



環境省

Ministry of the Environment

Environmental Education and ESD for Net-Zero Green Living in Japan

GEEP-APRC 2023 International Environmental
Education Workshop

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International Movements Related to Environmental Issues (1)



- Paris agreement (2015) set its goal of limiting global warming to well below 2 °C, pursuing efforts to limit the temperature increase to 1.5°C
- “Climate-related risks for natural and human systems are higher for global warming of 1.5°C than at present, but lower than at 2°C” (IPCC, 2018, Special Report: Global Warming of 1.5°C)
- Achieving 1.5°C goal requires global net anthropogenic CO₂ emissions to reach net zero around 2050. (IPCC, 2018)
- COP27 reiterates that the impacts of climate change will be much lower at the temperature increase of 1.5 °C compared with 2 °C and resolves to pursue further efforts to limit the temperature increase to 1.5 °C. (COP27, 2022, Sharm el-Sheikh Implementation Plan)



2021.11 世界リーダーズ・サミット (11/1-2、英国)



2022.11 COP27 (11/6-20、エジプト)₂

International Movements Related to Environmental Issues (2)



2 years



10 years



Risk categories | Economic | Environmental | Geopolitical | Societal | Technological

- The World Economic Forum has published an annual report of “The Global Risks Report 2023” Jan 11th, 2023.
- The report presents the results of the latest Global Risks Perception Survey.
- Left charts are the result of a survey with a question of;
"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period"

(Source) World Economic Forum, 2023, Global Risks Perception Survey

Key Initiatives of the Ministry of the Environment Japan (1)

Decarbonization

46 %
reduction

Reduce greenhouse gas emissions by 46% from FY 2013 level, and continue strenuous efforts in its challenge to meet the lofty goal of cutting its emissions by 50%

Exemplary action

Create at least 100 decarbonization leading areas

Harmony with nature

30 by **30**

Conserve at least 30% of land and sea

Exemplary action



Expand protected areas such as national parks and improve quality of management

Certify at least 100 sites where biodiversity conservation is being promoted through private-sector initiatives by the end of 2023

Resource recycling

At least **80** trillion yen

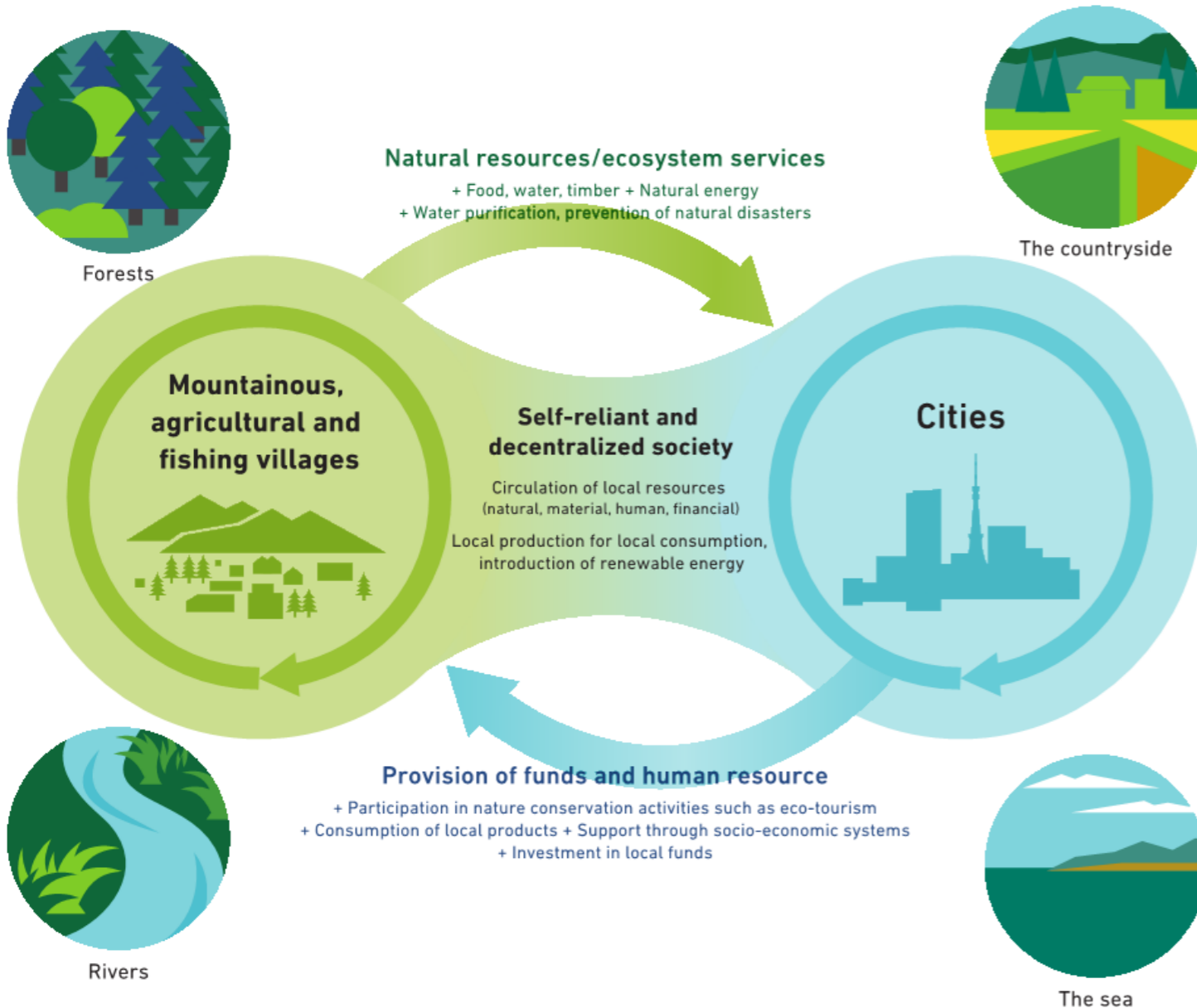
Aim for a market size of 80 trillion yen or more for businesses related to circular economy

Exemplary action

Halve the amount of food loss and waste compared to FY 2000

Key Initiatives of the Ministry of the Environment Japan (2)

Conceptual Illustration of Circular and Ecological Economy



The concept of a “**Circular and Ecological Economy**” is based on the idea that each region should maximize its vitality by;

- Forming a self-reliant and decentralized society
- Making maximum use of local resources such as renewable energy and beauty of landscape,
- Complementing each other with such resources according to geographic characteristics

History of Environmental Education/ESD in Japan



History of Environmental Education

1970s -

Problems of pollution caused by economic growth



More active pollution education, nature experience learning, etc.

<Pollution education was specified in MEXT's curriculum guidelines in 1971>



1990s -

ESD (Education for Sustainable Development)

- Education not only at schools but at home and many other places
- Education to develop the ability to act voluntarily and the relationship between people and society
- Emphasis on collaboration between corporations, NGOs, and other entities that are crucial to society

Institutionalization of Environmental Education

International

1992

United Nations Conference on Environment and Development (Rio Summit)

The importance of education to achieve "Sustainable Development" was confirmed.

2002

World Summit on Sustainable Development (Johannesburg Summit)

Japan proposed Decade of Education for Sustainable Development (ESD).

2014

ESD UNESCO World Conference

As the successor program to the UN Decade of ESD, the Global Action Program (GAP) was launched, and the Aichi Nagoya Declaration was adopted.

2019

The 40th UNESCO General Conference and the 74th UN General Assembly

Building on the experience with GAP, "ESD for 2030"—a new ESD promotion framework—was adopted.

2021

UNESCO World Conference on ESD

The Berlin Declaration launched ESD for 2030 on a major scale.

Domestic

1993

Basic Environment Law

Article 25 stipulates the promotion of Environmental Education, etc.

2003

Environmental Education Promotion Law

It specifies the promotion of environmental education, the provision of information, the principles and policy, and human resource development to raise the understanding of and motivation for environmental conservation.

2011

Revised Environmental Education Promotion Law

The principles of ESD were further clarified and improving the certification system, etc., which helps develop practical and a wide range of human resources who will voluntarily implement environmental education at home, at work, in the community, and many other places.

2016

ESD National Implementation Plan

Approved at a conference of relevant ministries and agencies. It specifies the policy in line with GAP's five priority areas.

2021

The 2nd ESD National Implementation Plan

- Building on the concept of ESD for 2030, it clarifies for the first time the idea that ESD contributes to achieving SDGs.
- It describes initiatives for all the stakeholders in Japan to implement in each of the five priority areas acknowledged in "ESD for 2030."

Environmental education promotion based on the Revised Environmental Education Promotion Law and education-related laws

Laws

- Basic Environment Law (November 1993)
Article 25 specifies the promotion of environmental education.
- Environmental Education Promotion Law (July 2003)
→ Revised Environmental Education Promotion Law (June 2011)

Policy/Plan

- **Basic Policy** on Environmental Education Promotion Law (approved in June 2012 and revised in June 2018)

[Future directions of education]

- It is important to foster the motivation to voluntarily participate in building a sustainable society in addition to fostering environmental social norms in everyday life.
- It is important to foster the well-rounded development of emotional intelligence, behaviors, motivation and sensitivity as well as knowledge and cognitive capabilities.
- The perspective of connecting beyond generations, organizations, regions, and disciplines is important (communication between urban and rural areas, learning from different generations, etc.).

Reframe the meaning of **experience activities** and make full use of Places for **Experience Activities** that local communities and corporations operate.

Public administration on education

- New National Curriculum Guidelines for elementary and junior high schools were announced in March 2017. The provisions specify that schools should educate each student to be **a contributor in building a sustainable society**.
- * National Curriculum Guidelines are standards set by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) for creating curricula. **They enable educators to create their curricula in accordance with the School Education Act, etc. and for students to receive a certain level of education regardless of their school's location in Japan.**



Each subject contains the concept of building a sustainable society; environmental education is often taught in “Period for integrated studies” (elementary and junior high schools) and “Period for inquiry-based cross-Disciplinary study” (senior high schools).

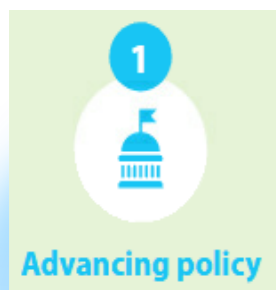
- The Improvement of Education on Global Environmental Issues Including Climate Change statement was released in June 2021. The statement was co-signed by MOE and MEXT and addressed to all the boards of education in Japan.

The Second ESD National Implementation Plan (May 2021)

- Relevant ministries and agencies collaborated to develop the ESD National Implementation Plan.
- Building on the concept of ESD for 2030, it clarifies for the first time the idea that ESD contributes to achieving SDGs. It states that educators should foster people to be contributors in building a sustainable society while taking into account gender equality, being carbon neutral by 2050, AI/DX promotion, etc.
- It describes various ways to involve stakeholders to realize ESD as well as initiatives for each stakeholder in Japan to implement in each of the five priority areas acknowledged in ESD for 2030.



● Specific initiatives for each stakeholder to implement in each of the five priority action areas



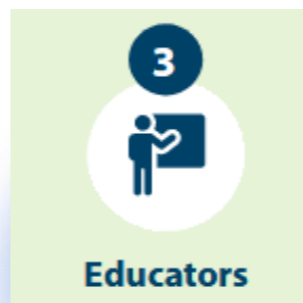
1. Advancing policies

- Integrating ESD in SDG-related policies
- Positioning ESD in education policies
- Specifying the implementation of ESD in policies related to global issues



2. Transforming learning environments

- Practicing ESD based on the curriculum guidelines
- Enhancing the educational environment with ICT
- Specifying the formation and improvement of networks to advance a comprehensive approach between agencies



3. Building capacities of educators

- Training, etc. for teachers, etc.
- Creating/utilizing guidelines for promoting ESD
- Specifying the training of educators who practice ESD at each organization



4. Empowering and mobilizing youth

- Creating peer-to-peer communities for youths
- Creating the environment to facilitate the participation of youths in international discussions
- Specifying the promotion of interaction among youths, etc.



5. Accelerating local level actions

- Leveraging ESD to promote local SDGs
- Specifying use of the networking function for supporting ESD across the nation

MEXT's Environmental Education and Environmental Learning-related measures



Improvement and enhancement of educational content

■ Enhancement of Environment-related Content in National Curriculum Guidelines

Enhanced content on environmental education, focusing on social studies, science, technology, home economics, and other related subjects, etc.

Promotion and dissemination of good practices

■ Dissemination of Environmental Education Practices

In cooperation with MOEJ, conduct training for teachers and other leaders of environmental education and environmental learning.

■ Project to promote experiential activities for healthy growth

Promote efforts to nurture students' rich humanity and social skills through various experiential activities in agricultural, mountainous, and fishing villages, etc., for the purpose of their healthy growth, etc.

Promote the construction of school facilities that take the environment into consideration ("Eco-Schools").

■ Promote the construction of school facilities that take the environment into consideration ("Eco-Schools").

Support the development of Eco-Schools that reduce environmental impact and can be used as teaching materials for Environmental Education.

Promote Environmental Education in Local Communities

■ Consumer and Environmental Education Promotion Project for the realization of a sustainable society

To promote Consumer and Environmental Education for the realization of sustainable local communities by supporting local efforts and raising awareness in each region.

Promote youth experiential activities related to the environment

■ Project to support youth self-reliance through experiential activities, etc.

In order to enhance opportunities for youth to engage in actual experiential activities, MEXT will promote the dissemination of information on experiential activities, conduct surveys and research, award programs for excellent activities conducted by private companies, and implement model nature experience activity programs. In addition, by building a system to promote cooperation between local communities, companies, and educational institutions, society as a whole will further promote support for youth self-reliance through experiential activities.

■ Training leaders and providing opportunities and venues for experiential activities at National Youth Education Facilities, etc.

At national Youth Education Facilities (28 facilities nationwide), train leaders to support youth's experiential activities, provide opportunities and venues for experiential activities, and subsidize youth's experiential activities conducted by private organizations.

Promote ESD

■ UNESCO Future Co-Creation Platform Project

In order to revitalize UNESCO activities, develop a system to strategically improve the network of UNESCO activity centers in Japan, disseminate the results of activities both domestically and internationally, and promote the back and forth between domestic UNESCO activities and the results of international cooperation in an integrated manner.

■ ESD Promotion Project

In light of the further increase in domestic and international needs for the promotion of ESD, strategic support will be provided for outstanding efforts to improve the qualities and abilities necessary for those who will be responsible for achieving the SDGs.

ESD is promoted at all levels of educational institutions, and the National Curriculum Guidelines and the Fourth Basic Plan for the Promotion of Education also state the objective of ESD as "fostering individuals who can create a sustainable society".

Fourth Basic Plan for the Promotion of Education (June 2023)

II. Basic Policy on Future Education Strategies

- **Fostering human resources who continue to learn toward the sustainable development of a globalizing society (promotion of ESD that contributes to the development of individuals who can create a sustainable society)**
 - ESD, which contributes to the realization of the SDGs, is an education that enables students to proactively view the various global-scale issues of modern society as problems that affect them, to acquire the ability to think and act on their own toward solutions, and to bring about changes in new values, behaviors, etc.
 - The promotion of ESD is also an initiative that contributes to the development of global human resources, and many children and students should be given the opportunity to experience a global environment.

IV. Education Policy Goals and Basic Policies for the Next Five Years

〈Goal 6: Foster an attitude of proactive participation in the development of society and a normative consciousness〉

- **Promote ESD**
 - Japan will continue to enhance activities such as exchanges among schools in Japan and abroad and the dissemination of good practices, centering on UNESCO Schools, which are positioned as centers for the promotion of ESD. In addition, based on the National Curriculum Guidelines, each school level will nurture "fostering individuals who can create a sustainable society" which is the purpose of ESD.
 - Based on the philosophy of "ESD for 2030," which aims to build a fairer and more sustainable world by strengthening ESD and contributing to the realization of all 17 SDGs, reinforce a multilayered network connecting diverse local stakeholders (schools, school boards, universities, businesses, NPOs, social education facilities, etc.).

Environmental Contents in National Curriculum Guidelines



In each National Curriculum Guidelines, it is clearly stated that schools of the future are required to enable students to become "fostering individuals who can create a sustainable society. The "qualities and abilities required in response to contemporary issues," such as "the ability to create a sustainable society in the context of the natural environment and the finite nature of resources," are to be developed from a cross-curricular perspective, not only in specific subject areas, but also in the context of school education as a whole, in accordance with the characteristics of each subject area.

Examples of Major Statements in the General Provisions in the National Curriculum Guidelines

General Provisions	<ul style="list-style-type: none"> ■ Role of Education and Curriculum: The goal is to nurture a zest for living in students who are expected to be abundantly creative and fostering individuals who can create a sustainable society.
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Examples of Major Descriptions of Subjects in the National Curriculum Guidelines (Elementary School)

Science	<ul style="list-style-type: none"> ■ Understand that all living creatures live in relation to their surrounding environment through water and air. ■ To incorporate many outdoor and experiential activities to familiarize students with local nature, and to cultivate an attitude of respect for life and contribution to the preservation of the natural environment.
Social Studies	<ul style="list-style-type: none"> ■ Capture the location, natural environment, historical background of people's activities and industries, and local conditions of the featured area, and consider and express those features.

Examples of Major Descriptions of Each Subject in the National Curriculum Guidelines (Junior High School)

Science	<ul style="list-style-type: none"> ■ Learn that humans obtain energy from hydroelectric, thermal, nuclear, solar, and other sources, and recognize the importance of effective use of energy resources. ■ Recognize the importance of creating a sustainable society through scientific consideration of the conservation of the natural environment and the use of science and technology. ■ Investigate the natural environment around them and understand that various factors affect the balance of the natural world, and recognize the importance of preserving the natural environment. Climate change and biodiversity will also be covered.
Social Studies	<ul style="list-style-type: none"> ■ Geographical: To understand the characteristics of Japan's resources, energy, and industries based on the current state of resource and energy use in Japan and issues related to the environment and energy.
Home Economics	<ul style="list-style-type: none"> ■ To be able to find problems in one's own consumer life, set issues, think about environmentally conscious consumer life in order to solve them, and make plans and put them into practice.

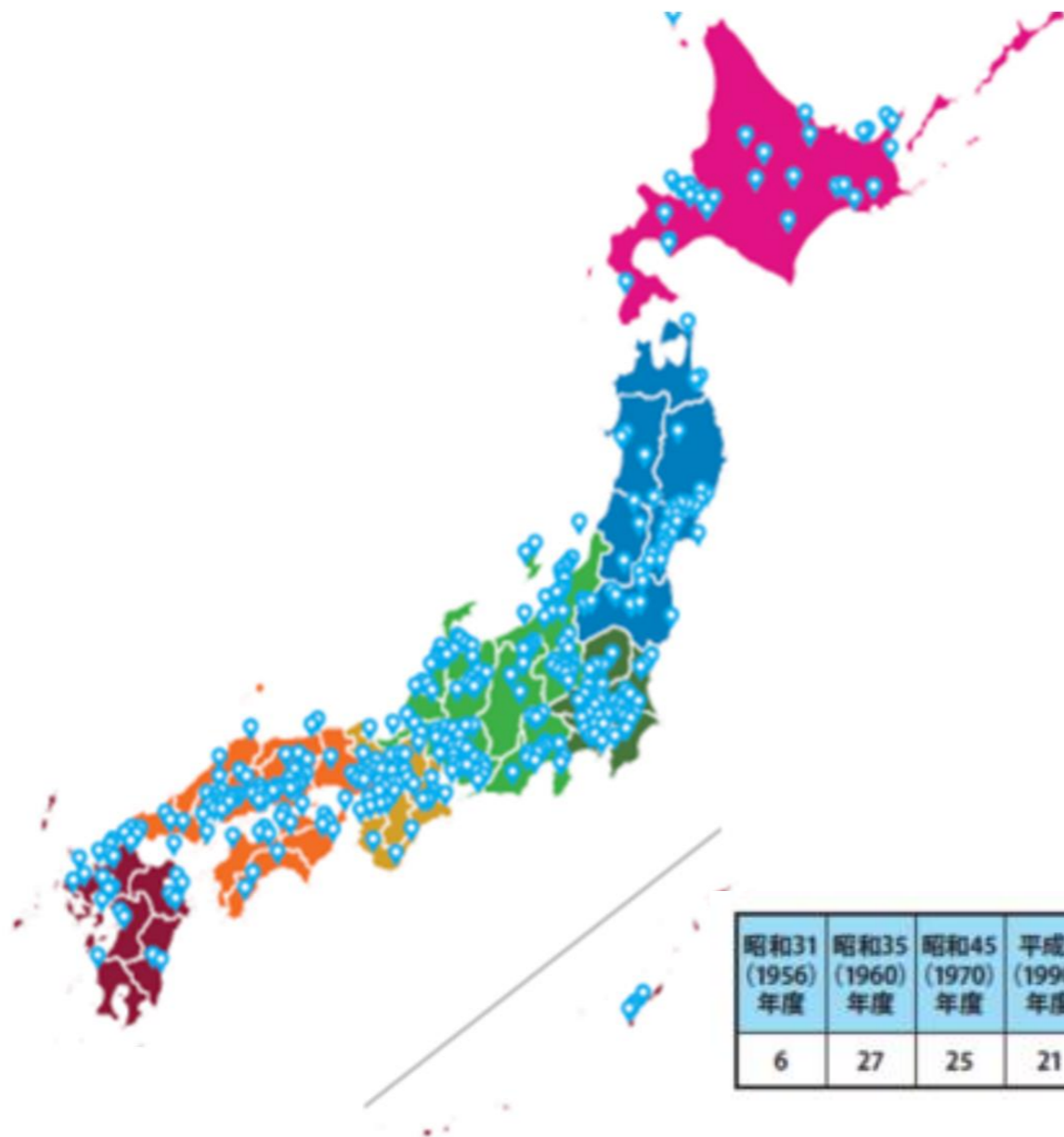
Examples of Major Descriptions of Subjects in the National Curriculum Guidelines (Senior High School)

Science	<ul style="list-style-type: none"> ■ Basic Biology: To recognize the importance of ecological balance and conservation of ecosystems. ■ Basic Earth Science: Based on materials related to the global natural environment, to discover changes in the global environment and understand their mechanisms, as well as to recognize the relationship between these phenomena and human life.
Social Studies	<ul style="list-style-type: none"> ■ Geography: To understand the necessity of international cooperation and efforts by each country to realize a sustainable society in order to solve global issues, based on global environmental problems, resource and energy problems, population and food problems, and housing and urban problems found in various parts of the world.
Integrated Studies	<ul style="list-style-type: none"> ■ The theme of inquiry should be set in accordance with the actual conditions of the region and school, and the characteristics of the students, for example, based on cross-cutting and comprehensive issues corresponding to contemporary issues of international understanding, the environment, and welfare and health.

UNESCO Schools as ESD Promotion Centres



Number of UNESCO Schools (UNESCO School Candidates)

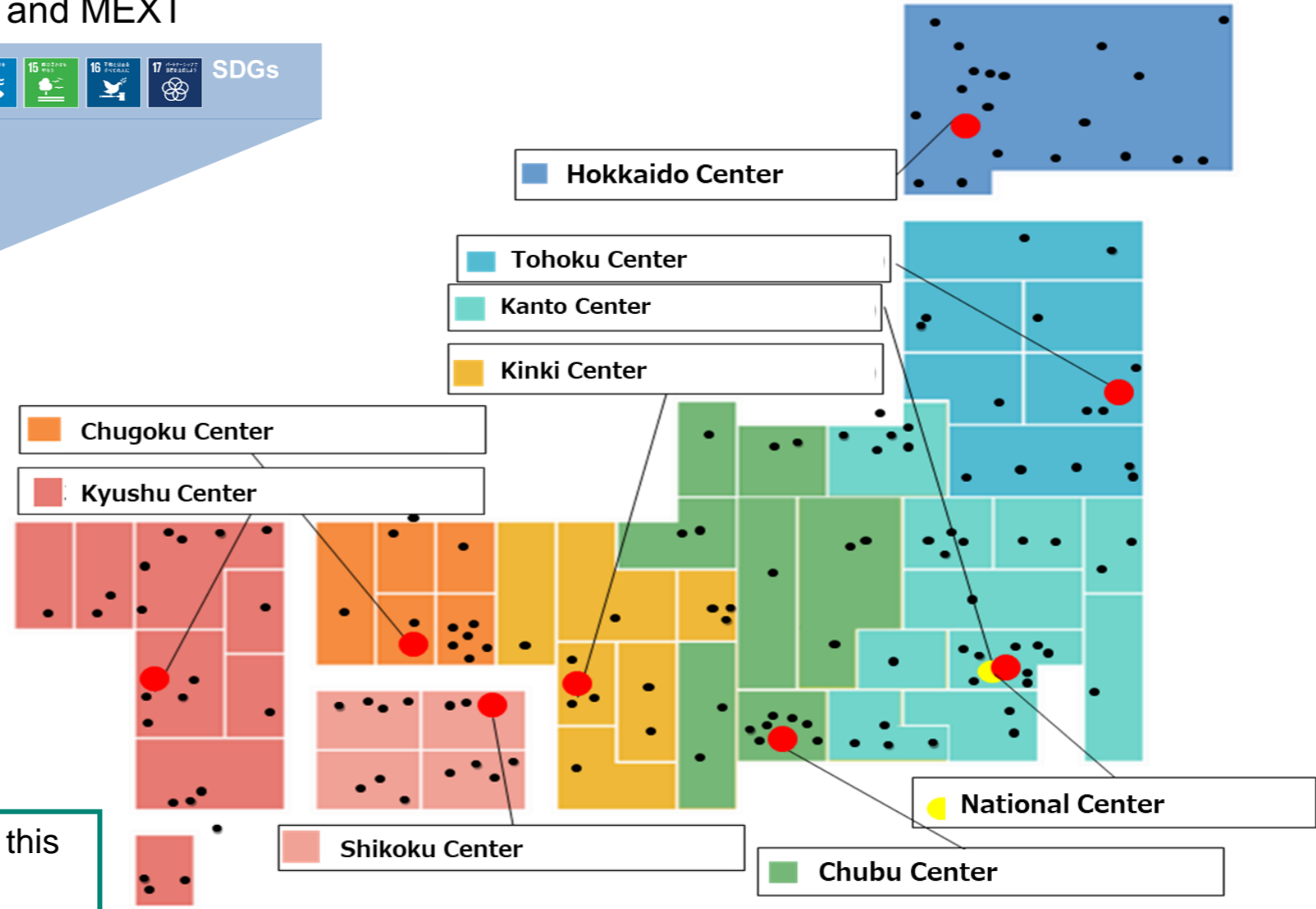
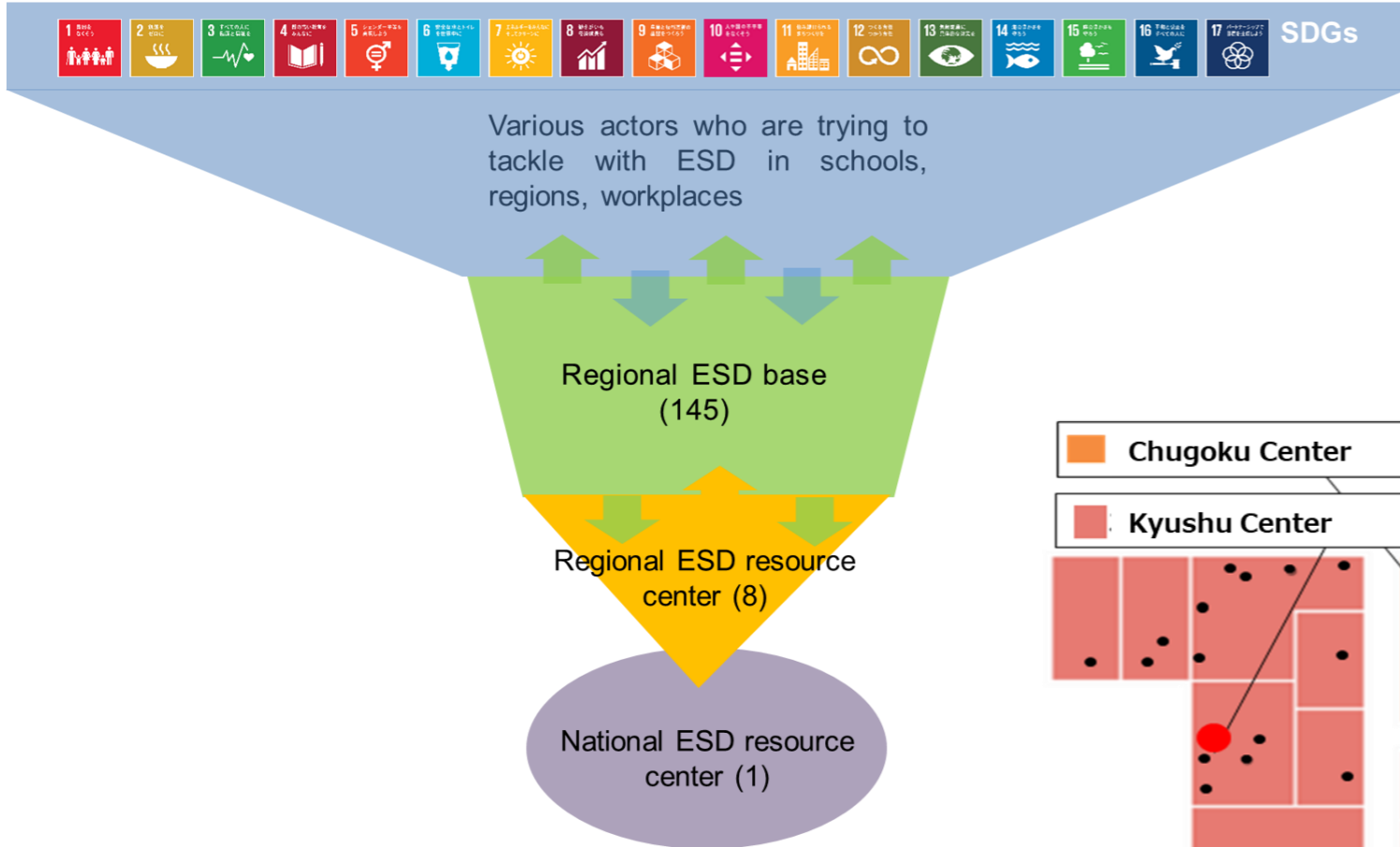


- Schools that practice peace and international collaboration in order to realize the ideals of UNESCO, for which UNESCO grants membership approval.
- Currently, there are more than 12,000 schools in 182 countries and regions worldwide.
- The number of member schools in Japan is 1,115 (as of March 2023), the largest number in the world.

昭和31 (1956) 年度	昭和35 (1960) 年度	昭和45 (1970) 年度	平成2 (1990) 年度	平成12 (2000) 年度	平成17 (2005) 年度	平成19 (2007) 年度	平成20 (2008) 年度	平成21 (2009) 年度	平成22 (2010) 年度	平成23 (2011) 年度	平成24 (2012) 年度	平成25 (2013) 年度	平成26 (2014) 年度	平成27 (2015) 年度	平成28 (2016) 年度	平成29 (2017) 年度	平成30 (2018) 年度	令和元 (2019) 年度	令和4 (2022) 年度
6	27	25	21	20	16	24	78	152	277	367	550	705	913	939	1008	1033	1116	1120	1115

ESD networks by local multi-stakeholders

Running ESD centers co-organizing by MOEJ and MEXT

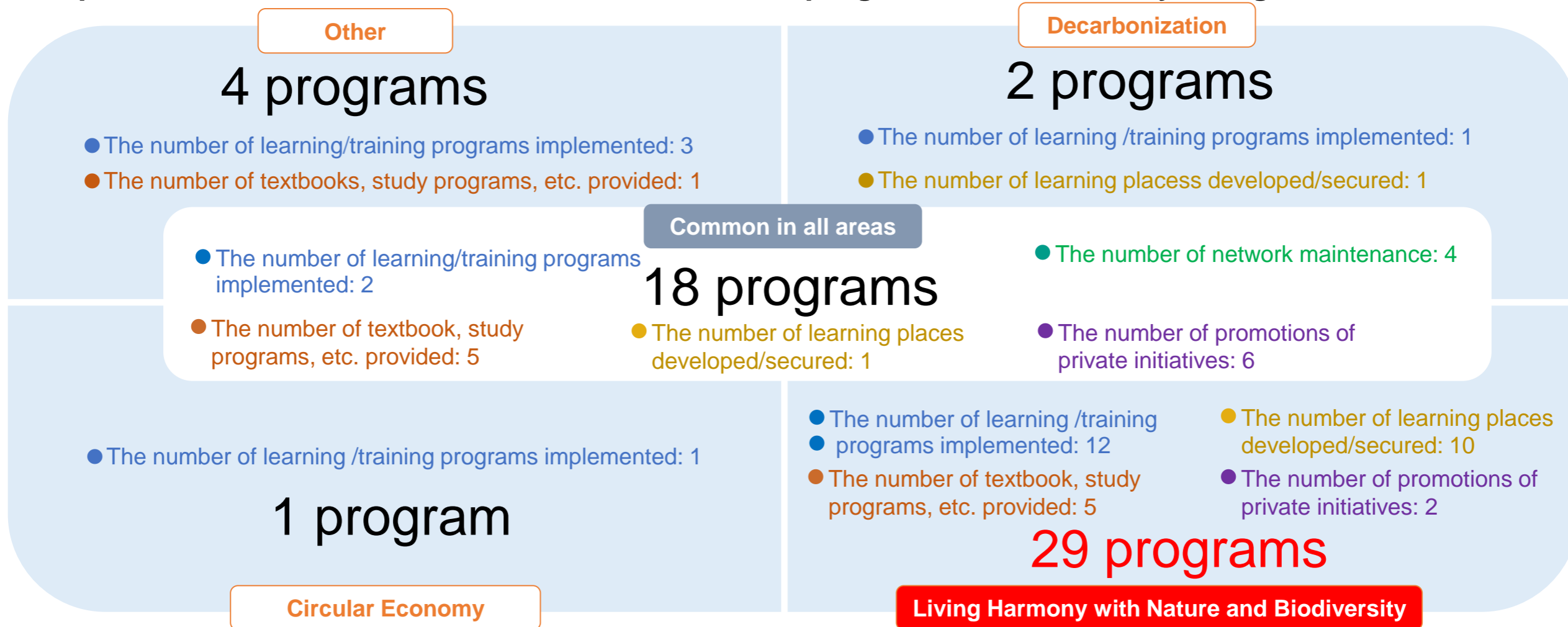


Develop a nationwide network for ESD promotion, and use this network to promote environmental education through collaboration across regions, disciplines, and generations, fostering values and encouraging behavior change toward the realization of local decarbonization.

National initiatives in accordance with the Act of EE

There are many nature experience programs available for the environmental education of elementary to senior high school students

● Implementation status of environmental education programs for elementary to high school students

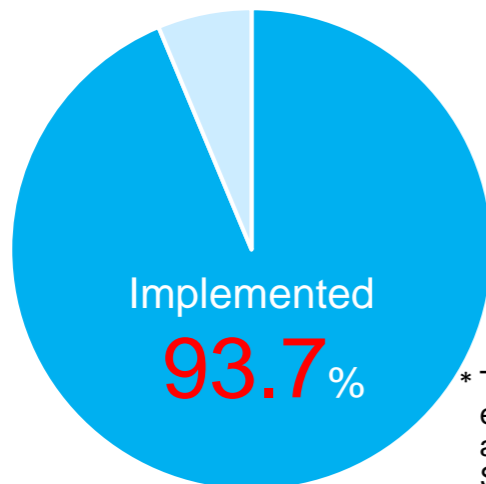


* The above diagram was created based on the implementation status (FY2020) in MOE, MEXT, MAFF, METI, and MLIT, all of which are in charge of the Revised Environmental Education Promotion Law. The implementations were in accordance with the basic policy of the aforementioned law. 15

Nature experience learning being emphasized and practiced at schools

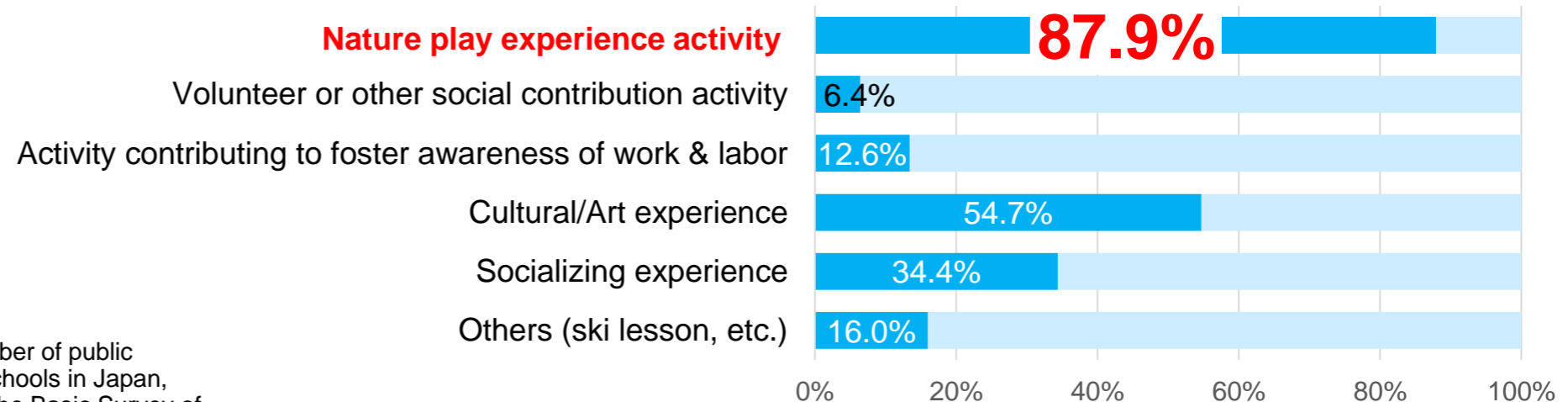
- School Education Act, Chapter 2, Article 21-2: **Promote nature experience activities** at schools (compulsory education) as well as foster the spirit of respecting life and nature and wanting to contribute to environmental conservation.
- The status of implementing overnight experience activities at elementary schools: 93.7% of elementary schools implement overnight experience activities, and 87.9% of those are nature experience activities.

● The percentage of schools (out of all public elementary schools*) that implemented overnight experience activities



* The total number of public elementary schools in Japan, according to the Basic Survey of Schools (FY2013), is 20,836.

● Activity details
(The percentage of public elementary schools in Japan that implemented experience activities) (Multiple answers allowed)

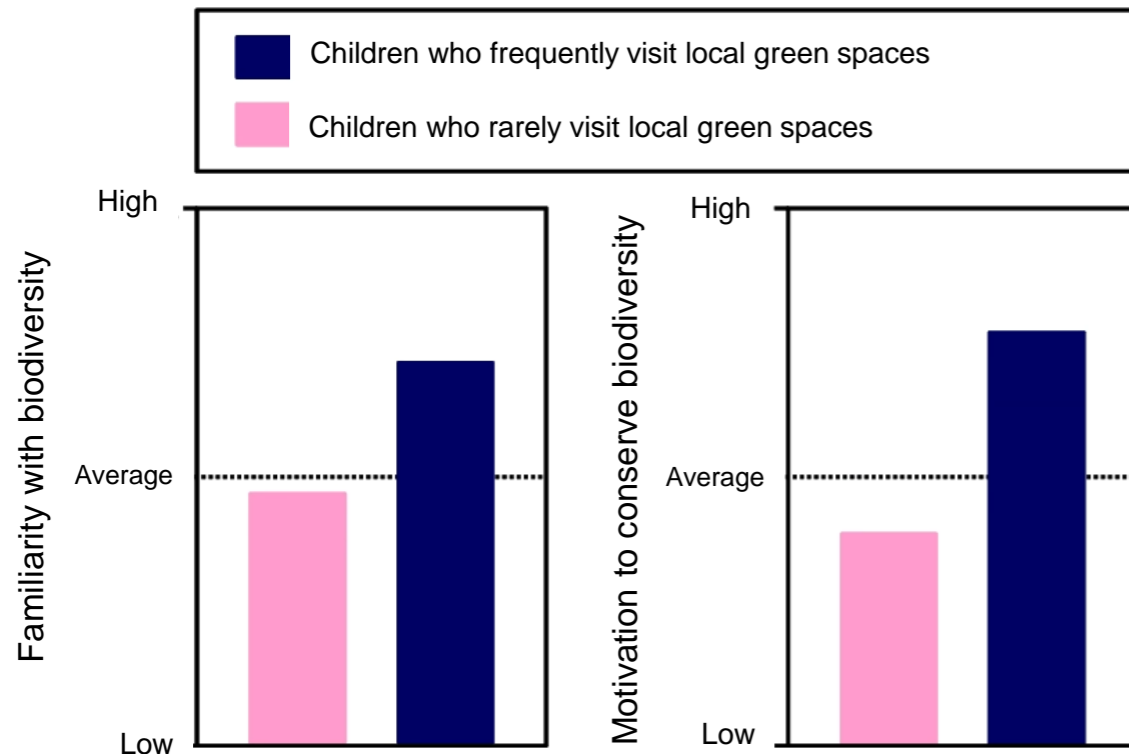


The above chart was created based on Chart 1-2-6 in MEXT's FY2016 White Paper 16

Effects of Experiencing Nature during Childhood

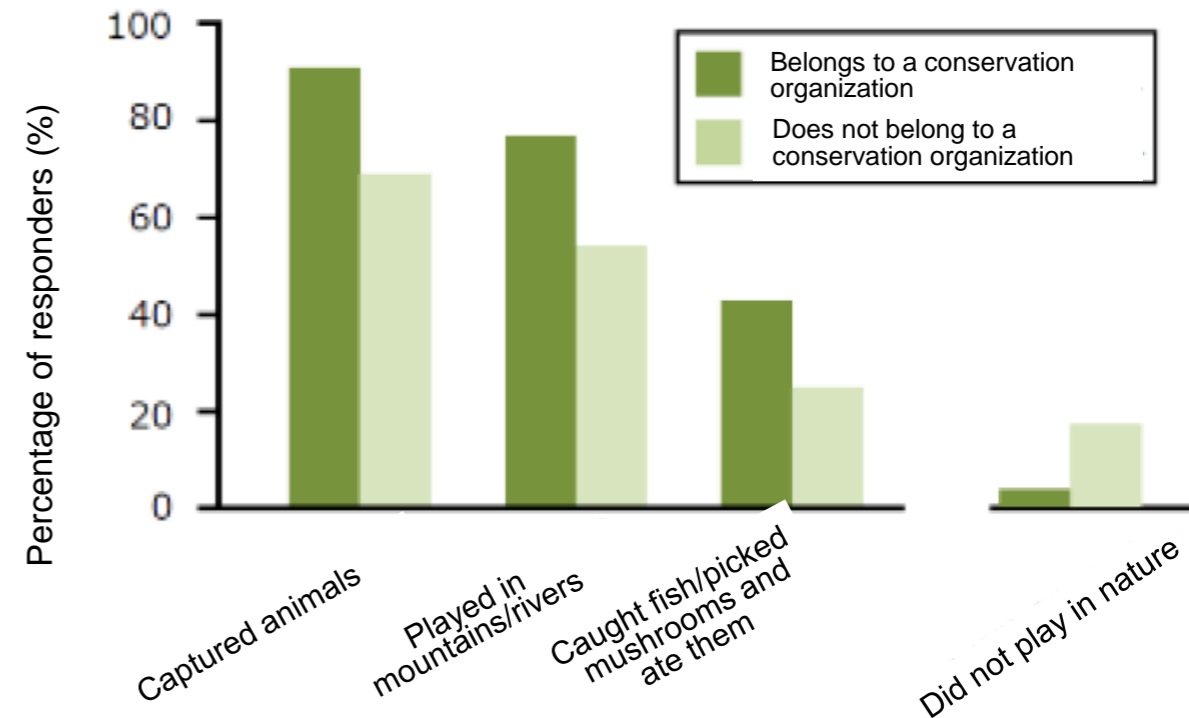
- Experiencing nature increases an individual's motivation to conserve biodiversity.
- Understanding the importance of caring about biodiversity impacts positively on an individual's behavior toward the conservation of biodiversity.

- The relationship between the frequency of nature experiences and conservation motivation



Source: *Experiencing nature regularly increases children's willingness to conserve biodiversity* (2016) by Masashi Soga and others

- The relationship between playing in nature and participation in conservation organizations



Source: *Questionnaire on awareness and behavior toward nature conservation* by the National Institute for Environmental Studies/Nature Conservation Society of Japan (Oct. and Nov. 2014) 17

The Places for Experience Activities Certification System

The Places for Experience Activities certification system based on the Revised Environmental Education Promotion Law provides high-quality programs that meet safety standards

Places for Experience Activities certification system

Owners of land or buildings that are used to offer nature, social, or other experience activities may apply for **Places for Experience Activities** certification, which is granted by the prefectural governor, etc.

- The number of locations certified as Places for Experience Activities: **27** (as of September 2022)
- The annual number of users: **16,557** (FY2020)
* 26,715 people in FY2019 (pre-pandemic)



The implementation of teacher training for environmental education and education promotion leaders—a human resource development program aiming to foster leaders in the practice and promotion of environmental education at schools and in local communities—is done in collaboration with MOE and MEXT

The program offers two courses with differing objectives:

Curriculum Design Course

- Objective: improve the practical skills of curriculum management, etc. at schools

Program Design Course

- Objective: improve the practical skills of experience activities for environmental education
- Contents: Visit corporations and organizations that offer experience activities (eight locations throughout Japan provide experience activities) to learn how to **practice** and plan experience activities for environmental education and ESD, as well as key points on how to encourage changes in adults' and children's behaviors and mindsets.

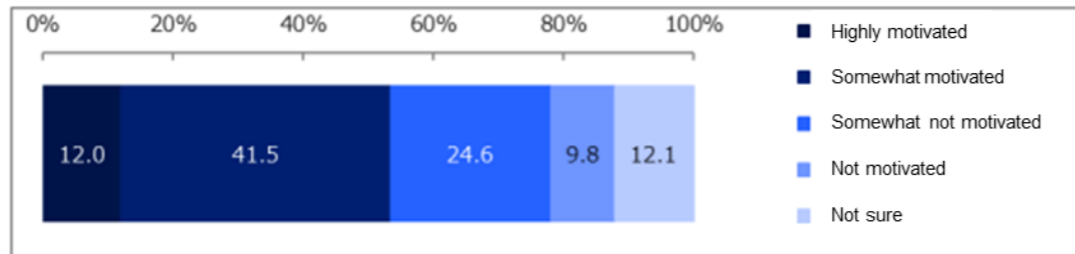


Challenges in promoting Environmental Education (Schools)

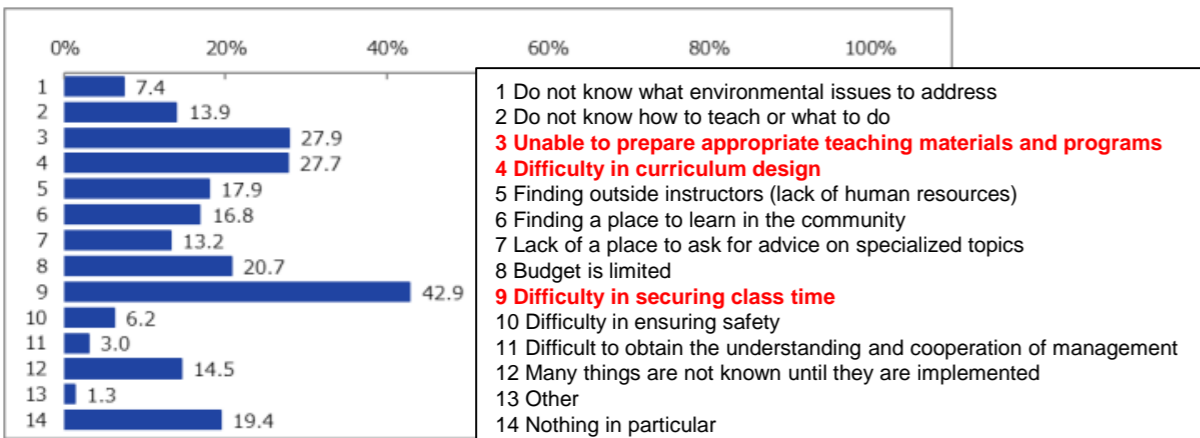
- According to the National Curriculum Guidelines, Environmental Education is positioned as a cross-curricular educational content related to various contemporary issues, and some schools are implementing environmental education in conjunction with science, social studies, and other subjects based on "Integrated Studies".
- Many teachers feel that they are not sufficiently engaged in Environmental Education due to difficulties in finding class time and creating curriculum.

Q2 How motivated are you to implement ESD and Environmental Education?

About half of the respondents selected "highly motivated" and "somewhat motivated."

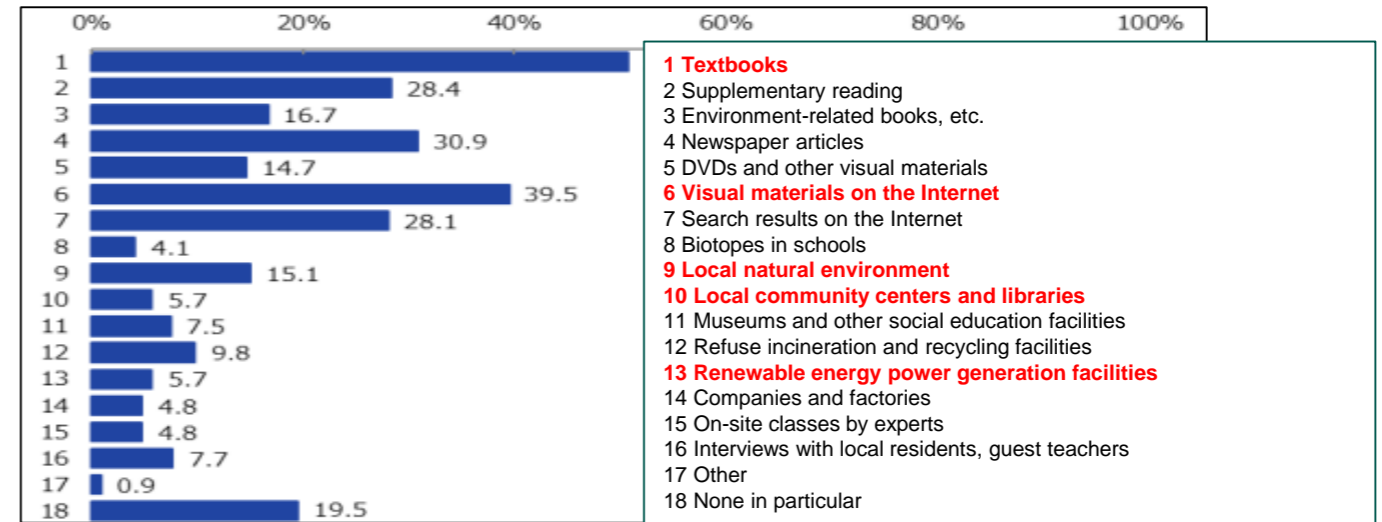


Q13 What are some of the challenges you face in implementing Environmental Education in your classroom or school activities? (Multiple answers)



Q4 What do you use to conduct Environmental Education? (Multiple answers)

- ◆ "Textbooks" was the most common, followed by "visual materials on the Internet".
- ◆ "Local natural environment" was selected by only 15.1 percent of the respondents.



Q5 Do you cooperate or collaborate with local communities, NPOs, businesses, etc. when conducting Environmental Education?

About half responded that there is no specific collaboration.

Continuous cooperation/cooperation: 7.6%, One-off cooperation: 12.1%, Information only: 4.7%, No specific cooperation but they understand: 14.2%, No cooperation: 47.2%, Not sure: 14.2%

Challenges in promoting Environmental Education (Schools)



- According to the "Survey of Teachers' Working Conditions (FY2022)," the working hours of teachers decreased compared to the previous survey (FY2016), both on weekdays and weekends, for all positions, but many teachers are still working long hours.
- The burden on Japanese teachers is high even by international standards.

Working hours of teachers per day

(時間:分)

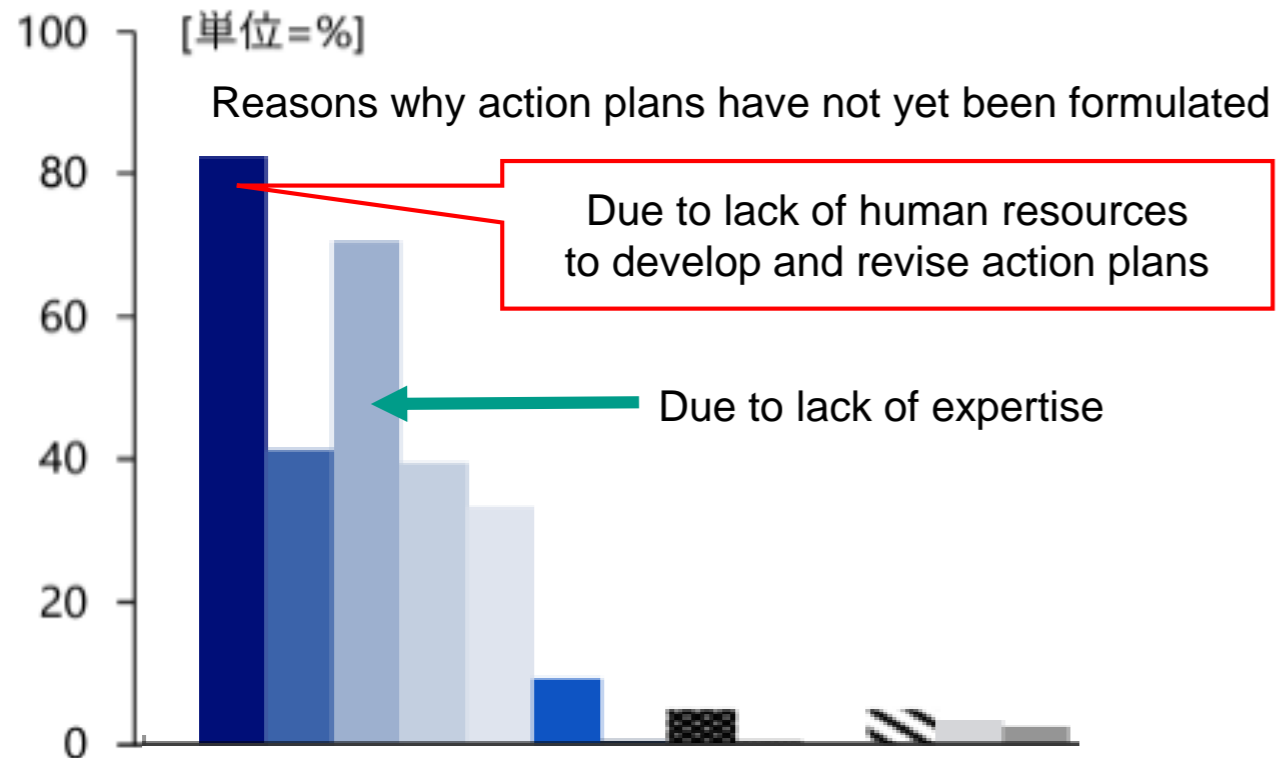
Weekday	G1-6			G7-9			G9-12
	FY 2016	FY 2022	+ -	FY 2016	FY 2022	+ -	FY 2022
Principal	10:37	10:23	-0:14	10:37	10:10	-0:27	9:37
Vice Principal	12:12	11:45	-0:27	12:06	11:42	-0:24	10:56
Teachers	11:15	10:45	-0:30	11:32	11:01	-0:31	10:06
Saturday and Sunday	G1-6			G7-9			G9-12
	FY 2016	FY 2022	+ -	FY 2016	FY 2022	+ -	FY 2022
Principal	1:29	0:49	-0:40	1:59	1:07	-0:52	1:37
Vice Principal	1:49	0:59	-0:50	2:06	1:16	-0:50	1:18
Teachers	1:07	0:36	-0:31	3:22	2:18	-1:04	2:14

Challenges in promoting Environmental Education (Local governments and Businesses)

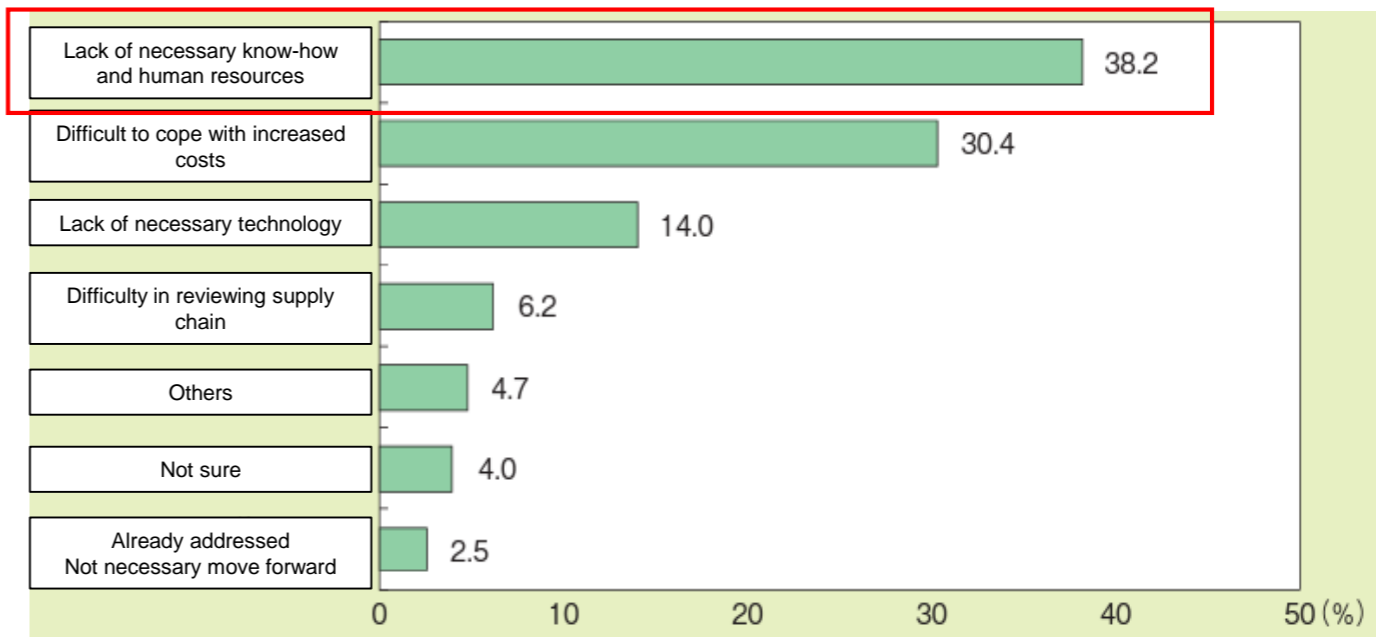
■ Local governments and businesses are facing a serious shortage of human resources to achieve regional decarbonization.

“Lack of human resources” was the most common reason for local governments not having formulated action plans based on the Act on Promotion of Global Warming Countermeasures.

The most impactful challenge for businesses in decarbonizing is the lack of human resources



Challenges that have the most significant impact on addressing decarbonization



※Municipalities with a population of less than 10,000 (n=201) *Similar trends in other categories

Revisions to the basic policy of the Act of EE are coming next year



Based on these circumstances, the Japanese government's "**Grand Design and Action Plan for a New Capitalism**" emphasizes the necessity of investing in people, including specific strategies for cultivating and securing talent to promote decarbonization.



The basic policy of the "**Act on the Promotion of Environmental Conservation Activities through Environmental Education**," which is scheduled for the next fiscal year, is being revised in light of the above issues and with input from experts on domestic and international trends.



Thank you for Listening!



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Ministry of the Environment