CZU: 373.2.091.214:502 **https://doi.org/10.59295/sum9(189)2025_10**

STUDY ON MODERN EDUCATIONAL PROGRAMS REGARDING ENVIRONMENTAL EDUCATION IN EARLY CHILDHOOD EDUCATION

Georgiana BOLTAȘU (STOICA), Lidia COJOCARI,
„Ion Creangă” State Pedagogical University of Chisinau

The article presents a comparative analysis of modern educational programs dedicated to environmental education within the context of early childhood education, emphasizing approaches and practices from various countries such as Norway, Finland, Austria, the Netherlands, Turkey, India, New Zealand, Spain, and Japan. The study highlights the importance of children's direct contact with nature, experiential and free play learning methods, as well as the integration of practical activities into the preschool curriculum. Innovative educational models are discussed, including ecological kindergartens, specialized nature education centers, forest schools, and national programs dedicated to sustainable development. The analysis underscores the multiple benefits of early environmental education on children's physical, cognitive, and socio-emotional development, as well as the essential role of educators and communities in fostering a responsible and sustainable attitude towards the environment. The conclusions support the need to implement educational programs that promote ecological awareness and active involvement of children from the earliest years of life, aiming to ensure a sustainable future for society as a whole.

Keywords: *environmental education, sustainable development, experiential learning, ecological kindergartens, outdoor education, ecological awareness, nature-based activities, Forest school, Farm kindergarten.*

STUDIU ASUPRA PROGRAMELOR EDUCAȚIONALE MODERNE PRIVIND EDUCAȚIA PENTRU MEDIU LA NIVELUL EDUCAȚIEI TIMPURII

Articolul prezintă o analiză comparativă a programelor educaționale moderne dedicate educației pentru mediu în contextul educației timpurii, punând accent pe abordările și practicile din diverse țări precum Norvegia, Finlanda, Austria, Țările de Jos, Turcia, India, Noua Zeelandă, Spania și Japonia. Studiul evidențiază importanța contactului direct al copiilor cu natura, a metodelor de învățare prin experiență și joc liber, precum și a integrării activităților practice în curriculumul preșcolar. Sunt discutate modele educaționale inovatoare, inclusiv grădinițele ecologice, centrele specializate de educație pentru natură, școala-forestieră și programele naționale dedicate dezvoltării durabile. Analiza subliniază multiplele beneficii ale educației ecologice timpurii asupra dezvoltării fizice, cognitive și socio-emoționale a copiilor, precum și rolul esențial al educatorilor și comunităților în cultivarea unei atitudini responsabile și durabile față de mediu. Concluziile susțin necesitatea implementării unor programe educaționale care promovează conștiința ecologică și implicarea activă a copiilor încă din primii ani de viață, cu scopul de a asigura un viitor sustenabil pentru întreaga societate.

Cuvinte-cheie: *educație pentru mediu, dezvoltare durabilă, învățare prin experiență, grădinițe ecologice, educație în aer liber, conștiință ecologică, activități bazate pe natură, școala-forestieră, grădinița-ferma.*

The increasing concerns about climate change and environmental sustainability have resulted in a heightened interest in nature-based education, prompting governments and educational institutions to recognize the value of learning rooted in nature. In a pedagogical context, environmental education becomes a complex tool for disseminating the values of the surrounding environment, intending to improve quality of life. A key step in the realization of environmental education is raising citizen awareness, which begins in early childhood and continues throughout life.

Despite certain differences in how environmental education is implemented, experts agree on the need to include environmental issues in educational programs. This study aims to analyze how environmental education is implemented in early childhood education across various countries.

According to Romania's National Education Law, Article 4 provides for „cultivating sensitivity towards human issues, moral-civic values, and respect for nature and the surrounding natural, social, and cultural environment” [19, p. 2]. Romania's National Climate Change Strategy starts from the premise that

both children and teachers are aware of the seriousness of the climate and environmental crisis, understand its causes and effects, and know ways to improve or address these challenges. Climate and environmental education is a type of education that promotes „a sustainable lifestyle by developing eco-social competences" [28, p. 5]. The goal of climate and environmental education is to support stakeholders involved in combating pollution, environmental degradation, and climate change, thereby increasing their intervention capacity.

The National Strategy on Environmental and Climate Change Education has four action areas: a national climate and environmental education program; solutions for educational resources; infrastructure for sustainable schools; human resources involved in environmental and climate education [ibidem, p. 16]. **The national educational program on climate and the environment aims to** [28, pp. 16-29] (Table 1):

- Develop children's competencies necessary for actions, mitigating and adapting to climate change and environmental protection;
- Extend learning among all children through the implementation of a national program on climate and environmental education;
- Use new technologies (integrated digital platforms and/or applications) in environmental and climate change education;
- Identify outdoor learning spaces through mapping existing areas;
- Facilitate outdoor learning nationally and within each school;
- Involve schools in community-level environmental protection;
- Promote a culture of sustainability within educational institutions.

Table 1. The relationship between framework objectives – reference objectives – behavior in the discipline „Ecological and environmental education", preschool education

FRAMEWORK OBJECTIVES	
REFERENCE OBJECTIVES	**BEHAVIORAL EXAMPLES**
1. Environmental knowledge though fostering curiosity and inguiry into the surrounding world:	
To discover the main components of the natural environment	to perceive the natural environment visually, audibly, olfactorily, and tactilely; to identify as many environmental elements as possible; to discuss observations in the nearby environment; to conduct simple experiments on water, air, soil, and plants; to represent weather changes through drawings; to express accumulated ideas and impressions verbally or through art
To identify sources of pollution and ways to eliminate them	to participate in walks, visits, and trips to observe pollution effects; to recognize waste; to engage in environmental clean-up actions; to sort images under the model: Yes / No
To understand the concepts of reuse and recycling, learning to economize	to recognize recycling symbols on various packages; to collect reusable natural objects; to properly sort waste; to recycle waste by delivering it to collection centers
2. Developing and practicing practical skills for creating functional, utilitarian products from recyclable or reusable materials	
To process natural materials to create products	to collect various natural materials; to observe characteristics of natural materials; to sort materials using different criteria; to create functional products (toys, decorations, ornaments)
To observe the beauty of nature and feel the desire to recreate it	to engage in games and activities in nature; to express nature's beauty through artistic and craft activities; to organize exhibitions of their work; to create nature stories; to use various techniques to create original artworks, eco-masks, and costumes

3. Developing positive attitudes towards nature through ecological education activities	
To show care for the environment and be capable of taking initiative	to involve parents in their actions; to collaborate in teams; to participate in ecological community activities; to express critical attitudes toward those who pollute; to show care for nature
To express thoughts and feelings about the environment	to share positive personal experiences related to their environment; to appreciate positive environmental attitudes
To apply environmental protection rules and norms in real-life situations	to respect environmental signs/symbols; to plant trees and flowers, and care for green spaces; to protect all living beings, no matter how small

The outlined general objectives are well-structured to develop in children both practical knowledge about the environment and positive attitudes toward its protection. They cover a wide range of practical and cognitive activities that are essential for forming environmental awareness from an early age. Implementing these objectives should encourage children to become responsible citizens, aware of their impact on the environment. By stimulating children's curiosity and involving them actively in hands-on and cognitive activities related to the environment, these goals not only promote a deep understanding of the relationships between humans and nature, but also develop responsible attitudes toward environmental protection and conservation.

By learning to identify natural elements, sources of pollution, and applying principles of recycling and reuse, children are being prepared to become active and engaged citizens in conserving natural resources and maintaining a healthy environment for future generations. Implementing these objectives in educational practice not only enriches children's experiences related to the surrounding world but also contributes to shaping sustainable values regarding respect and care for the environment in which we live.

At the preschool level, environmental education can be addressed both during educational activities and through extracurricular activities and projects organized by various NGOs. In Romania, environmental education projects and programs are implemented from kindergartens to higher education institutions. Some of the most significant include:

- "We Play and Recycle", an environmental education program for preschoolers;
- "Schools for a Green Future", targeting all schools and kindergartens in Romania, aimed at informing preschoolers, children, teachers, parents, and the local community about current environmental issues;
- "Eco-Kindergarten", an international program aimed at improving environmental quality through specific activities that offer an ecological alternative for leisure time.

These projects are organized in partnership with families and communities, where children participate in environmental clean-up activities and selective waste collection in their hometown; awareness campaigns about environmental issues in their village; tree planting; visits to landfills and water treatment plants; eco-themed art exhibitions; recycling natural and eco-friendly materials; drawings exhibitions; environmental-themed performances; eco-TV commercials; presentations of costumes made from recycled materials, etc. (Figure 1).

Figure 1. Green Kindergarten [31]

With the approval of the Framework Methodology on the organization and functioning of „Green Schools", by order of the Minister of Education, the reference framework for the operationalization of the "green schools" network is established, defining the profile of a school/kindergarten that creates a healthy learning environment while saving energy, resources, and money. The "Green School" is an innovative educational model that develops and promotes an institutional culture engaged in environmental issues, responsibly and sustainably manages its resources, and maintains an open attitude toward the community. It fulfills two key functions: eco-education, experiential learning in schools reconfigured as environmentally friendly spaces, and children's involvement in solving environmental problems and promoting sustainable development [28, p. 31-32].

In the **Republic of Moldova**, the concern for environmental education is reflected in several legislative and strategic documents emphasizing the importance of cultivating ecological awareness from early education. Specialists' views on environmental education are highlighted in the legislative support of the education system:

- The Education Law of the Republic of Moldova (1995) states in Article 5, objectives of education, point f): "fostering a sense of responsibility toward the environment and forming ecological awareness" [18, p. 4];
- The Environmental Policy Concept of RM (2001) stipulates the improvement of study programs on environmental law and environmental management in educational institutions [4];
- The Education Code (2014) stipulates in Article 126 the need for education to ensure the overall development of adults in cultural, socioeconomic, technological, and ecological terms [3, p. 55].

These documents emphasize the need for education to ensure not only the general development of children but also the formation of responsible attitudes toward the environment. Integrating environmental education across all school subjects, including through promoting dedicated environmental protection disciplines, is seen as an effective way to foster critical thinking and encourage concrete environmental actions. The "Education 2030" Development Strategy outlines the Moldovan government's education policies for achieving the national SDG 4 targets. As target 4.7 mentions, all learners will gain the knowledge and skills needed to promote sustainable development, sustainable lifestyles, environmental protection, human rights, gender equality, the culture of peace and non-violence, global citizenship, and appreciation of cultural diversity and its contribution to sustainable development [29, p. 39].

In Chișinău, the Wonki Kindergarten (Figure 2) is entirely built from ecological materials. Children spend a lot of time outdoors in the courtyard playground, a space inspired by nature, as well as on the rooftop garden, where they experiment by growing vegetables and strawberries and cook meals from the harvested produce.

Figure 2. Ecological Kindergarten [32]

In conclusion, through the continuous integration and strengthening of environmental education in the educational system, the Republic of Moldova is preparing its citizens to become active agents in promoting sustainability and managing natural resources responsibly, thereby ensuring a solid foundation for the sustainable development of society.

In the United Kingdom, environmental education is actively integrated into the educational framework, supported by both national policies and local initiatives (Figure 3). Environmental education programs in nurseries may vary by region and individual nursery policy. However, several popular programs and ap-

proaches aim to encourage children to become responsible and environmentally conscious citizens. The Forest School model is an educational approach that promotes outdoor learning, particularly in forests or natural environments. This international program encourages kindergartens and schools to integrate ecological practices into their daily routines. Children may engage in activities such as insect hunting, tree climbing, and plant identification [20].

Figure 3. Forest School Kindergarten [20]

This learning method offers many improvements over traditional learning, including a higher level of physical activity, creativity, and even fosters a sense of environmental stewardship at an early age (Figure 4).

Figure 4. Promoting ecological culture through EYFS areas [15]

- Eco-Schools Programs. Kindergartens can earn badges and awards, such as the Eco-Schools Green Flag, for their efforts to become more sustainable and teach children about environmental protection and responsible behavior towards the environment [6].

- Gardening Projects. Many kindergartens have their gardens where children learn to plant, care for plants, understand natural cycles, and the importance of sustainability and biodiversity [24].

- Outdoor Activities. Educators can organize field trips and outdoor activities to help children learn about the natural environment and develop a closer connection with nature.

- **Recycling Programs.** Learning about recycling and waste management is an important part of environmental education. Ecological education is integrated into seven areas: communication and language; physical development; personal, social, and emotional development; literacy; mathematics; understanding the world; expressive arts and design, according to the Early Years Foundation Stage Curriculum [15].

- Inviting Environmental Experts. Kindergartens invite expert speakers or environmental organizations to provide children with additional information and perspectives on environmental issues.

In the USA, more intensive environmental education began in 1962, following the release of Silent Spring by R. Carson, which described the disappearance of birds due to the poisoning of soil, air, and water with pesticides. The impact of this book led to the establishment of Earth Day in 1970, which is still celebrated worldwide on April 22 [apud 13, pp. 28-31]. In the USA, pedagogical programs emphasize the educational value of outdoor play experiences. Various educational centers implement programs that include outdoor learning as an integral part of the curriculum and offer valuable opportunities to learn about and through nature. Nature Preschool programs provide children with outdoor learning experiences, where they can explore the natural environment through free play, observation, hands-on activities, science experiments, and craft projects [10] (Figure 5).

Figure 5. Outdoor play experiences at ENC's Nature Preschool [10]

Researchers such as Samuelsson K. (2008), Davis J., Elliot S. (2014), Ärlemalm-Hagser, and Sandberg (2017) advocate for a transformative and participatory approach, often encapsulated in the term "early childhood education for sustainability", which prioritizes action and views children as agents of change. In a UNESCO-sponsored international workshop report, Samuelsson and Kaga describe environmental education as „simply taking children outside to discover the beauty of nature and talking about the natural environment" [25, p.3]. In an experimental study, Bryder (1992) noted that related educational structures, such as outdoor schools based on health and wellness philosophies, gained popularity as a means of escaping illness in the early 20th century.

In North America, Canada, and Australia, environmental education programs such as "Early Childhood Environmental Education" or "Environmental Literacy Development" are implemented by teachers in partnership with families. These programs focus on environmental knowledge, attitudes, and behaviors for making informed decisions about environmental stewardship. Pedagogical practices include a wide variety of activities [2]:

- Active and immersive engagement – e.g., outdoor hikes, time in nature (visiting a geographic area, gardening, playing with natural materials), play and movement (free play in nature, engaging in imaginative play);
- Reflective engagement – e.g., creative arts (drawing, creating art pieces, puppet shows, singing), development of knowledge and skills (data collection and analysis, problem-solving);
- Analytical and synthetic engagement – e.g., guided classroom discussions, time for reflection, thinking and observing (nature observation, journaling, reflecting on feelings), taking action (recycling, planting a tree, creating an action plan), family connection (sharing experiences with family, family projects, suggesting family activities), personal connection (connecting with prior knowledge, sharing personal experiences).

In France, the education and training system is gradually being transformed to meet digital and ecological transitions. Since September 2020, sustainable development and ecological transition have been integrated into all school curricula from preschool to upper secondary level and are complemented by practical projects. In preschool and primary school, the French curriculum raises awareness among young children through a variety of activities about different life forms and their evolution (Figure 6).

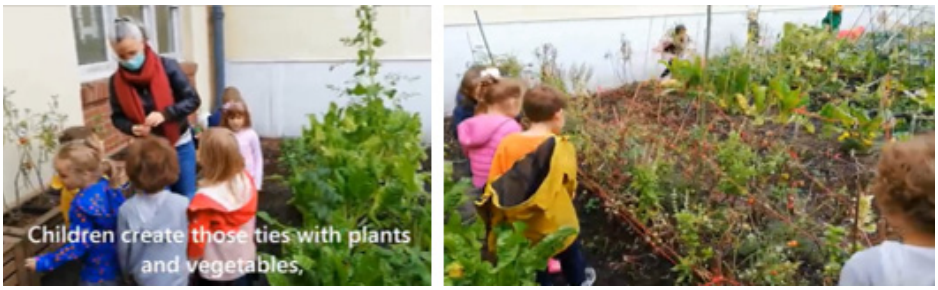

Figure 6. Greening playgrounds [8]

Children also learn about the links between life cycles, health, and the conservation of natural resources and ecosystems. The educational community is involved in sustainability and environmental education pro-

jects such as: green camps, vegetable gardens within school premises, greening playgrounds and children's leisure areas, planting fruit trees and shrubs in kindergarten yards [8].

Norway, as a state, has a significant responsibility for the environmental education of preschool children (Figure 7). The results of the struggle for a clean environment are widely covered in the media and reflected in parliamentary decisions. Currently, the work of public social institutions focuses on theoretical studies of various perspectives on the development and operation of the ecological preschool education system [1]. Norway has a national program of standards for the growth and development of children in public preschool institutions. The Kindergarten Act (2021) in Norway stipulates that environmental education is essential and that children must learn to care for themselves, their peers, and the environment. The "Framework Plan for Kindergartens" (Rammeplan for barnehagen) emphasizes key objectives: connecting children with nature; learning about nature and sustainable development; developing respect for nature and understanding conservation. These objectives are implemented through experiential outdoor learning activities, which are an integral part of the national curriculum [8].

Figure 7. Norwegian preschoolers experiencing outdoor life from an early age through hikes around kindergartens [21]

In Norway, kindergarten teachers must have specialized studies in environmental education. They must possess basic knowledge of ecology and environmental protection, be aware of the current state of the country's natural resources, and have competencies in didactics. In higher education institutions, future educators engage in practical outdoor lessons, where they observe and investigate natural phenomena [13, pp. 28-31].

The environment section of the framework plan aims to organize activities related to environmental protection, emphasizing interaction and interconnection in nature, while also addressing moral and patriotic responsibilities such as love for nature and homeland [17].

This section also specifies that kindergarten educators, through interaction with nature and outdoor experiences, should: provide children with accessible knowledge about nature, ecology, and the world around them; teach children to care for plants and animals; instill feasible knowledge about the interaction between flora, fauna, and humans; foster a sense of love and respect for the surrounding world and nature; create conditions for natural material experiments; teach children to systematize and explain natural phenomena [17].

Outdoor play has a long-standing tradition in Norwegian child care. "Nature kindergartens" emphasize play in nature, while "farm kindergartens" involve children in agricultural activities, such as animal care and vegetable growing (Figure 8). There are no official guidelines for the content of these kindergartens, as each defines its profile. However, children are expected to spend most of their time outdoors, interact with nature and animals, and engage in discussions about ecology and nature conservation. As part of the Norwegian tradition, all kindergartens spend most of the day outdoors, either in playgrounds or natural areas. This gives children numerous opportunities to become familiar with local biodiversity. Environmental education tasks are integrated into free play and hands-on activities such as: work in nature corners, open spaces; walks and forest trips; cultivating gardens; lighting fires; sleeping outdoors, etc. Educators foster direct contact with nature and promote interest in physical activity outdoors [22]. The ideal condition for raising a child in Norway is a situation where they are not limited in their ability to be outside at any time of year.

Figure 8. Nordtvet Farm Kindergarten [23]

In Finland, systematic ecological education begins at age five in specialized centers called "Nature Centers", where various methods are used, such as play, observation, and experimentation (Figure 9). The Finnish Association for Environmental Education promotes, develops, and supports ecological education. Its main objective is to increase the number of teachers and specialists with ecological competencies to help children and youth gain the knowledge, skills, and values necessary to promote sustainable development [apud 13, pp. 28-31].

Some Finnish kindergartens follow the Kamutoki program, which provides comfortable child care focused on environmental education by promoting three dimensions: learning in the environment; learning about the environment; learning for the environment**.** Kamu kindergartens have their gardens, where children: perform seasonal care; observe plants and animals; track signs and phenomena in nature; participate in recycling activities such as: zero-waste camping, food responsibility, energy saving, waste reduction through recycling, repair, and reuse.

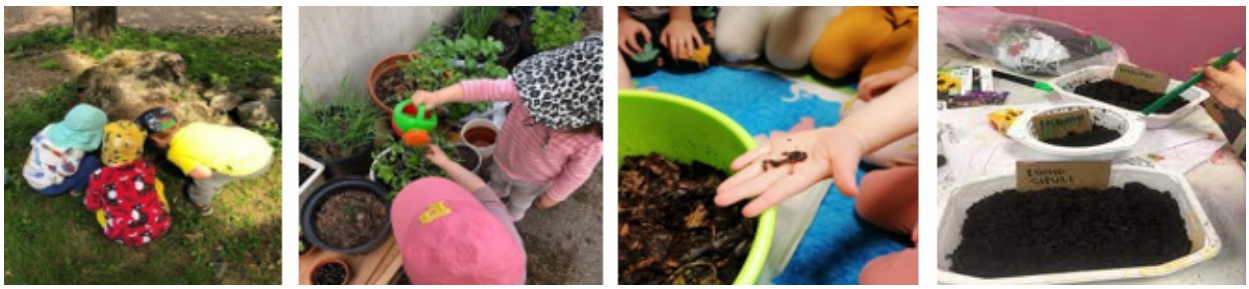

Figure 9. Scenes from Kamukoti Kindergarten, Pitäjänmäki, Helsinki [14]

The Finnish curriculum on environmental education promotes practical competencies such as going outdoors without littering, learning about moderation and economy, responsible eating, energy saving, and reducing waste through recycling, repair, and reuse. In Helsinki, early education supports children's development concerning nature and the environment, combining environmental and climate education, literacy, and creative skills through a program called Kettu [17, p. 47-48]. A key feature of environmental education in Finland is the focus on experiential learning. This means children are encouraged to learn about the environment through practical experiences such as field trips, outdoor activities, and hands-on projects. Teachers are trained to use these methods effectively and integrate them into their teaching.

The Finnish Forest School (metsäkoulu) is an educational program that emphasizes outdoor learning and nature-based experiences. These schools are typically held in forests, parks, and other outdoor settings. Children are encouraged to explore and learn about the natural environment through hands-on activities, wildlife observation, plant identification, building birdhouses, or planting trees. The forest school approach is based on the belief that children learn best through active exploration and experiential learning. By spending time in nature, children can develop a connection to the natural world, essential skills such as problem-solving, creativity, and critical thinking [9].

In Austria, there is a key program for greening schools called "Education for Sustainable Development". To optimally integrate long-term ecological education, the Austrian Association of Nature Parks (VNÖ) developed the "Austrian Nature Park Schools" model (Figure 10). Nature Park Kindergartens are based on

this concept and were developed with input from nature park experts and kindergarten educators. The first Nature Park Kindergarten was certified in 2014 [27].

Figure 10. Open-air classroom from ”Naturpark Purkersdorf,” Austria [27]

Since 2002, Austria has also had a National Government Award for Environmental Achievements in schools and educational institutions, serving as a motivational mechanism for promoting environmental education [apud 13, pp. 28-31].

In the Netherlands, under state supervision, a project for the protection of natural landscapes is underway. Additionally, the country is home to the „Institute of Education and Training for Environmental Protection”. In 2021, a free educational resource for children called ”A Rocha” was launched, featuring lessons on wildlife, climate, and faith. The lessons and accompanying eco-adventure story were written by Petra Crofton, a biologist and friend of A Rocha since 1998.This captivating and adventurous story revolves around a girl with strong environmental ideals who faces challenges. The educational program consists of 16 themed lessons, allowing children to learn about topics such as science, creation, and climate in a fun and interactive way. From bird migration to echolocation, from plastic soup to organic farming, to questions like „How serious is the climate crisis?”, „What does the Bible say about caring for creation?” and „What can we do ourselves?”, teachers can choose which topics to cover [11].

As a developing country, **Turkey** seeks to follow innovative global trends. To explore compatibility with the NAAEE guide, Turkey has joined early childhood environmental education programs, which methodologically approach so-called eco-kindergartens such as Nature Kindergartens and Forest Kindergartens, which are in development [16] (Figure 11). The ”Eco-Kindergartens on the Farm” project (2017–2019), coordinated by the Döşemealtı Municipality Ecological Crèche in Turkey, is an original and innovative initiative aimed at enhancing the abilities of educators and children to carry out more efficient agricultural activities. Seven countries are involved in this project — Romania, Italy, Estonia, Lithuania, Norway, and Portugal -with different experiences, knowledge, and beliefs, but united by common educational ideals. To achieve these goals, four main themes were selected, each with a dedicated workshop [7]: the four elements (Earth, Sun, Water, and Air) in nature; flowers and flower-visiting insects; our happy farm animals; we learn, grow, harvest, and eat.

Figure 11. Scenes from the ” Eco-Kindergartens on the Farm” [7]

Almost all aspects of the program were implemented outdoors. Growing vegetables and fruits, feeding animals, watering flowers, observing flower-visiting insects, and pollination helped most children to experience the sights, sounds, and smells of farm life. By cooking their harvest, children learned the importance of organic food and healthy eating. All project results are useful to policymakers and practitioners across Europe interested in alternative approaches [7].

India's curriculum in New Delhi divides preschoolers into three age groups: 3–4 years, 4–5 years, and 5–6 years. For the 3–4 age group, environmental activities include saving water, turning off the tap while brushing teeth, throwing trash in bins, and putting toys away after play (Figure 12).

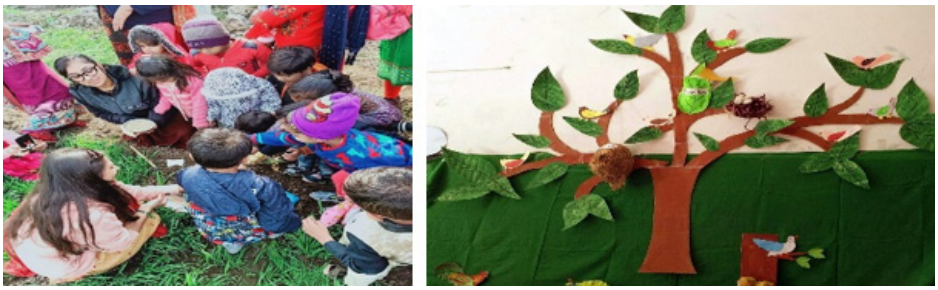

Figure 12. Promoting Sustainability at Aga Khan Kindergarten in Thorala, Rajkot, Gujarat [5] (winner of two awards from EducationWorld India for being the most nature-friendly)

At 4–5 years, preschoolers interact with the real world through projects involving exploration, problem-solving, asking questions, sharing and exchanging ideas, reflecting, and integrating new knowledge with existing skills. They also develop awareness of environmental concerns like saving water, watering plants, and turning off lights. At 5–6 years, children are encouraged to explore and observe their environment [26, pp. 19-43].

In **New Zealand**, Te Whāriki interprets the concept of curriculum broadly, including all experiences, activities, and events, both direct and indirect, that occur in the ECE (Early Childhood Education) setting. It offers a framework of principles, strands, goals, and learning outcomes that emphasize respect, reciprocal relationships, and responsiveness (Figure 13). Offering an inclusive curriculum involves adapting the environment and teaching methods by removing any barriers to participation and learning. Barriers may be physical (e.g., physical environment), social (e.g., practices limiting participation), or conceptual (beliefs limiting what is deemed suitable for certain children). The curriculum is described through principles, strands, goals, and learning outcomes (empowerment, holistic development, family and community, relationships) [30]:

- Empowerment – Every child experiences a curriculum that recognizes and enhances their mana and supports them in enhancing others' mana. From a Māori perspective, all children are born with inherited mana from their tīpuna. Mana is the power of being and must be upheld and strengthened. In an empowering environment, children are free to create and act independently, develop knowledge and skills in areas of interest, and increasingly make decisions about matters affecting them.
- Holistic Development – Human development can be viewed through cognitive, physical, emotional, spiritual, and socio-cultural dimensions, but these must be seen as holistic, interwoven, and interdependent. For Māori, the spiritual dimension is fundamental as it connects all other dimensions through time and space. A holistic approach sees the child as a whole person eager to learn, tasks as meaningful wholes, and the whole as more than the sum of its parts.
- Family and Community – Children learn and develop best when their culture, knowledge, and community are acknowledged and when the people in their lives help them make connections across environments.
- Relationships – Children learn through reciprocal relationships with others, places, and things.

The curriculum includes five goals: wellbeing, belonging, contribution, communication, and exploration. Alongside the above principles, these components form the framework for a holistic curriculum [30].

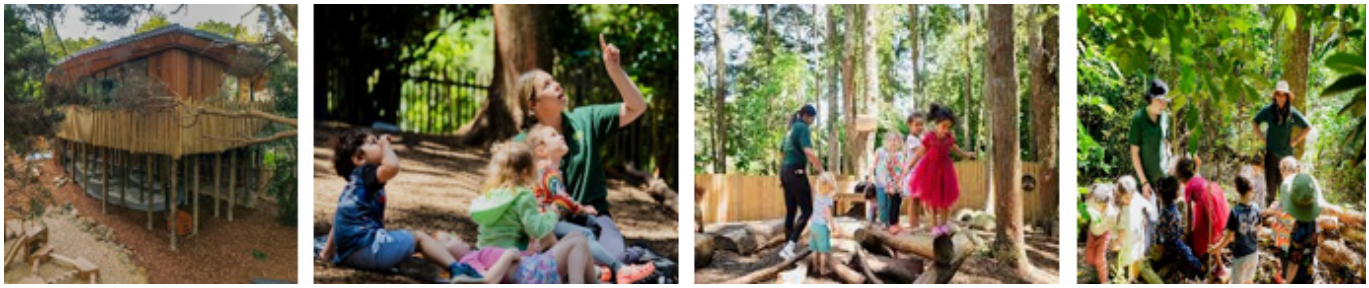

Figure 13. Gaia (Earth) Forest Preschool in Manurewa, Auckland, New Zealand, which combines early education with ecological and sustainable principles [12]

In conclusion, each country adopts a unique approach to early environmental education, reflecting specific cultural values, national priorities, and pedagogical strategies, yet all share a common commitment to cultivating environmental awareness and care from an early age. Generalizing the presented ideas, regardless of the methods used for environmental education, it is important to implement it at the humanity level, as it is a „process meant to attract groups of people who are aware of and concerned about environmental and complementary issues-people who have the knowledge, attitude, ability, motivation, and capacity to work individually and collectively to find solutions to current problems and prevent future ones”.

We believe that these environmental education programs can provide rich, nature-based direct experiences with multiple objectives, including fostering a basic appreciation for the natural world and supporting developmental benefits associated with nature exposure for young children. These programs can yield diverse benefits for children’s holistic development: *physical benefits* – such as increased activity and improved health; ***c**ognitive benefits* – improved executive function, development of intellectual mental processes, enhanced observation skills; ***social-emotional benefits*** – emotional regulation and improved social skills.

Bibliographical references:

1. *Barnehageloven*. *Lov om barnehager.* 2005. Disponibil: https://lovdata.no/dokument/NL/lov/ 2005-06-17-64 (accesat 5.03.2025)
2. BURKE, S. R. Approaches to Nature in Japanese Early Childhood Education. In: *International Journal of Early Childhood Environmental Education,* Nr. 2 (1), 76. North American Association for Environmental Education E-ISSN: 2331-0464, 21 p. Disponibil: https://naturalstart.org/sites/default/files/journal/9._final_japanese_early_childhood_education.pdf (accesat 24.05.2025)
3. Codul educației al Republicii Moldova, nr. 152 din 17.07.2014. În: Monitorul Oficial nr.319-324/ 634 din 24.10.2014, 68 p. Disponibil: https://usmf.md/wp-content/uploads/2013/08/ Codul-Educatiei.pdf (accesat 24.05.2025)
4. Concepţiei politicii de mediu a Republicii Moldova. Hotărâre Nr. HP605/2001 din 02.11.2001. Disponibil: https://www.legis.md/cautare/downloadpdf/58192 (accesat 24.05.2025)
5. Disposiciones generales Ministerio de Education y formation profesional. Boletin oficial del estado. 2022, 35 p. Disponibil: https://www.boe.es/eli/es/rd/2022/02/01/95/dof/spa/pdf (accesat 22.05.2025)
6. *Eco-Schools Early Year*. Disponibil: https://www.ecoschools.global/early-years (accesat 24.05.2025)
7. *Eco farm kindergartens.* In: ANS Danışmanlık. Disponibil: https://ansdanismanlik.com/en/ references/our-projects/eco-farm-kindergartens (accesat 24.05.2025)
8. *Education for sustainable development.* Disponibil: https://lfv.pl/en/education-for-sustainable-development/ (accesat 24.05.2025)
9. *Environmental education in Finland*. In: EcoEdHub. Environmental education resources for teachers. Disponibil: https://www.ecoedhub.com/environmental-education-in-finland.html (accesat 24.05.2025)
10. Environmental Nature Center. *The benefits of nature preschool education*. Disponibil: https://encenter.org/the-benefits-of-nature-preschool-education/ (accesat 22.05.2025)

11. Environmental education. Resources for Netherlands. In: *A Rocha International.* Disponibil: https://arocha.org/en/projects/eco-girl-netherlands/ (accesat 22.05.2025)
12. *Gaia (Earth) Forest preschool New Zealand.* Chrysaliscare Familly ECE Centre. Disponibil: https://www.chrysaliscare.co.nz/ centre/gaia-preschool-new-zealand/?centrepage=gallery
13. GÎNJU, S. *Educația ecologică în diverse țări ale lumii. Studiu comparativ*. În: Probleme ale științelor socioumanistice și Modernizării Învățământului. Materialele Conferinței științifice anuale profesorilor și cercetătorilor UPS "Ion Creangă": Seria XIX, volumul II. Chișinău: S. N. Tipogr. UPS "Ion Creangă", 2017. pp. 29-33. ISBN 978-9975-46-333-1.
14. Home - like community for growing. In: Kamu early education. Disponibil: https://www.kamueducation.fi/kamuhome-pitajanmaki (accesat 22.05.2025)
15. How to promote environmental awareness using the 7 areas of EYFS. In*: Early Years Resources*. 2024. Disponibil: https://www.earlyyearsresources.co.uk/blog/how-to-promote-environmental-awareness-using-the-7-areas-of-eyfs/ (accesat 22.05.2025)
16. IZADPANAH, S., PARVARESH, P., ŞEKERCI, Y. Evaluating the physical environment of ecological kindergarten based on the requirements of early environmental education: a case study in Döşemealtı, Antalya. In: 5*th International Conference on New Trends in Architecture and Interior Design*. Istanbul, 2019. pp. 132-140. ISBN 978-605-66506-7-3.
17. Kunnskapsdepartementet. Rammeplan for barnehagen. Oslo: Utdanningsdirektoratet. Helsinki's curriculum for early childhood education, 2017. p. 47-48. Disponibil: https://www.ipcc.ch/sr15/download/ (accesat 14.05.2025)
18. Legea învățământului, nr. 547 din 21.07.95 Monitorul Oficial al R. Moldova, nr.62-63/692 din 09.11.1995, 33 p. Disponibil: https://edu.asm.md/sites/default/files/pictures/Legea%20 invatamantului.pdf (accesat 24.05.2025)
19. Legea educației naționale nr. 1/2011, Monitorul Oficial, Partea I nr. 18 din 10.01.2011. Disponibil: https://www.edu.ro/sites/default/files/legea-educatiei_actualizata%20august%202018.pdf (accesat 24.05.2025)
20. Mamiina. *The growth of Forest Schools: Nature-based early childhood education*. 2023. Disponibil: https://mamiina.co.uk/the-growth-of-forest-schools-nature-based-early-childhood -education/ (accesat 24.05.2025)
21. MELIS, C. Norwegian Kindergarten Children's Knowledge about the Environmental Component of Sustainable Development. Disponibil: https://www.mdpi.com/2071-1050/12/19/8037 (accesat 14.05.2025)
22. MOSER, T., MARTINSEN, M. T. The outdoor environment in Norwegian kindergartens as pedagogical space for toddlers' play, learning and development. In: Eur. Early Child. Educ. Res. J. 2010, p. 18.
23. *Nordtvet Farm Kindergarten*. Disponibil: https://www.archdaily.com/989265/nordtvet-farm-kindergarten-morfeus-arkitekter (accesat 22.05.2025)
24. PALL, K. Gardening with children: exploring preschoolers' attitudes and behaviour towards the environment and the use of a preschool garden. In: *Centre for Research in Early Childhood, University of Plymouth*. Disponibil: https://www.crec.co.uk/becera-posts/gardening-with-children-exploring-preschoolers-attitudes-and-behaviour-towards-the-environment-and-the-use-of-a-preschool-garden (accesat 22.05.2025)
25. SAMUELSSON, I., KAGA, Y. *The contribution of early childhood education to a sustainable society.* UNESCO, 2018. Disponibil: https://unesdoc.unesco.org/ark:/48223/pf0000159355 (accesat 14.04.2025)
26. SHARMA, A. Environmental Education in Early Childhood in India: Challenges and Opportunities. In: *Journal of Environmental Education Research*, 2017. pp.19-43
27. Shaping the future now the nature park schools and kindergarten. Case study. In*: Europarc Federation*. Disponibil: https://www.europarc.org/case-studies/shaping-the-future-now-the-nature-park-schools-and-kindergartens/ (accesat 22.05.2025)
28. *Strategia Națională privind Educația pentru mediu și schimbări climatice 2023-2030*. 44 p. Disponibil: https://www.edu.ro/sites/default/files/SNEM.pdf (accesat 24.05.2025)
29. Strategiei de dezvoltare „Educația 2030". Disponibil: https://mecc.gov.md/sites/default/files/strategia _22 _11_2022.docx (accesat 24.05.2025)
30. Te-Whāriki. *Early childhood curriculum*. 2017, 72 p. ISBN 978-0-478-16926-3.
31. TRUFAȘU, V. *Grădinița verde, locul unde preșcolarii învață în natură. Lecțiile sunt predate alături de animale și plante.* 2023. Disponibil: https://adevarul.ro/stiri-interne/educatie/ gradinita-verde-locul-unde-prescolarii-invata-in-2233821.html (accesat 24.05.2025)

32. *Wonki – grădinița modernă din Chișinău care ridică educația la nivel de artă.* 2022. Disponibil: https://protv.md/articol-comercial/wonki-gradinita-moderna-din-chisinau-care-ridica-educatia-la-nivel-de-arta-foto---2619574.html (accesat 24.05.2025)

Data about authors:
Georgiana BOLTAȘU (STOICA), PhD student, „Ion Creangă” State Pedagogical University of Chisinau.
ORCID: 0000-0002-9791-353X
E-mail: georgianastoica90@yahoo.com

Lidia COJOCARI, PhD, Associate Professor, „Ion Creangă” State Pedagogical University of Chisinau.
ORCID: 0000-0001-8238-9627
E-mail: cojocari.lidia@upsc.md

Presented: 20.09.2025