

## Role of Environmental Education in the Climate Resilience of People Exposed to Environmental Asylum from the Point of View of International Law

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نقش آموزش محیط‌زیست در تاب‌آوری اقلیمی افراد در معرض پناهندگی زیست‌محیطی از

دیدگاه حقوق بین‌الملل

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### Abstract:

Climate resilience is referred to the social ability in the event of impulses and environmental degradation in pursuit of activities towards goals. Sustainability is established through adaptability and evolution. This will make communities less likely to witness large-scale emigration and the emergence of environmental asylum phenomena as a response to environmental hazards. The climate resilience thinking, in the context of modern urban ecology, enables the integration of human and ecological factors and understanding of the interactions between them, develops sustainability strategies with respect to identification of interactions. An important discussion about upgrading resilience is paying attention to the participation of the people and the civil society, and it is also necessary to educate people about the environment. Therefore, the present research was aimed at investigating the direct role of environmental education in climate resilience and its effect on environmental asylum phenomena using a descriptive method of documentary analysis. The findings of the research suggested that sustainable development and ultimately, climate resilience will be achieved when environmental information is disseminated among people and through the participation of people in preserving the community. The importance of this issue has not been neglected from the point of view of international law, and several international documents have also been dedicated to this issue. Since the occurrence and evolution of climate resilience and as a result the sustainable development of countries depends on environmental education as the main pillar of each society, it is necessary to take measures in order to increase the environmental awareness of the people

**Keywords:** Environmental Education, Climate Resilience, Environmental Asylum, International Law.

### چکیده:

تاب‌آوری اقلیمی ناظر بر توانایی اجتماعی هنگام بروز تکانه‌ها و تنش‌های زیست‌محیطی در ادامه فعالیت به‌سوی اهداف پایداری از طریق سازگاری، تحول و تکامل است. این موضوع خود باعث می‌شود که جوامع کمتر شاهد مهاجرت وسیع و ظهور پدیده پناهندگی زیست‌محیطی به‌عنوان واکنشی در برابر مخاطرات زیست‌محیطی موجود باشند. تفکر تاب‌آوری اقلیمی، در بستر اکولوژی شهری مدرن، امکان یکپارچه‌سازی عوامل انسانی و اکولوژیکی و درک تعاملات بین آنها، بسط راهبردهای پایداری با توجه به تعاملات شناسایی را فراهم می‌آورد. بحث مهم در زمینه ارتقا تاب‌آوری، توجه به مشارکت مردم و جامعه مدنی است و لازمه آن هم آگاهی و آموزش مردم درباره محیط‌زیست است. هدف این پژوهش که با استفاده از روش توصیفی از نوع تحلیل اسنادی صورت گرفته، تبیین و تحلیل نقش مستقیم آموزش محیط‌زیست بر تاب‌آوری اقلیمی و اثر وضعی آن بر پدیده پناهندگی زیست‌محیطی است. یافته‌ها حاکی از آن است که توسعه پایدار و در نتیجه تاب‌آوری اقلیمی، زمانی محقق می‌شود که اطلاعات زیست‌محیطی در میان مردم گسترش یابد و مشارکت مردم در حفظ جامعه دوچندان شود. اهمیت این مقوله از دیدگاه حقوق بین‌الملل هم مغفول نمانده و چندین سند بین‌المللی هم به این امر اختصاص یافته است. از آنجاکه رخداد و تحول در تاب‌آوری اقلیمی و در نتیجه توسعه پایدار کشورها منوط به آموزش محیط‌زیست به‌عنوان رکن اصلی هر جامعه است، لذا انجام اقداماتی در جهت افزایش آگاهی‌های زیست‌محیطی مردم ضروری به نظر می‌رسد.

**واژه‌های کلیدی:** آموزش محیط‌زیست، تاب‌آوری اقلیمی، پناهندگان زیست‌محیطی، حقوق بین‌الملل.

## Introduction

Over the past century, the world has witnessed significant changes and achievements in the field of the environment, which in turn, has created many problems, so that it can be said that at the beginning of the 21st century the situation has reached an unsustainable development. Issues such as climate change, the formation of holes in the ozone layer, and destruction of some of its natural varieties are among the most important issues. The socio-economic, biological, social-demographic set-up, focused on environmental issues, led the Norwegian Prime Minister in the United Nations to conduct the research in the United States in the 1980's under the heading " Our Common Future ", followed by various World Conferences in 1992 titled as " Agenda 21 "or" Earth Summit "and in 1995" Women's Summit"and in 1996 as" Accommodation 2 "or The"City Summit" aimed at enhancing the health, well-being, safety, compatibility, equality and sustainability, and so far, the planners of various sciences have been considered as one of the dominant global competencies.

Climate resilience has become an important concern for today's societies, so it is important to pay attention to it in particular countries. Sustainable development is a climate-friendly twin. Climate resilience requires a widespread change in the lives of communities at all levels. This change requires the participation of the people and the civil society, and this requires awareness and education of the people in the field of the environment. The severity of the environment degradation due to increasing search for humanity to explore the assets of nature, the speed madness, the thirst for communication, population growth, the development of urbanization and the increase in its wastes,

destruction of forests, acid rain, noise pollution, inexhaustible consumption culture, energy crisis and the limitation on the durability of reserves, the loss and destruction of natural resources, etc., all have caused extreme human interference in nature (Mohammadinia et al., 2012) and disturbed the balance of the natural environment and caused environmental pollution. (Williams,2002; Fathi Vajargah & Farmahini Farahani, 2003; Firoozi, 2005; Gholikhani, 2012; Rezaei et al., 2013).

If the process of overcoming the environmental balance continues, undoubtedly not only the peace and security of human life but also its existence will also be threatened and ultimately destroyed by human life; therefore national and international determination is required to protect the environment. The concern regarding the environment is felt more and more in the various strata of the community (Shobeiri et al., 2013) because the environment and the effects of its destruction are not just a problem of a particular country or region in the world. This is mainly due to the unfavorable events that occurred in the global environment such as thinning of the ozone layer, warming up of the earth and melting of the icebergs. (Mohammadinia et al., 2012) In addition, the growth of energy consumption and the need to increase it, as well as stockpile constraints and running out the fossil fuels and environmental problems caused by resource consumption, on the other hand, are significant reasons for paying more attention to the environmental problems. (Share poor, 2008; Haghghatian et al., 2013) However, education can be considered as a good way to deal with environmental problems, and to achieve a safer and cleaner environment for future generations, to create a biological balance and

help to reduce the environmental problems. (Sarmadi & Masoumifard, 2016; Meiboudi et al., 2013)

As long as sustainable development in any country is related to the public's awareness of the community, education can be very effective in this regard. Environmental education suggests that humans can live in harmony with nature, and accordingly, they can make informed decisions that will be taken into account in future decisions of future generations. Attention to future generations can be considered both as a sustainable goal and common goal with respect to environmental education. As human beings have a significant effect on the environment, environmental education has always been the best tool for raising awareness in society in order to increase the sensitivity, attention and knowledge of the general public on the environmental aspects in order to be resilient, promoting the communities to reduce the potential for emerging immigration and environmental asylum. In other words, environmental education can be defined as a new intellectual system, in which the principles of value, emotions and individual and professional responsibilities, even the behavioral habits of each individual and, ultimately, society must be transformed to preserve the ecological and climate resilience.

Environmental education, as the most fundamental way of protecting the environment, is the bedrock of increasing environmental awareness at the community level, so that with respect to the nature everyone is responsible for maintaining and protecting the environment. (Moharamnejad & Heydari, 2008) As the countries are currently struggling with the environmental issues, the sensitivity of the people is required to take action on those issues, and the present time is the best time to use the citizenship

knowledge in order to protect the environment. In this process, there is a reciprocal relationship between the authorities and the people, in which the areas where the creation and improvement of climate resilience requires people's participation, the people receive the necessary environmental education, and the authorities have got the opportunity to make decisions by ordering them to correctly do their job in a better way, provided that, the orientations focus on the level of environmental education awareness, as well as the attitudes and functional levels. Therefore, considering the importance of the issue and implementation of the research process, the following main question is put forth:

Does environmental education play a role in the climate resilience of the people exposed to environmental asylum from the point of view of international law? The sub-questions are also discussed below with reference to the purpose of the study; considering that international conventions and treaties on the protection of international law on environmental education have been supported in this regard.

- 1) What are the practical measures for environmental education in the international arena?
- 2) What are the principles of climate resilience in the field of environmental education in terms of international environmental law?
- 3) What effect will have the green schools' institutions in this field, for example, the ideas proposed by the green schools and universities?
- 4) What are the consequences of the lack of attention to climate resilience of communities and people on the issue of environmental asylum?

## Research Methodology

This research is fundamental theoretical research, and its method is descriptive-analytical based on the documentary analysis. Descriptive-analytical research can be considered as a continuum, which leads to the conclusion of the analysis by the beginning of the description. The research approach, considering major researches in the field of international law, is also qualitative, and the information gathering method is a library-based. This research is based on evidence from a documentary study, which often contains information, findings, and outcomes provided by previous authors and researchers in the subject area. The method involves identifying and studying available scientific resources, including articles and books related to the subject of environmental education, climate resilience and environmental asylum, and sites of active international organizations in the field of international environmental law and UNHCR<sup>1</sup> and then phishing, classification of information, analysis and interpretation of collected data, and finally answering research questions and conclusions.

## Information and Data

### 1-Environmental Education

#### 1-1-Concepts of Environmental Education in International Law

The term environmental education was first introduced in 1968 by Charles E. Roth, who is known as the father of environmental literacy (Rezaei, 2016), he wrote a book in 1992 stating the roots, evolution, current status, and landscape of environmental literacy. (Rahadoost, 2008) David O'Rour, a pioneer in environmental education, published a book entitled Ecological Literacy in the 1990s. (Hettinger, 2008).

The Global Union for the Conservation of Nature and Natural Resources, as well as the UNESCO<sup>2</sup>, have, in the past and in the moment, sought to develop methods for environmental education and played an essential role in this process. Following the recognition of the term "environmental education", these organizations sought to provide a comprehensive definition of the concept and regulate it, and in this regard, the holding of the "International Workshop on Environmental Education in the Schools Program" in 1970, was one of the most important efforts to define the term "environmental education".

In this workshop, the definition of environmental education was presented as follows: "Environmental education is the identification of values and the explanation of concepts in order to create the skills and trends needed to understand the interdependencies between man, culture and the environment around him. Environmental education also includes activities such as decision making and self-induction of behavioral codes related to environmental quality."(Palmer, 1998)

Following this definition, the International Conference on Environmental Education in Tbilisi, established in 1977, introduced environmental education as follows: "Environmental education increases public awareness and attention to the close affiliation of economic, sociological, and political branches and the ecology of urban and rural areas, and creates opportunities for all people in order to acquire knowledge, identify the values, trends, accountability, and skills needed to protect and enhance the quality of the environment, as well as new patterns of

<sup>1</sup> United Nations High Commissioner for Refugees

<sup>2</sup> United Nations Educational, Scientific and Cultural Organization

behavior for individuals, groups and the entire community for the environment."(Henderson, & Zarger, 2017)

By conducting the Rio Conference and the shifting education towards sustainable development, environmental education also led to sustainable development, and in chapter 36 of the Agenda 21, it was assessed: "Education to improve sustainable development and improve the ability of people to recognize Environmental issues and development is very important. It is also crucial for achieving environmental and ethical awareness, values and attitudes, skills, and behaviors consistent with sustainable development and for making people more effective in decision making."

### **2-1-The Process of Evolution and Development of Environmental Education in International Law**

The evolution of environmental education is the result of the thought of a group of leading thinkers and eminent writers from the eighteenth and nineteenth centuries, including Goethe, Rousseau, Humboldt, Heck, Frobel, Dewey, and Montessori (Palmer, 1998) who have an educational and environmental perspective. The development and evolution of environmental education in international environmental law will be examined in three different periods, prior to the Stockholm conference, from the Stockholm Conference to the "Environment and Development" conference in Rio and after this conference.

#### **1-2-1- Environmental Education before the Stockholm Declaration 1972**

The United Nations Conference on the Human Environment was held in 1972 and became known as the Stockholm Conference. The importance of this conference is that the first formal call for international attention to address the growing environmental problems

and the first UN conference on the environment, but this conference is not the first move to attract attention to growing environmental crisis and, as noted, awareness-raising movements around the world over the years have evolved.

"Convention on the Conservation of Wildlife and Nature in the Western Hemisphere" was held by the US government in 1940 and is considered one of the oldest sources of environmental law, following the London Convention of 1933. The convention calls for the realization of targets for the conservation of all native species of plant and animal that are endangered. Another objective of the convention is to preserve aesthetically, historically and scientifically important places that are geographically covered by this convention. Further, it is noted that the members of the convention are committed to providing facilities for recreation and public education in national parks. Conference of the World Union on the Conservation of Nature and Natural Resources in Paris in 1948, the UNESCO Biosphere Conference in Paris in 1968, Conference of the World Union on the Conservation of Nature and Natural Resources in the United States in 1970, as part of the process of completing the environmental education and introducing it to the international community had great influence and paved the way for further action on environmental education, with its effects on conferences since the 1970s. (Ibid)

#### **2-2-1- Environmental Education from the Stockholm Declaration 1972 to the Rio Conference 1992**

After four years, the first United Nations Conference on the Human Environment in Stockholm, Sweden, was held on June 1972. The conference, known as the "Stockholm Conference," attracted widespread worldwide concern and environmental engagement. At the conference for the first time, the overall

relationship between environment and development was formalized in the context of relations between advanced countries and developing countries. At the conference, the importance of international environmental issues was institutionalized as part of international affairs, and the principle that countries are required to work together on global efforts to better manage global common resources and reduce transboundary pollution was established. Stockholm Conference, in addition to raising concerns and attracting public attention to the environment and training of governments in this area, has had a positive and significant impact; the adopted principles strengthened the basis of future international cooperation in the field of the environment, and was able to coordinate other United Nations bodies that were in some way related to the environment, and to focus on environmental affairs as a cornerstone of the activities of these institutions. (Louis, 1973)

By highlighting the importance of environmental education at the conference, many international activities were undertaken to achieve this principle, including the holding of the UNESCO Special international Workshop 1975 and UNEP<sup>1</sup> on Environmental Education in Belgrade in 1975 and the first intergovernmental conference on environmental education was held in Tbilisi in 1977.

The Global Conservation Strategy plan was codified in 1980 as one of the major initiatives of the "World Conservation Union," "the UN Environment Program" and the "Global Fund for the Protection of Wildlife." This key document emphasized the importance of protecting resources through sustainable

development and the interrelationship between development and protection. The World Conservation Strategy focuses on environmental education, which emphasizes changing the behavior of all communities in order to protect resources and the environment, and one of the long-term goals of environmental education is to make changes as well as to transform trends and behaviors toward nature and environment. Indeed, the Global Conservation Strategy, with attention to the issue of environmental education during the development and protection debate, consolidated the foundations of environmental education in the 1980s, and this strategy will be strengthened and expanded in the following years by publishing a report called our Common Future.

Since the mid-1980s onwards, international efforts have been made to strengthen and complete the Global Conservation Strategy, which was related to general issues, including environmental education, environmental ethics, and culture. 1987 was also considered an important year on the international scene, coinciding with the tenth anniversary of the first Tbilisi conference. The UNESCO and UNEP Congress on Environmental Education in Moscow this year was held. The conference on the causes of the importance of environmental education states that in the long run no action will be taken to reduce local and international threats to the environment unless the level of awareness of the public about the deep link between environmental quality and the continued human needs, expanded and human action requires motivation, and this motivation depends on all-round awareness.

Report of the World Commission on Environment and Development; Our Common Future in 1987, known as Brent land, provides

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<sup>1</sup> United Nations Environment Programme

a global agenda for linking and reconciling environmental and development issues. In the agenda of this report, education plays a central role, as Brent Land in the introduction to this report emphasizes that the changing of norms and behaviors at all levels is one of the important goals that are placed on the agenda, and a change in tendency and Human behaviors depends on the subject of education, debate and public participation. (WCED<sup>1</sup>, 1987)

### **3-2-1-Environmental Education from the Rio Conference 1992 to date (Education for Sustainable Development)**

Following the idea of sustainable development in the 1980s, the relationship between environmental issues, economy, and development were broader. In fact, from this time, international environmental law experiences new issues. The issue of sustainable development is the central issue of this development, which includes new issues such as technology transfer, climate change, green economy, and poverty. Along with this shift towards sustainable development, environmental education is also focused on sustainable development. Two decades after the Stockholm Conference, the United Nations Conference on the Environment was held that was far larger and more massive. The title of the conference was the "United Nations Conference on Environment and Development," also known as the "Earth Summit" or the "Rio Conference." The conference brought important achievements, including the Rio Declaration on Environment and Development, Agenda 21, the Convention on Climate Change, the Convention on Biological Diversity and the Non-binding Forest Declaration. Among them, the Rio Declaration and Agenda 21 are more important in environmental education.

Rio's statement on environment and development has called for public participation, public education and information to be the best way to tackle environmental problems, and emphasizes that, at the national level, everyone should be fully informed about the environment that public authorities have access such as information on the hazardous substances and activities in their area and the ability to participate in the decision-making process, and governments, through the dissemination of environmental information, should work on promoting and raising public awareness in this field.

Agenda 21 is a 400-page document that consists of one introduction, four sections and 40 chapters and aims to provide solutions for sustainable development. In fact, education, public awareness, and vocational training are linked to all agenda topics, and especially with regard to topics related to basic needs, ability, information, and data, science and the role of major groups, this link is very closer. Chapter 36 of Agenda 21 introduces the theme that education can provide people with environmental and ethical awareness, values and behaviors, trends, and skills needed for sustainable development. This chapter also emphasizes that education should not only address the natural environment but also include the social, economic, and human development environments.

In fact, Chapter 36 of Agenda 21 is the beginning of the idea of education for sustainable development, which, in the next years, has become a global concern. Education, the most effective mechanism of society to face the greatest challenge of this century that is sustainable development, hence education as one of the main programs for sustainable development, was raised. This chapter identifies four main axes for sustainable development: promotion of achievement of high-quality education,

<sup>1</sup> World Commission on Environment and Development

orienting existing education to sustainable development, raising public awareness, providing training programs for all sectors of the private sector and society; these four axes are effective part of the United Nations Decade of Education for Sustainable Development.

Ten years after the Rio Conference in August 2002, another conference entitled "The World Summit on Sustainable Development" was held in Johannesburg, South Africa, the most important output of that was the "Johannesburg Implementation Plan." The documents and approvals of the meeting were largely based on the achievements of the Rio Conference and pursued the agenda of 21 and the achievement of sustainable development in a variety of dimensions.

The program for sustainable development is an educational approach that seeks to empower people to take responsibility for a sustainable future. The program, which follows the adoption of United Nations General Assembly resolution "A / RES / 57/254" in 2002 on the designation of the 2005-2014 decade as a decade of education for sustainable development, includes social, cultural, economic and environmental dimensions. In all of them, education is considered as the pillar and main tool for achieving the goals of the program. (UN, 2002) In November 2014, a conference was held in Aichi Nagoya, Japan, and presented the final report on the achievements of this decade and ratified the framework of the program for education for United Nations beyond 2014.

The Ahmadabad Declaration 2007 (Tbilisi Program +30) and the World Conference on Sustainable Development Education (Bonn Declaration 2009) are among the other efforts of international environmental law in

confirming previous documents. The process of worrying global environment and the need to assess the extent to which the goals set at the Rio Conference in 1992 led to the holding of another conference in Rio +20 in Brazil in June 2012. "The Future We Want" was the title of the final statement of the 2012 Rio Conference. In addition to the above, the statement emphasizes the role of popular participation in achieving sustainable development and the role of education in this field. The participants in this summit reaffirmed their commitment to the right to education and committed themselves to achieving global education, especially in developing countries, and also emphasized equal access to education and encouraged countries to promote informal educational programs to raise awareness of sustainable development among individuals, especially young people; and Ultimately, the importance of supporting of educational institutions, especially in developing countries, to advance the national goals of sustainable development and to conduct research and innovation in pursuit of sustainable development goals, has been emphasized. (Gupta et al., 2017)

### **3-1- Implementing Measures of International law in Pursuit of the Objectives of Environmental Education**

In order to achieve the goals of environmental education, the need for broad participation in international affairs is essential. So to achieve this, global action and providing practical solutions to governments are indispensable. Obviously, the international arrangements to provide practical solutions to governments on environmental education have led to the development of internal regulations for environmental education.



### **1-3-1- Holding of Conferences and International Conferences**

Environmental education at a number of conferences has been considered as a specific topic. As noted, some international meetings specifically focus on environmental education and providing educational solutions to participating countries to improve the status of environmental education. These conferences are considered to be the most effective international conferences that have raised the international community's attention to environmental issues by raising environmental issues, and by emphasizing education and raising public awareness, plans and educational approaches to Participating countries. The most important conferences are the Tbilisi Conference in 1977, the UNESCO and UNEP Congress on Environmental Education in Moscow in 1987, the Rio Conference and the adoption of Agenda 21, the global Summit of Sustainable Development in Johannesburg 2002. Ahmadabad Declaration 2007 (Tbilisi + 30) The World Conference on Education for Sustainable Development (Bonn Declaration) 2009 and the Rio + 20 Conference will focus on the goals of the decade of education for sustainable development.

The holding of the Tbilisi Conference and the adoption of Agenda 21 have great significance to other actions. The Tbilisi conference is considered as a framework for building an international consensus on the issue of environmental education, which undoubtedly has had a profound impact on the development of environmental education policies around the world. In fact, the Tbilisi conference and the subsequent publications still provide a general outline of the development of environmental education in many countries of the world today. Even Chapter 36 of Agenda 21 has also provided the proposals contained in this document on

the basis of the statement and recommendations of the Tbilisi Conference (Rezaei & Jalalian, 2017)

### **2-3-1-The role of the Environmental Law Commission of the World Conservation Union in Environmental Education**

The World Conservation Union has always been at the forefront of environmental activities throughout its history, with its activities in its legal field. The literature on environmental law and many of the laws and regulations that have been created and are currently being implemented internationally, regionally, and locally are the results of this international organization's never-ending efforts. The commission seeks to develop environmental law and environmental regulations through the development of new concepts and tools for environmental law. It also seeks to build capacity for communities to enforce environmental regulations for environmental protection and sustainable development. Developing a program for training courses at the Center for Environmental Law, specializing in developing countries, organizing and supporting short-term regional and global training seminars and training courses, and developing a program for environmental law educators in developing countries. It is one of the important measures of this international institution to promote the level of environmental education.

### **3-3-1-Treaties and International Environmental Conventions**

It should be recalled that environmental conventions are educational in nature, due to environmental issues and attracting global attention to specific environmental issues and that member states receive the necessary knowledge on the issues raised in the convention. In fact, it can be said that the

level of public awareness after the conventions is higher, and culture and capacity building are all the positive signs of the conventions. Some of these conventions specifically refer to public education and awareness to achieve the objectives of the convention, and to provide practical implementation of the convention's educational objectives such as the 1971 Ramsar Convention, the 1972 World Heritage Convention, the 1973 Sites Convention, the 1992 Convention on Biological Diversity, the Convention on Climate Change and the 2001 Convention on Intangible Heritage, along with the documents and treaties that were discussed in the debate on the evolution of environmental education, are some of the most significant examples of this area.

#### **4-3-1-Adoption of Financial Measures in Pursuit of the Educational Objectives of Environmental Conventions**

Resources and financial mechanism have always been discussed at the meetings of the treaty parties as a decisive factor in the extent to which States are committed to implementing the provisions of the environmental treaties. Undoubtedly, the desirability of assistance is a concern because of the lack of international support for national implementation plans and projects, because without the financial support of the objectives of the conventions, they will not be achieved. Education, information, and public awareness are the most important goals of environmental conventions. Without grants, implementation of plans, and training programs, it is not possible. The "Global Facility" and the "World Nature Fund" and the "World Bank" are the organizations that have made significant contributions to the educational objectives of the environmental

conventions. (Russell, 2019)

## **2- Climate Resilience**

International law has taken good measures to reduce the risk of natural disasters in the United Nations, including holding three international conferences in 1994, 2005 and 2015, and preparation of three international instruments for the safety of Yokohama, Honduras, and Sindh. Today, disaster risk reduction is a global priority that is being pursued at various levels. According to the document, there are four priorities for action in relation to the time period from 2015 to 2030, which are part of the solution to prevent the escalation of climate crises: firstly, in the framework of the priority regarding the perceived risk of accidents, the need to understand the risk characteristics and the environment, the need to assess the environmental effects and ecosystem hazards and the need for an adequate understanding of the environmental effects of accidents is felt. Secondly, in the context of the priority regarding strengthening disaster risk management, preparing a national and local strategy for reducing disaster risk in terms of environmental reversibility, strengthening cooperation for implementation and disaster risk reduction strategies in areas of climate change, biodiversity and the environment, is of great importance. Thirdly, within the framework of priority investment in disaster risk reduction for communities, the need to consider the environmental effects of accidents, prediction of environmental changes in urban and rural planning, maintenance of the ecosystems helps to reduce the risk of disasters, strengthening the management and sustainable use of ecosystems, and implementing the integrated environmental management approaches

leading to the reduction of disaster risk. Fourth, the priority is increasing the preparedness for disasters to respond effectively and build better than ever in terms of rehabilitation and reconstruction, the need to take into account the damage caused by climate change and its effects on accidents, the need for countries to increase access to the desired environmental technology.

Therefore, the need for resilience of societies and the adoption of a resilient development approach can be inferred as an important consequence of the serious concerns from these documents.

### **1-2-Concepts of Climate Resilience**

More than half of the world's population lives in cities, and as centers of economic development, they are the source of important environmental issues at different levels and space levels, (Alberti, 2005) and cities are formed as ecological, social systems of subsets of human and biophysical systems whose survival is dependent on natural resources and ecosystem services which they use to survive, (Parivar et al., 2013) but it should be mentioned that population growth and reduction of natural resources and the greater concentration of communities against natural and man-made disasters caused by degradation of natural ecosystems over the past decades have led to the need to achieve urban regeneration and planning in order to assess the current situation in cities. There is a greater sense of understanding with respect to the potentialities and limitations, and predicting future status and developing appropriate strategies for urban development. Resilience is concerned with the capacity of ecological systems to absorb the disturbances, as well as maintaining the feedback, processes, and structures necessary and inherent to the system. (Adjer et al., 2000)

At present, the ecosystem services resurfacing

approach is one of the approaches to obtain the sustainability in societies; and resilience is the extent to which communities are able to tolerate change before they are organized into a new set of structures and processes. (Parivar et al., 2013) Resilience is the overlapping of four sets of which ecosystem services play an important role in the resilience; (Krasny et al., 2009) first set is related to the metabolic flows involving production, supply, and consumption cycles. The second set is related to government networks, including institutional and organizational structures. The third set is concerned with social dynamics and human capital, and the fourth one is the environmental composition, including ecosystem services in urban landforms. Ecosystem resilience refers to the basic capacity of an ecosystem to maintain the ecosystem's desirable services in the face of environmental fluctuations and human exploitation. (Folke et al., 2004) Ecosystem services are the natural processes on which human beings depend for survival and well-being. (McDonald, 2009)

In the newer discussion, the resonance is accelerated in a more advanced way, and it does not take into account only the mechanical resonance restoring the system to its original state, but in this kind of resilience, the state of the system is modified to even better conditions, and more improved than before. (Moghim & Garna, 2019) At the same time, choosing the right type of strategic orientation for creating and improving climate resilience is of great importance. Types of orientations are proposed as defensive, aggressive, or opportunistic. (Ahren, 2011) These strategies are important in creating biodiversity and, consequently, the biodiversity in societies. Since the aggressive strategy is based on the knowledge of ecological planning and revitalization, and most important of all, the public participation,

the role of environmental education will be highlighted. On the other hand, the success of climate change programs depends on the participation of the people and the climate resilience of the sustainable development components in its societies and its twin. Therefore, it is worthwhile to explain the role of environmental education in climate change from the path to the sustainable development, based on two principles of international environmental law, namely, the principle of partnership and the principle of prevention.

### **2-2- Environmental Education and Sustainable Development**

Internalizing the concept of development in the generations of society is one of the indicators of sustainable development, hence investing and planning in training the scientists, skilled, and systematic researchers and, in other words, creating intellectual flexibility and the mobility of thought is considered to be important. The development process has been expanded in all aspects of society, and people as the main factors of development must be educated in the best way to contribute to improving the community, both qualitatively and quantitatively. From another perspective, environmental education makes individuals not only to be resistant to the changes but also it makes them be ready in terms of the flexibility they need. As a result, the climate sustainability of communities, which itself is a component of sustainable development, will be considered as the strength of those societies regarding the assumption of educational goals realization. The concept of sustainability in sustainable development is a situation in which the utility and facilities do not reduce over time, and they are related to the ability of ecosystems to operate indefinitely in the future without

resorting to resource analysis or excessive use of resources. Sustainability is a condition in which social and natural systems work side by side in an intangible form; in other words, sustainability means continuity in something like activity and the creation of a dynamic balance between the many effective factors, such as natural, social, and economic needs of humanity. Therefore, what is considered in sustainable development is a set of conditions leading to a favorable situation, and this goal is pursued in three areas: biological, cultural, and economical. (Dye, 2018) The concept of sustainability is a dynamic concept; sustainability in principle means stability over time. Since equilibrium can only be achieved if all disruptive forces are removed from the balance of the opposition forces are applied to neutralize it, here sustainability implies the preservation of resources and wealth by any generation or level of human beings.

Environmental education should be tailored to the environmental, economic, and social conditions of a region. For a successful education, the main feature to be considered is dealing with a region conditions so as to be relevant to the culture of that region. This training seeks to revise the programs and systems supporting both the content and the methodology of instability in societies. It also uses various educational techniques to enhance the thinking skills and participatory educational planning, promotes lifelong learning, and includes all formal and informal training.

Sustainable development occurs when information on the environment is spread among the people and participation of the people in preserving and protecting it becomes even greater. Without public support, the leap to development will also be problematic; therefore, educating people and

raising public awareness regarding the environment is necessary because it can be transformed or, better understood, and changed through the change in the intellectual and religious beliefs of the people. Thus, the prospects for sustainable development can be predicted using an appropriate model. (Moharramnejad, 2006)

### **3-2- Environmental Education and Climate Resilience**

Environmental knowledge is the sum of the individual's knowledge of environmental issues and, in fact, referring to understanding the importance of the environment. (Leonidou et al., 2010) Environmental knowledge is defined as general knowledge about the facts, concepts, and relationships of the natural environment and its ecosystems; although it is difficult to measure environmental knowledge, knowledge is regarded as a basis for environmental beliefs. (Seif et al., 2016. Barber et al., 2009) As awareness-raising requires education, today, as human activities and their effects increase, the need for extensive and comprehensive training of individuals is also felt in return for environmental responsibility. (Palmer, 1998) The primary objective of environmental education is educating people who are active and aware of their environment and their responsibility in protecting it. Each person has also an environmental sense of sensitivity to events and physical, biological, social, economic, and political changes, and feels worried about the problems arisen in his conscious and creates the skills to develop the desired methods, and devices and solving life-related problems, (Moharramnejad, 2012) finally to provide an environment in which he can play an effective role in terms of climate resilience in case of disruptions and environmental disturbances. Over the past decades, there has been a dramatic increase in

environmental awareness around the world, and previous studies on the human's behavior show a positive relationship between knowledge and behavior, besides many studies, suggested that environmental awareness and knowledge are related to much of the consumer behaviors. (Barber et al., 2009) By fulfilling two essential principles of international environmental law, namely the principle of people's participation and the principle of prevention, practical and effective steps can be taken to create and improve the climate of the communities.

### **1-3-2- The Principle of Participation in Environmental Education and Climate Resilience**

Developing a program is the first and most important step in promoting the resilience towards changing insights and attitudes with respect to the way of community management and planning. This program involves a top-down design and a participatory approach in which everyone plays a role. The most important attempt to promote the resilience is accepting the role of the people and acknowledging the role of the activists, and any action, in accordance with the characteristics, interests, and needs, must have the capability to be entered into the process of upgrading and play a role in this regard. In policy-making, the roles, strengths, and interests of each beneficiary must be considered in the strategy of the community as a strategy for improving society's resilience, followed by plans and funding. The first change in the attitude and insight into the problem of inefficient urban structures and to what extent they are resilient is accepting the role of the public and public organizations as facilitators and abandoning the role of supply and reciprocity. The need for a collaborative approach for resilient

promotion programs requires the participation of all actors and grassroots, inclusive, non-governmental, private and public sector, media, and social networks. (Grillos, 2018) Media and social networks play an important role in terms of participation in the implementation of the programs.

Knowledge of environmental problems is a prerequisite for environmental measures. Environmental education is a means to increase awareness and understanding of environmental problems and to enhance the practice of individuals to solve these problems. To achieve this goal, education should increase individuals' awareness with regard to the mutual response to the physical, biological, social, economic, and cultural aspects of the environment and the dependence of the complex relationship between socioeconomic development and the improvement of the environment.

In fact, this means that through education, you can reduce your ignorance and correct the environmentally-related behaviors, because the cultural and social foundation of each society relies on educating the people. Different environmental contaminants are spread in the environment, mainly due to the lack of individuals' awareness. In the long run, no action will be taken to reduce local and international threats unless people's awareness regarding the deep relationship between environmental quality and the continued supply of human needs increases, requiring the knowledge of individuals. Through education, social, cultural, and biological culture increases, and social rewards are brought to nature and community.

Climate resilience occurs when environmental information is spread among the people and participation of the people in preserving and protecting it becomes even greater. Without

public support, the leap to development will also be problematic; therefore, educating people and raising public awareness with respect to the environment is necessary because it can be transformed or, better understood, and changed through the change in the intellectual and religious beliefs of the people. Thus, one can predict the prospects for sustainable development using a proper model. (Moharramnejad, 2006)

### **1-1-3-2- The Right to Access the Environmental Information; Underpinning the Principle of Partnership**

By increasing the knowledge, individuals' ability for taking actions increases, and their independence in relation to environmental responsibility is also elevated. When people are encouraged and their intrinsic motivation increases, they become more flexible in their lives and enforce environmental protection rules and, consequently, improve their quality of life, which is the motive for continuing the suitable and engaging behaviors. (Rahemi & Taheri, 2004) Once full participation of the people is provided, they have sufficient information about this right as well as the subject of the participation. Hence, access to environmental information is a prerequisite for public participation in decision-making and monitoring public-private activities.

The right to access public information is essential. The importance of this right increases when it comes to the environment because it engages with the lives of citizens and in a wider dimension to the future of humanity. (Vijeh, 2006) Therefore, at the national level, people should have access to appropriate information about their environment and the authorities' actions to address them. Opportunities for increasing participation in the decision-making process

include information that should be made public. Governments should facilitate and encourage public awareness as well as supporting and empowering the wider public through the participation of as many people as possible. Transparency should be made publicly available with respect to the measures and methods applied for preventing and correcting environmental hazards. (Moogoui et al., 2016. Rao, 2006)

### **2-1-3-2-Documents Supporting the Right to Access the Environmental Information in International Law**

In the international legal system, many documents, including Agenda 21 and the Aarhus Convention of 1998, have emphasized the need for governments to observe this right. Article 10 of the Rio Declaration affirms the right of people to access environmental information. The article emphasizes that everyone should have full access to the information that public authorities have on the environment, including information on hazardous substances and activities in the area. In chapter 23 of Agenda 21, in order to strengthen the role of major groups and organizations, it has been taken into consideration that, individuals, groups and organizations should be informed about environmental and developmental information mandated by the national authorities including the information about the products and activities that are likely to have a major effect on the environment as well as information on environmental protection.

The International Convention on the Right to Information and Public Participation in the Environment, known as the Aarhus Convention adopted in 1998, is the first internationally recognized instrument on public access to environmental information. The convention is based on two foundations, namely public access to environmental

information and the possibility of public participation in environmental decision - making. Article 3 of the present Convention sets out a general set of main principles so that, in addition to the government's duty to provide information on the request of all individuals, government agencies should be informed in advance by the individuals regarding how to access and search the information. Additionally, government agencies are required to provide extensive information, particularly through the Internet.

### **2-3-2- The Principle of Prevention in Relation to the Environmental Education and Climate Resilience**

The role of environmental education in terms of creating environmental beliefs and cultural foundations in pursuit of the principle of prevention is of great importance. In light of environmental awareness, it is hoped that the principle of environmental prevention can be better implemented. The principle of prevention prescribes that individuals take preventive measures to prevent and reduce environmental damage. The adoption of necessary measures to prevent predictable events has been widely developed through regular and scientific certainties. The principle of prevention is one of the most well-known principles of international environmental law and is considered as a golden rule in this field. There is no need for prevention, awareness with respect to the dangers ahead and awareness-raising, except through targeted training. Investigating the experiences of different countries and nations and studying the causes of their success or failure in coping with environmental crises can be a valuable source for knowledge transfer. The benefits of inclusive and organized knowledge make people aware of the relationships between events by taking appropriate measures to prevent adverse events, or at least reduce their

damage, and herein environmental education by raising awareness among the society's strata can reduce the degree of their destructive power or indifference to the environment and make every single member of the community as an element to prevent destruction, obviously, education seems to be the first pillar of the golden principle of prevention. (Ramezani Ghavamabadi, 2012)

#### **4-2- The Role of Green University in Climate Resilience**

"Green University" as an approach, on the one hand, emphasizes the modification of the consumption cycles of materials and energy, and, on the other hand, it highlights the reduction of producing the pollutants and waste at universities. Generally speaking, the Green University is a university in which all activities are based on the three-fold aspects of sustainable development, namely environmental sustainability, social inclusion, and economic viability, and reflects the commitment and belief in the role of higher education institutions in getting closer to more sustainable development. Creating a green campus to rescue the communities against the climate change is the biggest move in the next decade, that will drive and manage the demand for accountability, storage of multiple energy networks, smart devices, and new business models. Since universities and research centers have high capacity in community education and culture, they are the most appropriate place to promote the culture of saving, optimizing the consumption and exploiting renewable energies. Clearly, contributing to the preservation of vital resources can be helpful by creating a culture of correct consumption, and increasing the public awareness and reforming the consumption pattern in society. The green

management of universities can be considered as the optimal guidance of a series of targeted and ongoing studies and interventions that will take place at the university's major levels to help the university in achieving the goals. (Aghajani et al., 2019)

The sustainable use of natural resources (materials and energy) and the world's environment has become an inevitable necessity in the societies, whose expansion extends beyond the scope of the powers and monopolies of states, and is a vital issue for all individuals and groups of society, which is not only a component of the inseparable laws and policies of today's societies, but also it is a determinant in the lifestyle and behavior of all individuals, groups and institutions, especially university institutions playing an integral and effective role in society, as key actors in achieving the sustainable, coming futures. Universities are important in achieving sustainable development through the research, and public discourses underpinning society. (Ferrer-Balas, 2008) In addition, universities as a complex organization can be a model for the community such that how an organization can be committed to sustainability. Likewise, they have the opportunity to bring the professionals as more responsible citizens to the community who have both the knowledge and skills needed to change the current unstable process of the world and life.

The Green Rising is underway from the joint efforts of faculty, staff, and students, non-profit sectors, nonprofit businesses, and governments. In this way, in addition to the main functions of education, research, and services universities can be considered a good model for organizations and organizations of the community, considering that they implement the principles of sustainability within the framework, and manage their



hardware and software so that they observe their own activities. The performance of green universities will be realized as, firstly, the principles of sustainability are practical and applicable, and secondly, they will learn how to implement the principles of sustainability. Higher education should act as it advises, and support sustainability as an integral part of its operations, purchases, and investments, and tie these efforts to the curriculum planning. Thus, daily activities of individuals must be proof of a responsible life and, as a role model, will strengthen the values and behaviors desired in the whole society. (Schek, 2007) The green management system applied in many European universities is a tool for achieving sustainability. (Disterheft et al., 2012)

### 3-Environmental Asylum

#### 1-3-Environmental Asylum Concepts

Change is the natural response of humans to environmental and climate change. This response is a form of adaptation to the conditions meaning to repel the risk and increase the resilience and flexibility of the human with these changes, especially when planned. Although the idea of environmental asylum was introduced in 1948, (Warner, 2008) then was revised by Leicester Brown the founder of the World Watch Institute in 1970, (Black, 2001) but the term "environmental refugees" was first used by the United Nations in 1985 as a report on the UN Environment Program policy. (El-Hinnawi, 1985) Since then, it has been discussed in academic and political circles. (Castles, 2002)

Several definitions of environmental refugees have been made, among which, the definition proposed by al-Hinnawi is better known. He stated that the environmental refugees are the people who have been forced to leave their traditional home temporarily or permanently

due to a natural or man-made ecological disruption endangered their lives or seriously affected their quality of life. An environmental disruption in this definition means any temporary, permanent, physical, chemical, or biological change in the ecosystem or fundamental resources in a manner that is not suitable for the protection of human life. (Bates, 2002) There are other definitions presented by scholars in relation to environmental refugees as follows:

- Those who temporarily relocate due to the disturbances such as avalanches or earthquakes.
- Those who have difficulty entering their living environment due to the destruction of their living environment or unacceptable risks to their health and immigration.
- Those who relocate to desertification due to the degradation of land or because of other permanent and non-defective changes that they face at home. (Jacobson, 1988)

Beside this Doctrine, international instruments such as the 1951's Convention on the International Asylum Seekers and the Convention on the Unification of Africa on certain aspects of the refugees' issue in Africa, adopted in 1969, with the extension in the definition of Pena Under the 1951's Convention, environmental protection has also received its umbrella. Also, the Declaration of the Cartagena adopted in the 1984's Latin American Summit has threatened to expose the life and security to the refugees, including environmental refugees.

Several cases have been observed to cause environmental damage caused by climate change and its consequences, massive migration and forced displacement of the population resulting in the emergence of environmental asylum phenomena. By exacerbating the effects of climate change on the environment and change in the environmental conditions, especially in small

villages and towns, the migration of people to big cities has increased to achieve better living conditions. For example, in 2008, around 20 million people migrated worldwide due to climate events. By 2050, the number of these refugees is expected to reach 50 million, and as reported in other estimations, it might reach more than 200 million people. (Alekbajaf, 2104)

### **2-3-Environmental Asylum; the Consequence of the Lack of Attention to Climate Resilience**

Among the sources of international law, United Nations General Assembly resolution 169/42 of 1987 is one of the documents that recognized the importance of reducing the effects of natural disasters on all people, especially the people of developing countries, and has called the 1990s the International Decade for Disaster Reduction. The 2002 World Summit on Sustainable Development in Johannesburg, South Africa, was held in the framework of the agenda to reduce disaster risk reduction with development policies. Following the Yokohama Conference in 2005, a conference was held in Kobe, Japan, in which documents highlight the need for a commitment by the international community to reduce disasters and the provision of an outcome-based, practical agenda for the next decade. In 2012, on the twentieth anniversary of the Earth Summit, there was held the conference on Environment and Development in Brazil. The issue of disaster risk reduction was raised at the conference by United Nations members, UN specialized agencies, and political groups, and this issue was put on the agenda as a new and urgent issue. The UN General Assembly, in resolution A / RES / 67/209, decided to hold the third World Conference on Disaster

Risk Reduction in 2015, which would be the "Documentation Framework for Disaster Reduction in the Years 2030- 2015". The result expected from this framework is "a fundamental reduction in the risk and damage caused by disasters to the life, health, and life of humans, and social, cultural, environmental and business assets in countries." To achieve this, Environmental education will be effective. International law is very rich in natural disasters, so the co-operation of governments in this area and the voluntary implementation of existing international instruments can increase climate resilience to disasters.

IPCC<sup>1</sup> has defined resilience and adaptability in human devices as "the process of meeting the real or expected climate and its effects in order to reduce the damage and use its useful opportunities." Although environmental and climate conditions have always been one of the determinants of population distribution and displacement in history, interference in natural systems, regardless of system capacities and inappropriate management practices and programs, has led to the increased fragility and increased immigration process. In addition to economic and political factors, environmental change is another factor influencing the increase in the rate of immigration, especially in recent decades, which has attracted the attention of researchers and policymakers and is referred to as environmental asylum. As stated by al-Hinnawi, an environmental change resulting in the environmental asylum can include natural changes such as drought or changes in human activities, such as dams. (El-Hinnawi, 1985) In general, environmental asylum may depend not only on climate change but also on state policies, resilience, and the degree of

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<sup>1</sup> Intergovernmental Panel on Climate Change

vulnerability of individuals and communities to the incident.

If the resilience does not improve in the societies, then the whole life is threatened, and the threat is not just about the particular part, and it involves the citizens of the non-life-threatening communities so that they cannot continue their lives properly, and this system will surely cause serious damages. If these communities cannot adapt to and respond to climate disturbances, then they will witness the emergence of the environmental asylum phenomenon for their inhabitants and disease, poverty, inefficiency, and social harm will be caused for people without asylum. Reducing population and migration in order to balance existing capacities and population is compulsory. Such migrations require appropriate management and planning to move the population and accommodate them in other areas with appropriate facilities and livelihoods. In this case, it can be said that migration is an appropriate response to adapt to changing environmental conditions, but today the migration occurred in some parts of the world is not only due to these two factors, but in some cases, it has resulted from the weak management and lack of proper planning to adapt to changes, resulting in the increased marginalization, poverty, unemployment and social and security problems. (Stal & Warner, 2009) Not only does this migration not be an option to adapt to environmental changes, but rather is the result of the ineffective climate resilience. Planned migration is not a transition from bad to disastrous, but a transition from an inadequate career and work environment to a sustainable business environment.

The relationship between migration and the environment is a two-way relationship, in which environmental change can create environmental asylum and lead to environmental change as well as an

environmental asylum. Finally, it should be noted that the interconnection between the environment and the climate and environmental asylum is so high that policymakers have failed to set appropriate policies to handle the issue well. Addressing the issue of climate resilience and its negative consequences requires the cooperation of researchers and policymakers.

Reducing the resilience will increase the vulnerability of the community system, and disruptions and shocks, although in small scale, will lead to a crisis. However, by applying proper policies and considering the status of environmental education, creating and promoting climate resilience can stand against the increasing trend of environmental asylum. Of course, herein the mechanical resurfacing restoring the system is not intended, but in this type of movement, the system status is modified to even better and better than before.

### **Discussion and Conclusion**

Today, the issue of environmental protection has become a serious and vital issue for all countries, which its negligence may cause irreparable damages. For achieving a healthy environment and keeping the environment healthy for the future, environmental education should be addressed as the only solution regarding the environmental issue.

By evaluating the international educational practices, it can be concluded that international environmental law has taken effective steps towards globalizing environmental education, by providing practical solutions to governments for environmental education, and development of regulations domestic for the education of the environment. Environmental conferences are educational in nature. In general, teaching governments and politicians and presenting practical proposals and programs is one of the

primary goals of environmental conferences. This means that the conferences by mentioning environmental issues and problems seek to provide governments with solutions to overcome environmental problems. In addition, at these conferences, education is generally proposed as one of the proposed strategies, and it accounts for a considerable part of the discussion. On the other hand, international and regional conferences focusing on environmental education have played a significant role in raising awareness of environmental issues. Providing new behavioral patterns for individuals, groups and the general community towards the environment, providing governments with a solution to introduce environmental education and education for sustainable development in the formal and informal education system, and shifting the education towards sustainable development can be mentioned as the most important international efforts done to achieve the goals of environmental education.

The findings suggested that a comprehensive transformation process must be developed from one historical stage to another in order to create new capacities and enhance human, educational, and economic capabilities and abilities. The realization of such a process requires the development of societies. International studies and experiences suggested that sustainable development is a human resource base and the precondition of the occurrence and continuation of any development. Development is referred to investing in human resources through education, and in particular environmental education, which is the pivot and core of every society. Therefore, given that education is one of the most effective components influencing the sustainable development of each country, and climate resilience are one of

the indicators of sustainable development, extensive, comprehensive, continuous and comprehensive measures are needed to increase the environmental awareness of the community.

The survival of societies as socio-ecological systems, natural resources, and ecosystem services that they consume, resulting in a resilient understanding of urban environments requiring interdisciplinary understanding and analysis in different scales. When the city is simultaneously capable of balancing the ecosystem and human functions, it is considered to be flexible, adaptive to uncertainty and unexpected events, to preserve and invest in existing and potential opportunities. Finally, it is resilient in the face of challenges. Reducing the resilience will increase the vulnerability of the community system, and disruptions and shocks, although in small scale will lead to a crisis. The origin of ecosystem services is one of the important dimensions of resilience, diversity, continuity, and spatial distribution of homogeneous structural elements. If climate resilience is not promoted in the societies, the whole life is threatened, and the threat is not just about the particular part, and it also involves the citizens of the non-threatened societies, so that they cannot live properly, and such a system will surely cause serious damages. If these communities cannot adapt and respond to climate disturbances, then they will witness the emergence of the environmental asylum phenomenon for their inhabitants, and disease, poverty, inefficiency, and social harm will be created for people without asylum. Creating and promoting successful climate stability of communities requires the participation of people and civil society organizations, and this requires special attention and investment in the field of environmental education,

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