

Geopark Committee
ESD Strategy Working Group Report

Medium-Term Education Strategy for
Sustainable Development in the Izu Peninsula
Geopark

Preface

The Izu Peninsula was recognised as a UNESCO Global Geopark in 2018. Now that we have recertified, five years on from our first designation, we want to remind ourselves that designation carries with it a constant international responsibility to be at the forefront of sustainable development. What do we mean by “sustainable”? The first instinct of many people is to conserve their natural environment. On its own, however, this is not a good enough answer. We must ensure that industry does not collapse, leading people into poverty, and that as a society we build transparent and fair relationships. In other words, we need to envision a society where the natural environment, ourselves, and future generations are not overburdened.

What do we mean by “development”? Does this refer only to economic growth and the construction of new roads and facilities? Our answer is no. It is necessary for people living here to nurture and fully demonstrate their hidden potential. Education paves the way for development by honing and nurturing potential and allowing it to bloom. However, if the numerous restrictions and constraints imposed by society are too severe, the potential of individuals can be nipped in the bud. This is why education to create a sustainable society needs to be pursued with the dual purposes of the internal flowering of individual potential, alongside the creation of a more open society. The transformation of the individual and society are not just two wheels of the same vehicle; they are an interconnected spiral.

From this perspective, we are trying to conceptualize education for the custodians of our geopark, or in other words the creation of a sustainable society. A geopark is not just an exhibition of geological phenomena and

traces of volcanic activity. The heritage of these lands is a stage that has been given to us. We need to remember that each of us is invited to appear on this stage as an actor, and not a member of the audience. It is essential that we come to know and love this stage. However, our gaze goes beyond that. It is our sincere hope that as many people as possible will have the will to write stories for the future on this stage as fully involved actors, playing leading roles. With this in mind, we propose this report for publication.

Proposals

Education for sustainable development (hereinafter referred to as “ESD”) means education for achieving the SDGs promoted by the United Nations (UNESCO). The ESD Strategy Working Group was established with the aim of building a medium-term basic policy for ESD. The working group was one of the expert committees that developed and restructured the Education Committee of the Geopark Promotion Council following the merger of the Izu Peninsula Geopark and Tourism Bureau and the Izu Peninsula Geopark Promotion Council on 1 April, 2022.

After one year of deliberation based on the new curriculum guidelines, the Izu Peninsula Grand Design, the Geopark Basic Plan and Action Plan, and the examiners’ findings during UNESCO recertification in FY2022, we propose four basic policies for the upcoming three-year period.

1. Make the main goal of our educational activities creating the leaders of a sustainable society
2. Based on concepts promoted by UNESCO, such as learning that links individual transformation with social transformation, as well as the qualities and abilities that are key to a sustainable society, implement and develop ESD to meet conditions and needs in today’s society
3. Prioritize dialogue and collaboration, conduct educational activities that are not limited to school-age students, and work to create spaces that encourage dialogue and collaboration across generations
4. Create systems to link ESD, sustainable community development, and citizen participation in the management and organisation of the Geopark

Background

UNESCO and the Global Geoparks Network have positioned global geoparks at the frontline of sustainable development. In addition, given the situation on the Izu Peninsula, including its accelerating population decline, the creation of a sustainable society has become an urgent issue. In light of these points, the Izu Peninsula Geopark and Tourism Bureau, which is the governing body of the Global Geopark and a DMO, is required to carry out comprehensive educational activities that include not only the transmission of knowledge about geology and local history, but also create places for people to have experiences, promote participation and action, and nurture the leaders of a sustainable society.

Sustainable development needs to look at three aspects: the natural environment, society and the economy. These elements overlap and relate to each other across different layers. Geology and topography support the economy, society and culture, and form the basis of the natural environment. Geoparks are a great place to gain a comprehensive education about ecology, society and culture, regional economic relationships, and the geology that underlies all of this. However, without systems thinking to connect these various elements and gain a comprehensive understanding, and without the ability to critically grasp current problems, geopark learning is limited to acquiring sporadic knowledge about specific domains.

The set of qualities and competencies shown in Table 1 is referred to as “sustainability competencies.” This is essential for nurturing not only the above intellectual abilities, but also social relationships and a sense of empathy.

But these qualities and competencies need to be nurtured through long-lasting

dialogue and collaboration, not through lectures or one-off outdoor activities.

In order to achieve this, a series of processes are emphasized: exposure to diverse ideas through joint exploration, understanding of underlying structures, reaching out to others, and finding new value.¹

It is important to learn how to build mechanisms to overcome problems in the medium to long term, while dealing with heterogeneity through the participation of heterogeneous actors of various backgrounds.² In view of the above points, we propose as new projects the creation of a forum for dialogue and the design of projects and medium-term strategies involving diverse participants, in parallel with existing geopark studies.

ESD ideally envisions a virtuous cycle in which individuals who become key players in the creation of a sustainable society are nurtured by acquiring and internalizing “sustainability competencies,” and the activities that such key players engage in contribute to solutions to local problems. Furthermore, such activities would provide new learning and growth opportunities for both participants and key players themselves. The proposal to plan projects jointly with citizens and others, and to execute projects while supplementing each other’s insufficient resources, is based on the hope that the Izu Peninsula Geopark and Tourism Bureau will play a role in creating virtuous circles and linking individual transformation with social transformation.

¹ Masahisa Sato and Takuji Hiroishi (2020) “*Combined Capabilities for Realizing SDGs*” (in Japanese) p. 175

² Ibid, p. 176

[Table 1]: Qualities and competencies required of the leaders of a sustainable society

1) Systems thinking
The ability to recognize and understand relationships: the ability to analyse complex systems; the ability to consider how systems are embedded within different domains and scales: and the ability to handle uncertainty
2) Forecasting
The ability to understand and appreciate multiple future outcomes (possibilities, predictions, and desires); the ability to create one's own vision for the future; the ability to apply the precautionary principle; the ability to assess the consequences of various actions: and the ability to handle risks and changes
3) Norms
The ability to understand and reflect on the norms and values inherent in one's behaviours; and the ability to discuss sustainability values, principles, goals and targets in the context of conflicts of interests, trade-offs, uncertain knowledge and contradictions
4) Strategy
The ability to collectively develop and implement a range of innovative actions to become more sustainable, from the local level through to distant locations
5) Collaboration
The ability to learn from others; the ability to understand and respect the needs, perspectives, and actions of others (empathy): the ability to understand, relate to, and care for others (empathic leadership); the ability to handle group conflict: and the ability to facilitate collaborative and participatory problem-solving
6) Critical thinking
The ability to question norms, practices, and opinions; the ability to reflect on one's own values, perceptions, and actions; and the ability to articulate a position in the sustainability discourse
7) Self-awareness
The ability to reflect on one's own role in local and global society; the ability to continuously evaluate and further motivate one's own behaviour: and the ability to handle one's own feelings and desires
8) Integrated problem-solving
The comprehensive ability to apply different problem-solving frameworks to complex sustainability agendas; the comprehensive ability to develop viable, inclusive and equitable solution options to drive sustainable development: and the ability to integrate the various competencies described above

(Source) Masahisa Sato (2020), “*Perspectives on the abilities required to create a sustainable society adapted to a VUCA society*,” co-authored and co-edited by Masahisa Sato, Yuto Kitamura and Shunsuke Managi, “*ESD and Social Resilience in the Era of SDGs*” (in Japanese) p. 31

Medium-Term Business Policy

The following projects are submitted as specific initiatives in line with Proposals 1 to 4. In addition, it is proposed that projects (1) to (4) shall be interlinked and operated with an awareness of seeking to realize a large virtuous cycle in terms of the overall picture.

(1) Dissemination of an ESD philosophy

For the region of the Izu Peninsula, we will propose two programmes: (1) Lectures in conjunction with a geo guide training course, and (2) a “Geo Caravan” (see Attachment 3, Project 3-1) for small gatherings in various locations throughout the region. We will also publish a book (Attachment 2) for the entire Japan Geoparks Network, with current members as the main authors, and use this book as a teaching tool to attract national training sessions from the Japan Geoparks Network.

(2) Promotion of dialogue and creation of spaces

Dialogues and collaborations between diverse and heterogenous actors are important processes for social transformation that are emphasized in ESD. At Georia, a dialogue event “Geo salon” (see Attachment 3, Project 3-2) will be held between employees, local residents, and various stakeholders.

(3) Linking ESD with the creation of a sustainable society

The Eastern Satellite Campus of Shizuoka University will co-host presentations and exchange meetings on solutions to regional issues and SDG issues (see Attachment 3, Project 3-3) in order to solicit ideas that will contribute to the creation of a sustainable society from various stakeholders in the region. Izu Peninsula Geopark and Tourism Bureau will support and commercialize excellent ideas. In addition, the aforementioned dialogue

event “Geo salon” (see Attachment 3, Project 3-4) will be held with a view to creating collaborative projects between Izu Peninsula Geopark and Tourism Bureau and regional actors, with the aim of overcoming social problems.

(4) Development of mechanisms for citizens’ participation

The next basic plan and action plan for the Izu Peninsula Geopark will be drawn up with the direct participation of various local actors in order to pave the way for deep and sustainable citizens’ participation in the geopark activities of Izu Peninsula Geopark and Tourism Bureau, in ways that go beyond sporadic project proposals (see Attachment 3, Project 3-4).

[Attachment 2] ESD Book Proposal

(Provisional title) “*Geopark Education - Changing Yourself, Changing Others*” (in Japanese)

1. Purpose and outline of the plan:

Education is one of the three areas that form pillars for geopark activities. Many geoparks have focused their efforts on this area. What do we mean when we refer to “education” here? Many geoparks around the country might consider education as synonymous with supporting science education in schools and simply passing on knowledge of earth science.

But it has already been 15 years since the establishment of the Japan Geoparks Network, and the trends in education have been steadily changing during this time, with an increasing interest in the SDGs. What’s more, the expectations for geoparks have changed since UNESCO officially launched them in 2015. In response to these trends, the aim of the book will be to present a new picture of geopark education. The key word for understanding education at the Geopark is ESD (Education for Sustainable Development). ESD is based on the educational concept of “behavioural change for social transformation,” whereby individual behaviour is transformed through the cultivation of key competencies, such as systems thinking and comprehensive problem-solving skills, and individuals with these competencies work together with heterogeneous and diverse actors to transform society as a whole into a more sustainable one. The breadth of scope and depth of commitment to sustainable development of ESD is obvious when compared with a narrow interpretation of environmental education, which has experience of nature at its core.

In addition, following UNESCO’s launch, geoparks have been given a frontline role in sustainable development. Accordingly, it has become necessary to deal with topics that cannot be captured under the conventional framework of science education. For example, topics such as climate change education, social inclusion, and the interaction between the environment and cultural heritage are included in geoparks education.

We would be delighted if this book could help to redefine and reform geopark education in Japan by addressing these new educational perspectives and topics, which have not yet been tackled head-on.

2. Structure: Chapter planning and proposed authors (draft)

Preface		Request to JGN and JGC
Part 1		
Chapter 1	ESD Concepts, Resilience, Organisation-Building, and “Star-Gazing”-type Collaboration	Member, Sato
Chapter 2	Initiatives Based on ESD Concept Papers, etc.	Member, Ito
Chapter 3	SDGs and Geopark Education: Linking through Systems Thinking	Member, Yamamoto
Part 2		
Chapter 4	Geoparks and Climate Change Education	Researcher, Endo
Chapter 5	Geoparks and Cultural Diversity	Researcher, Tsuji
Chapter 6	Geoparks and Social Inclusion	Shizuoka University/Lecturer, Uchiyama
Conclusion		Request to JGN and JGC

[Attachment 3] Medium-term Business Plan

Project 3-1 - ESD Caravan	
Overview	Webinars on the concept of ESD will be held mainly for certified geo guides. As follow-up events, small gatherings will be held at three venues to encourage discussion and interaction with committee members on the topic of ESD.
Top goals	Develop human resources and networks that contribute to the creation of sustainable communities
Perceived problems	<ol style="list-style-type: none"> 1. The concept of ESD has not penetrated into regions or among geo guides. 2. There are not enough opportunities for exchanges of opinions on education that includes ESD, or the training of geo guides. 3. There are not enough opportunities for the administrative office to exchange opinions with geo guides on education that includes ESD.
Project goals	<ol style="list-style-type: none"> 1. Core geo guide members understand the concept of ESD. 2. <ol style="list-style-type: none"> (a) Momentum is created for geo guides to regularly exchange opinions and information on education. (b) Dialogue between members and the administrative office with geo guides fosters a sense of trust.
Invested resources	<ol style="list-style-type: none"> 1. Two or so members would participate in webinars. 2. One or two members would accompany the Geo Caravan. 3. The amount of money spent on events would be enough to cover venue fees and refreshments.
Reach indicator	<ol style="list-style-type: none"> 1. Forty people for a webinar; three or four venues for the Geo Caravan Attendance by a total of about eighty people

Project 3-2 - Geo Salon	
Overview	As a successor to the former “Wednesday Georia” project, the Geo Salon project will create opportunities for local personnel and members of the administrative office, led by geo guides, to discuss regional issues and new project proposals while sharing refreshments.
Top goals	Develop human resources and networks that contribute to the creation of sustainable communities
Perceived problems	There are not enough opportunities for local personnel, such as geo guides, to meet face-to-face and build relationships.
Project goals	<ol style="list-style-type: none"> 1. Opportunities for regular face-to-face meetings on local issues between local personnel and the administrative office, or between local personnel will be provided. 2. Through Step 1, social capital will be accumulated to facilitate collaboration.
Invested resources	<ol style="list-style-type: none"> 1. Providing one venue every one or two months, on days when Georia is closed. 2. Fees paid to topic providers (for external invitations) 3. Refreshments and light meals
Reach indicator	<ol style="list-style-type: none"> 1. About six meetings per year in the first year 2. A total of about fifty participants
Results	One or more new projects seeded by the meetings

Project 3-3 - Regional & SDGs Issues Resolution Presentation Meeting and Exchange Meeting

Overview	The project will provide opportunities to people of many age groups, especially young people, with the aspiration to solve local issues by utilizing local resources and establish projects that contributing to realizing the SDGs, to share their knowledge on sustainable regional development, and to cultivate effective problem-solving skills through dialogue with richly heterogeneous actors (government bodies, researchers, local enterprises, regional cooperation teams, etc.). It will also provide opportunities to supplement scarce resources and commercialize programmes with support from Izu Peninsula Geopark and Tourism Bureau and elsewhere.
Top goals	Develop human resources and networks that contribute to the creation of sustainable communities
Perceived problems	<ol style="list-style-type: none"> 1. There are not enough opportunities for young people to share widely their knowledge that could help solve local problems. 2. It is not clear how Izu Peninsula Geopark and Tourism Bureau should be involved in investigative learning by local secondary education institutions or PBL by higher education institutions. 3. There is a lack of opportunities to reflect the perspectives of local youth in project planning at Izu Peninsula Geopark and Tourism Bureau.
Project goals	<ol style="list-style-type: none"> 1. Create opportunities for trying out regional solutions by heterogenous actors 2. Provide model cases for Izu Peninsula Geopark and Tourism Bureau's involvement in investigative learning in secondary education 3. Reflect young people's views directly in project proposals
Invested resources	* Izu Peninsula Geopark and Tourism Bureau and Shizuoka University will co-host the project, and both sides will share administrative tasks. Budget measures are under discussion. When inviting candidates to act as judges, Izu Peninsula Geopark and Tourism Bureau would work on the assumption of inviting Sun to Moon Kakitagawa (which will also be asked to provide a venue), Mishima Shinkin Bank, and Fujinokuni Future Foundation (ESD regional base), etc.
Reach indicator	Participation of about eight schools and groups in the first year (aiming for a gradual increase)
Results	One or more new projects seeded by the project

Project 3-4 - Future Geo-making Salon	
Overview	Based on the Geo Salon and Geo Caravan, we will create venues for strategic co-creation based on the Fukuyama Future Co-creation School as a role model, and formulate the next basic plan and action plan for the Izu Peninsula Geopark with the participation of citizens, businesses and other diverse local actors.
Top goals	Embody the idea of a geopark, which means governing Izu Peninsula Geopark and Tourism Bureau from the bottom up and governing at the grassroots level, and serve as an example to promote the transformation of local communities.
Perceived problems	<ol style="list-style-type: none"> 1. Existing public participation processes for decision-making at Izu Peninsula Geopark and Tourism Bureau are highly formal. 2. There is a lack of mechanisms for actors formed through other projects to continue and deepen their participation in decision-making at Izu Peninsula Geopark and Tourism Bureau.
Project goals	<ol style="list-style-type: none"> 1. Ensure opportunities for citizens' participation in the formulation of the Izu Peninsula Geopark and Tourism Bureau's medium-term strategy. 2. Ensure that involvement by diverse regional actors in Izu Peninsula Geopark and Tourism Bureau deepens from the stage of transient projects through to a more continuous timescale and a higher level of involvement in decision-making.
Invested resources	<ol style="list-style-type: none"> 1. Providing one venue every two months, on days when Georia is closed. 2. Fees paid to topic providers (for external invitations) 3. Refreshments and light meals
Reach indicator	<ol style="list-style-type: none"> 1. About five meetings per year 2. A total of about 100 participants

Results	New basic plan and action plan for Geopark activities reflecting the views expressed at the meetings (five-year plan from 2026)
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