem. Nearly 2 billion hectares of cropland, pastures and forests worldwide have been degraded over the past fifty years. Desertification causes economic instability and even political unrest in the areas affected.

Half of the world's wetlands disappeared in the past century. It is estimated that water use will increase fifty percent in the next thirty years. And half of the world population will be living under severe need for substantial improvements in managing water sources. Biodiversity is another important issue. This is often understood as a wide variety of plants, animals and micro-organisms. But it also includes genetic differences within each species. It provides many goods and services that sustain lives of humans. Pollution from transport is another major concern. There are adverse health effects of exposure to air pollution in urban areas as a result of increasing number of motor vehicles. And there are the effects on global climate change (Keleş, 2012: 29-28). One of the most important factors that is influenced by the change that comes with globalization is the environment. Pressures to the environment by globalization threaten the future of all living beings. As inevitable results of globalization process; developing industrial sectors, shopping malls, successively established factories and tourism activities cause unavoidable environmental problems. Because of globalization, original local environmental values of cities disappear and become identical. Toxic and chemical wastes of factories and industrial organizations lead to environmental pollution and seriously threaten the environmental health of the cities. Today humans need to be conscious about the environment because environmental problems have reached uncontrollable dimensions as a result of unconscious actions and behaviors against nature. Humans shouldn't forget that they are parts of nature and need it to exist.

However nature doesn't need humans to exist. Humans should learn to live in harmony with nature. EE is a key to this harmony. Global environmental problems can be avoided with such a measure. In order to instill environmental awareness to the society, all level of educational institutions and local government units in cities should work together to support educational activities. Environmental education is of great importance in raising public environmental awareness and internalizing environmental values. Creating environmental awareness both through non formal and formal educational activities can provide great benefits for the environment. Especially in city centers seminars, presentations, panels and the other educational activities would be very useful for raising environmental awareness of people. Local governments, universities, non-governmental organizations, formal and informal institutions should work together and support all the activities in this regard.

The power of the media should not be underestimated at this point. Media has an important role in informing people about the environmental problems. Local environmental problems can be addressed by local television channels and newspapers. Thus people's attention can be drawn to environmental problems. Educational programs for all age groups can be presented on local TV channels. Students in all level of schools from elementary to higher education should be given environmental education. Negative effects of globalization can be cleared only by giving environmental awareness to the people. EE is the most important tool of this awareness.

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