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NATURAL RESOURCES PROTECTION APPROACH: HIDDEN PRIORITY IN SUSTAINABLE DEVELOPMENT EDUCATION CURRICULUM

***Mahboubeh Soleimanpour Omran**

Department of Educational Management, Bojnourd Branch, Islamic Azad University, Bojnourd, Iran

**Author for Correspondence*

ABSTRACT

Environmental pollution and degradation of natural resources and national reserves not only endanger the life of earth and its creatures, but also create serious obstacles in achieving the goals of sustainable development. This study aims to evaluate the natural resources protection approach in educational curriculum of sustainable development which is neglected in educational curricula. This research is descriptive and analytical. After reviewing the crises of natural resources and environment, sustainable development education, protection approach, variation of values and attitudes appropriate to it, the mission of the educational systems was evaluated in institutionalization of the environment protection culture and participation in the public culture promotion by using protection approach which belongs to the naturalism approaches and emphasize on the preservation of the nature sanctity without having tool vision towards it. Also, it is based on the change in behavior, attitudes and environmental values of human-centered and technique-oriented toward naturalism approach by using environmental, cultural variables and through various sources of information and awareness which is considered as necessary precondition in behavioral change. Therefore, there is an emphasize on the systemic approach with application of awareness raising indicators along with the variation of intrinsic moral motivation in the form of a variety of formal and informal education including education, higher education, media, citizenship education, women's education, etc.

Keywords: *Citizenship Education, Curriculum, Protection Approach, Natural Resources*

INTRODUCTION

Understanding the environment issue from cultural and scientific perspective is undeniable necessity. Environment is a complex web that connects life forms in a way that everything is coordinated and consistent with each other (Boutkin and Edward, 2003). Resource scarcity and environmental crisis occurrence is one of the necessities for inclusion of environmental criteria in human education (Mohammadi and Ashenaei, *et al.*, 2007). While, Iran after the developmental projects implementation during the last 30 years, is unprecedentedly encountered to the crisis of increasing population growth, urbanization and consumerism which all are serious warning that requires the global and national efforts to remove them and much of these turmoil refer to the type of education that shape the human's understanding and believe about the environment. So, environmental conservation and protection of natural resources are regarded as an integral part of the inevitable priorities of today's educational curricula. In this regard, an introduction to the crises that threaten the natural resources and environment is necessary.

Natural Resources and Environmental Crisis

Water Crisis

Optimal utilization of water and prevention of the water resources contamination are key elements for development. Salty water of seas and oceans constitute 97.2 % of world's water which cannot be used because of being salty and only 2.8% constitutes the ground water reserves that 76.7% of it is in the form of polar ices which are in the two poles of the earth. Supplying adequate water is considered as one of the main challenges of government to achieve sustainable development. While in recent years with increasing population and life patterns changing, water consumption amount has grown dramatically in the world (Book collections of SabzAndish executives plan, 2009).

Research Article

Soil

Soil is the habitat of terrestrial creatures and human communities and is the main source of animal feed that its production is done over long periods of time and under certain circumstances, but several factors have endangered it. Scientific studies show that 11% of the world's fertile soils have been contaminated to the extent that they cannot be revived. Degradation of forests and non-normative irrigation in farms and the indiscriminate use of chemical fertilizers and pesticides are some of soil erosion factors (Yarahmadi, 2010).

Air

Earth only during the last two decades is reached to its peak temperature in the last two thousand years. Even one degree rise in global temperature will lead to the significant changes in Earth's weather and conditions of living creatures (Book collections of SabzAndish executives plan, 2009). Global warming (greenhouse effect), the ozone layer reduction, acid rains are some dangers of this section which caused by fossil fuel consumption, population growth, urban development, vehicles, industry development, deforestation, plumbum, evaporative artificial materials, etc. (Yarahmadi, 2010).

Flora and Fauna and Biodiversity

The term biodiversity refers to the comprehensive frequency or diversity of life from plant and animal to microbial life. Over a million species of plants and animals may be destroyed during the coming years that mainly resulted from environmental changes caused by interference. The disappearance of 100 species per day is 1000 times more than the normal and natural developmental disappearance of one fifth of plants and animals are disappearing or will suffer from early extinction (BenSen, 2002).

Consumption and Waste and Environmental Pollution

Whenever human interferes with nature and its fundamental elements harms to its existing balance (Fathi and Farmihani, 2003). Any change in the properties of air, soil, water and food that have had adverse effects on environmental health, human activities and other creatures is called pollution (Miller, 1998). Environmental pollutants can be divided to water pollution, soil pollution, air pollution, sound pollution, pollution caused by garbage and waste (Pourheydari *et al.*, 2006).

Population and Environment

Industrial development began in the eighteenth century with the population explosion and subsequently increased natural resources consumption of earth that ultimately leads to the imbalance in nature. Population growth rate because of education, health and social services is in uptrend so that earth's population reached to 2.5 billion people in 1950 and 6 billion in 2000 and by 2025 the figure is expected to rise to 8 billion people (Broumand, 2001). Iran is the sixteenth most populous country in the world whose population will reach to 92 million by 1400. This population requires resources and has adverse impact on environment (Book collections of SabzAndish executives plan, 2009). Millennium Group of the UN University Report (2001) has considered the population growth as the future world's problems (Ghaedi, 2006).

Sustainable Development Education

The development is multi-dimensional process with complex stages that includes quantitative and qualitative growth of products and services, development, change in quality of life, social fabric of society, adjustment of income, the elimination of poverty, deprivation, unemployment, public welfare and scientific and technology development in certain society (Lahijaniyan, 2011).

Sustainable development was first formally proposed by Brandt Land in 1987 was about environment and development (Sharif, 2010). This term was widespread in scientific circles after the Rio summit in 1992, it aims to meet the five basic needs including integrating conservation and development, supplying basic needs of human life, social justice achieving, self-determination and cultural diversity and ecological unity maintaining (Zarrabi and Azani, 2001). This development has three important dimensions of human, environment and future and human is considered as the most important centers of development. Therefore, human development precedes the economic dimensions' development (Mahmoudi and Veysi, 2005). Experiences of the 1960s showed that the industrialization did not necessarily lead to the economic growth and development because population growth and supplying human needs are generally associated

Research Article

with the destruction of nature (Agenda, 1998). According to the Global Commission on Environment and Development, a development is sustainable that meets the needs of the present generation without compromising the abilities of future generation to supply their own needs (Turnez, 1995). Education and awareness and public understanding will lead to the creation of sustainable changes (Mahmoudi and Veysi, 2005). Sustainable development dimensions which should be considered in sustainable development planning include: 1- Improving the social status, 2- Economic status improvement, 3- Improvement of the ecological and environmental situation, 4- Cultural status improvement, 5- Residential and housing improvements (Environmental Protection Agency Publication, 2009). Therefore, environmental education as the third dimension of the sustainable development is located in agenda of countries (Mirdamadi *et al.*, 2008) and nominalization of 2014 to 2005 with "Education for Sustainable Development by the United Nations" is done to fulfill this aim.

Protection Approach

Environmental approaches and perspectives are rooted in the type of thinking on moral and philosophical foundations and are a combination of environmental philosophy and environmental ethic which have philosophical analysis towards ecological issues and values and why protecting the environment and human's moral obligation toward it and discuss about new relationship between man and the environment (Fahimi and Mashhadi, 2009). The evolution trend of environmental perspectives in the west is divided into the three general mythology-oriented, human-centered and naturalism during an exegetical-historical study (Haghshenas and Zakeri, 2008). According to Hayes (2002) the origins of Western environmental movements thoughts include a range of environmental philosophy, ecofeminism, religion and spirituality, science criticism, phenomenological space, green authoritarian policies, conservative, liberal and socialist traditionalist (Peineh, 2006). Totally, environmental approaches can be divided into two categories including: 1- Environment-oriented: it emphasizes on the intrinsic value of life and living creatures and cohesion of the entire biological community and objects to the human-oriented and exploitation of human beings and considers inherent worth for all living creatures and sees life as an integrated whole. 2- Human-oriented: nature is a dependent element that is tied to the human interests and it is protected in order to support the human interests and objectives. Therefore, the instrumental perception of environment is strong. The protection approach of environment involves the naturalism approaches that emphasizes on maintaining the sanctity of nature without having the instrumental vision.

Environmental Education and Natural Heritage

Environmental illiteracy intensifies the environmental crises (Hungerford *et al.*, 1980). There are at least four types of capital including human-made, natural, human, social, and sustainability can be considered a combination of these four types of capital. Studies show that human-made capital constitutes less than 20 percent of the total wealth. While all the attention has been focused on this small part of total wealth but most of the wealth lies in the human and social capital. So, capitalize on people is considered as the first goal of development (Moharamnezhad and Heydari, 2006). The quality of life and success in the national and global cultures should be redefined in order to achieve a sustainable society and success should be changed from spiritual and educational aspects and consumption quantity to the overall quality of life (Serajadin and Part, 2000).

Change in Attitude and Environmental Culture

Human behavior is influenced by beliefs, values and individual's attitudes. Friedman and colleagues define attitude as durable system that consists of three elements: cognitive, emotional and readiness for action (Huskinson and Haddock, 2004). There is a positive relationship between human-oriented attitude and indifference and people who give priority to the welfare of human beings shows more indifference towards environmental issues compared to those with environment-oriented attitude (Ferdowsi, 2007). The goal of creating environmental attitudes is to help the individuals to obtain a set of values and feelings in relation to the environment and to create incentives for activity in the area of its improvement and support. Moreover, people should respect to environmental issues (Hungerford and Week, 1980) and consider software dimension along with the hardware dimension and technical knowledge of the environment (Kupchella and Hyland, 1977).

Research Article

Educational Systems and Environmental Protection Culture

Formal education covers environmental issues in school and university and in the informal dimension involves in the "Education for All" (Mahmoudi and Weysi, 2005). Formal, informal, media, etc are used to make culture in this area.

Formal Education

Education: Expansion of the education system indicates the increasing need for education in today's world. Alvin Toffler in his book entitled "Education for Tomorrow" writes nowadays educational systems have two monumental tasks in the world that first is to familiarize the younger generation with the results of the experiences of past generations and second is to nurture future citizens (Carnoy, 1999). Schools play an undeniable role as the center of acculturation and transfer of knowledge and values in this field.

Higher Education: The Rio +20 conference in 2012 has been emphasized on the subject of environmental education in educational centers and universities (Zamani, 2012). This issue has been focused in the global arena especially in the formal education systems (DibaaidnaLahijaniyan, 2009) so that for its training the long-term objective and standardized frameworks has been developed in curriculum of different sections until the university (Damadiet al., 2008). Academic systems need to identify the changing requirements of the community and matching them with curriculum (Khaghani et al., 2008). The role of higher education in this area is to train the required specialized manpower of society, to promote and enhance the knowledge, research, and to create a favorable area for environmental development of the country (Bahraini and Mabraghei, 1997) in order to develop its recognition, insight and skills in relation to it (Alvarez and Marcote, 2010), but the research results indicate the low mark of young people in this area (Jurinet al., 2010). The interdisciplinary nature of environmental education, the lack of overall planning, lack of executive guarantee and financial support of programs caused the issue of environmental education not to be seriously considered. While the area of improving the culture and reproduction of cultural values is provided for environmental research activities in universities (Soleyman et al., 2013).

Informal Education

Due to the variety of environmental issues, informal education has great charms (Comprehensive Plan of Public Environmental Education, 2009). In informal environmental education, the following three objectives are pursued: (a) members of society to be able to identify and evaluate their own problems and needs (b) to help individuals achieve the required skills to deal with their problems and needs (c) to convince them to take appropriate actions (Mahmudi and Weysi, 2005).

Citizenship Education: The importance of citizenship education is a plan to build community and to train responsible and informed citizens (Ashtiani, 2006) so that Rousseau considers it as the human and social rescue ship (Kouye, 1999). Every society in any given time period, according to its requirements expects certain demands from its members and with purposeful activities tries to teach them (Agenand Nimkaf, 2006). This type of education tries to develop various cultures and to provide several citizenship patterns (Ashtiani, 2006). Citizenship dependence and education can be seen in the comments of philosophers of education. According to Plato, "The Beautiful City" is only built based on the education (Ghaedi, 2006, 190). The main areas of citizenship education refer to the protection of environment and to educate citizens who are aware of their duties and committed towards others.

Media Training: Media are comprehensive entity of production, reproduction and knowledge and awareness distributing in the new world (Mehdizadeh, 2008). "Turner" proposes four stages for the transition from traditional society including urbanization, literacy in media use, political and economic participation and in this regard, introduces media as an agent of political awareness increasing and public participation expanding (Naderan, 2002). Social learning and benchmarking can be spread through a comprehensive tool such as media in the area of environment (Mahmoudi and Weysi, 2005). Training of large groups, covering the whole population, the impact on the norms and culture, behavior change through imitation of models, increasing awareness, changing attitudes, and training skills are advantages of media in environmental education (Shakibazadeh, 2007). It is impossible to promote the huge masses of

Research Article

people through common methods in developing countries, so mass media can be effective (Rashidi and Rashidi, 2011).

Women Training: According to the opinions of ecofeminism, women can take care of their environment better than men. Women constitute about half of the world's population and because of the power of birth and nurturing inherently interested in the nature. Also, their experiences in the natural resources management and their vulnerability in front of environmental pollution have made them more sensitive to take care of nature. The twentieth resolution of this meeting focuses on the active participation of women. In Agenda 21 all member states of the United Nations was required to consider a greater proportion in their overall policies in their development plan for women and remove their participation barriers in environmental movement (MajidiKhameneh, 2008).

CONCLUSION

Iran in pursuing the developmental projects over the last 30 years confronts to the crisis of population growth, increasing urbanization and consumerism of resources scarcity, increasing energy consumption, species extinctions, desertification and deforestation. Since development has three important dimensions of human, environment and future and environment and natural resources are important prerequisites of research of sustainable development. In this context, it is necessary to recognize the crises that threaten natural resources and environment. An important part of the root of these ravages refers to the type of education that shapes the perception and belief of human towards environment. Therefore, the subject of environmental conservation and natural resources protection has converted to the integral part of prioritized sustainable development and training programs. Implementation of environmental laws need citizens with environmental conscience and respect for the environment becomes an essential and popular culture for them and to be able to create balance between meeting the needs and environment protection. The awareness raising of learners in relation to environmental issues requires the attitude changing of citizens by the use of nature-oriented and natural resources and environment protection approach, and the optimal utilization of it in these educations provides the social growth and progress. Environmental approaches and perspectives have rooted in the type of thought regarding ethical and philosophical foundations and a combination of philosophy and environmental ethics that discuss about values and why protecting the environment and ethical commitment and human's new relationship towards it. The nature protection approach involves naturalism approaches that emphasizes on maintaining the sanctity of nature without having instrumental vision towards it and is based on the change in human behavior which emerges from its environmental attitudes and values. The variation in environmental attitude and culture from human and technical oriented approach to nature-oriented approach in addition to knowledge depends on the environmental variables and religious and cultural features. Therefore, the type of valuation and norms and attitude variation is crucial in determining the accurate and inaccurate behavior towards environment. On the other hand, different sources of information and awareness are considered as a necessary precondition for attitude and if people are not convinced about the role of specific factors in the destruction of the environment, they will not have negative attitude to it. According to this fact, the development of attitudes and values cannot be based on the superficial programs and a systematic attitude should be employed in this context which including the use of awareness raising indicators along with variation of intrinsic ethical motivations that comes from human's unconscious mind and in addition to education and transfer of awareness should take advantage of the change in environmental attitudes and value in the form of formal and informal training, education, higher education, media, citizen education, women education etc.

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Research Article

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