



United Nations  
Educational, Scientific and  
Cultural Organization



**Muroto**  
UNESCO  
Global Geopark

## Progress report 2016 - 2019

**Name of UNESCO Global Geopark (UGGp):**

Muroto UNESCO Global Geopark

**Country:** Japan

**Person(s) responsible for the report:**

Koji WADA

(Secretary General of Muroto Geopark Promotion  
Committee)

### A. GENERAL INFORMATION

Surface area in km <sup>2</sup>	248.20km <sup>2</sup>
Population	13,451 (November 2018)
Year of acceptance as UNESCO Global Geopark	2015
Year of membership in the Global Geoparks Network (before the establishment of the UGGp label in 2015)	2011
Previous revalidation date(s) and name(s) of previous evaluator(s)	2015 July 14 <sup>th</sup> -16 <sup>th</sup> Nickolas Zouros Anchel Belmonte Ribas
Contact person (name, position, e-mail)	Koji WADA Secretary General of Muroto Geopark Promotion Committee info@muroto-geo.jp
Website (please provide URL)	<a href="https://www.muroto-geo.jp/en/">https://www.muroto-geo.jp/en/</a>
Social media (please provide list of all channels used)	Facebook ENG page (@MUGGP) Facebook JPN page (@murotogeopark) Twitter (@murotogeopark) Instagram (@murotougpp)

## B. LIST OF DOCUMENTS SUBMITTED BY THE UGGp

Progress Report 2016-2019

Self-Evaluation Documents A and B

GGN Annual Reports (2016, 2017)

Annex 1: Attached Document to Self-Evaluation Documents A

Annex 2: List of Geopark Sites

Annex 3: List of Research Topics funded by Muroto UGGp Research Grant Annex 2

Annex 4: List of Academic Literature

Annex 5: List of Heritage in Muroto

Annex 6: Organization Chart of Muroto Geopark Promotion Committee

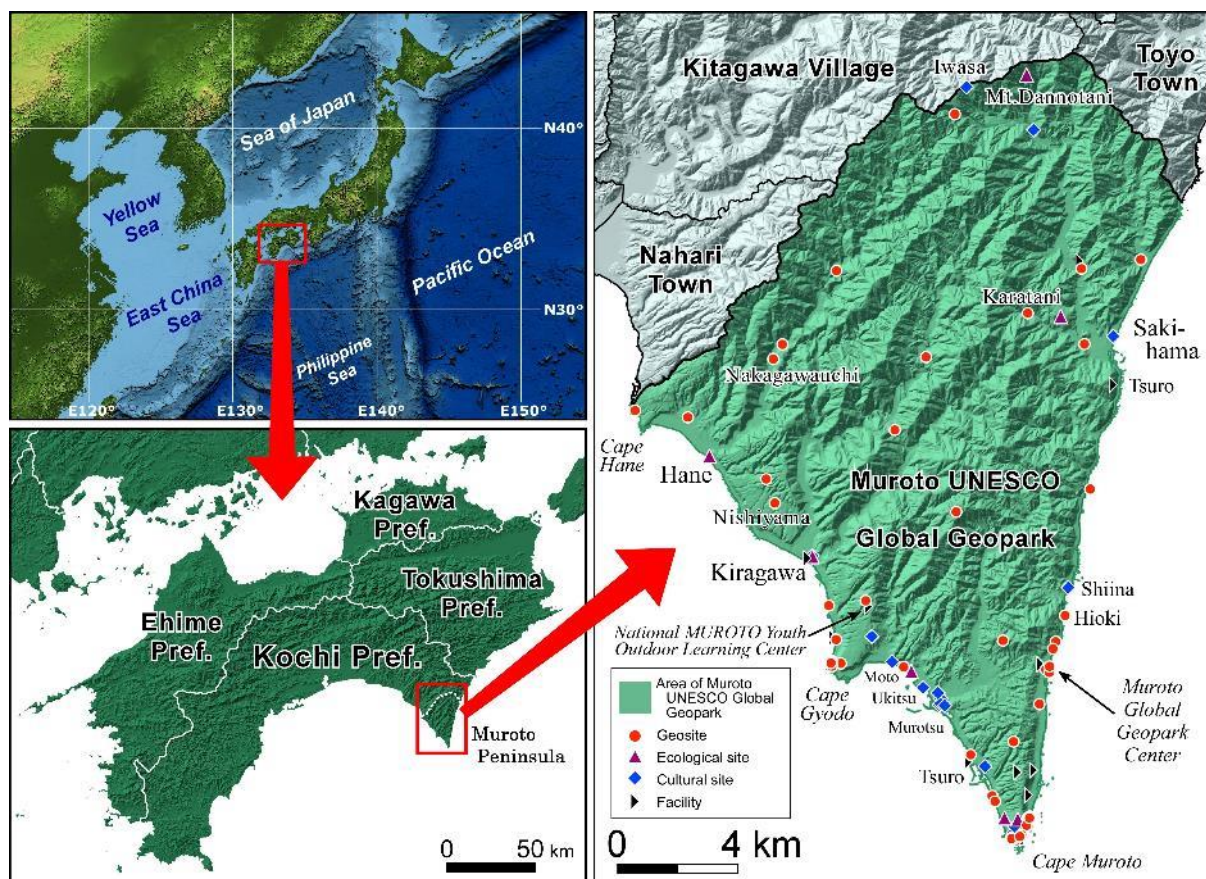
Annex 7: Action Plan 2016-2019

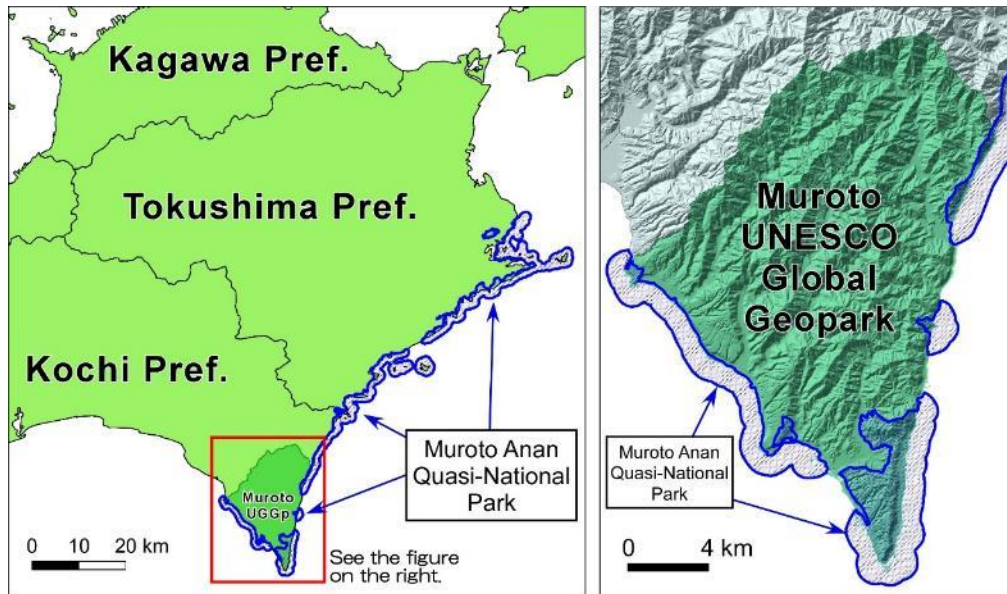
Annex 8: Muroto UNESCO Global Geopark Master Plan 2018-2028

Annex 9: List of Guided Tours and Activities in Muroto UGGp

## C. MAP OF THE AREA

Muroto UNESCO Global Geopark (Muroto UGGp) encompasses the entire administrative district of Muroto City, Kochi Prefecture. The Geopark's land is contiguous.





Map 2: Location of Muroto-Anan Kaigan Quasi-National

## D. IMPROVEMENTS MADE ON PREVIOUS RECOMMENDATIONS

Status: Green Card (2015)

Recommendation 1

More work is needed to improve the inventory and assessment of the geosites. An accurate definition of different types of sites of interest could be useful for a better management and use of the territory. The use of the term “geosite” could be reconsidered and other terms could be used for cultural and ecological sites. The sites of interests within the Muroto Global Geopark could be divided into groups of sites with geological (geosites, i.e. Cape Muroto), ecological or cultural interest (i.e. Kiragawa Town). For example: the town of Kiragawa, considered now as a “geosite” could be divided into three elements, as one geosite (the fault scarp), one ecological site (the orchids growing from tree branches) and two cultural sites (the shrine and the village).

Muroto UGGp started work on improving the inventory and assessment of the geosite immediately after receiving the recommendations. There used to be 22 “geosites.” There are now 51 geosites, 10 ecological sites, and 17 cultural sites (78 new sites in total; see Annex 2). Several old sites covered wide areas and focused on several different themes. These were separated into multiple sites with specific locations, with themes falling into one of the above three categories (geological, ecological, and cultural). Each new site focuses on a more definitive and specific theme.

Recommendation 2

Other important elements interesting for visitors such as the Global Geopark Visitor's Center, the Terraces observation platforms on the National Muroto Youth Outdoor Learning Center should be also promoted and used as Global Geopark information and starting-points for activities. Assemblages of sites of interest such as the Kukai's Pilgrimage route, should be promoted in association with the various geo-sites, eco-sites and cultural sites of the Global Geopark, which lay along the route.

Muroto UGGp now has 10 information centers. These include Muroto Global Geopark Center, the main visitor center, which opened in 2015 (see Annex 2). The National Muroto

Youth Outdoor Learning Center (Muroto Learning Center) is another of the 10 information centers. It serves as a starting-point for several activity-based learning programs and tours. The *Binchotan* Charcoal Producing Tour involves using charcoal kilns at the Muroto Learning Center; tour participants visit a terrace observation platform at the Center, and also learn about the marine terrace formation process.

The Lighthouse Hiking Tour is a new guided tour that started in 2016. It involves a casual hike to Cape Muroto Lighthouse along a pilgrimage route. Participants are recommended to join both this tour and the walking tour at Cape Muroto, which shows several geosites and ecological sites along the coast. The Cape Muroto Lighthouse tour includes cultural sites such as Cape Muroto Lighthouse (M23) and Hotsumisakiji Temple (M24). Participants can learn about the vegetation along the route and also walk on “uplifted-land” at the coast, so as to get a true sense of the explanation given on the tour. These two tours are promoted in association with the various geosites, ecosites and cultural sites for visitors (see Annex 9).

### Recommendation 3

Nearly all the geosites are concentrated on the coast. There is still potential to increase the number of geosites inland in the mountains. Extending the number of geosites in the wider area would bring more opportunities for geotourism, increasing the “things to do list” in the Global Geopark with the obvious benefits for accommodation providers, restaurants, etc.

Muroto UGGp revised its geopark sites in fiscal year (FY) 2017. It currently has 6 new geosites, 2 ecological sites, and 2 cultural sites inland in the mountains. Mt. Dannotani (S08), which has wild cedar-tree stands in the mountains, was one of sites even before the site revision. It is now categorized as an ecological site. A trekking tour at Mt. Dannotani has been run by a local guide group since before the site revision. In order to increase the number of guides for the tour, a training course for Mt. Dannotani guides has been run since 2014.

### Recommendation 4

The importance put on Muroto Cape in the Global Geopark is too heavy. For sure it is a place of high interest, but the Global Geopark should try to encourage visitors to other less known areas.

The “Geo Tourism Promotion Team” (see E. 6.), composed of locals, has developed new guided tours such as the “Walking Tour at the Fishing Village” and “Potato Digging on the Marine Terrace Tour.” These tours have been continuously run several times a year as special seasonal tours since 2014. The number of guides for the Walking Tour was increased in 2018. The Potato Digging tour has been run on Nishiyama Plateau (marine terrace) since its start; the tour was run also on Sakiyama Plateau in 2018. Since regular visitors do not have enough chances to visit such places other than Cape Muroto, Muroto Global Geopark Center promotes these tours for visitors. The promotion team also distributes posters of tours to shopping malls outside of Muroto City and contributes PR articles to a local magazine. These promotions will provide a good chance for visitors to explore areas other than Cape Muroto.

### Recommendation 5

Structural geological features, at Muroto Cape such as faults, should be integrated in the geosite interpretation of the area. At Muroto Cape there are small scale tectonic structures that can contribute significantly to the interpretation of the deformation processes and off-shore major structures of the accretionary complex.

Local guides integrate the structural geological features such as fold structures and faults at Cape Muroto and Gyodo Coast in their interpretation. During educational tours for



elementary and middle school students, colonies of tube worms (*Spirobranchus kraussii*) at Cape Muroto are clearly explained to show evidence of land uplift caused by earthquakes. At Gyodo Coast you can observe sand dykes, evidence of liquefaction. Guides use plastic bottles filled with sand, mud, and water to explain the process, allowing tour participants to gain a visual understanding of liquefaction.

One of the new sites designated by Muroto UGGp is a location in the mountains of Kiragawa, where a fault is visible. Local guides have started to study this place with the Geopark's earth scientists, with the aims of developing a new guided tour.

#### Recommendation 6

The management structure should be clearer, especially what concerns the new development of the Global Geopark Promotion Team. It would be useful to identify a person in charge of each one of the five commissions, to make this team more efficient.

The Muroto Geopark Promotion Team, composed of locals, plans and carries out projects based on the Muroto Geopark Action Plan (2016-2019). The Promotion Team is made up of five sub-teams. Each team focuses on one of the Action Plan's five goals: "Conservation," "Education," "Hospitality," "Business," and "Promotion." Team members were involved with discussing and developing the action plan. Team leaders were selected among locals in 2017 (see Annex 7 for the Action Plan).

#### Recommendation 7

The science advisory committee should be enlarged and include also specialists from currently absent Earth-science disciplines and landscapes specialists. Scientists with a broader sense of the landscape are needed to improve the interpretation of the Global Geopark surface sites of interest. It is difficult for Global Geopark visitors to understand all the important scientific research of the KCC, as the deep seafloor structures and processes cannot be directly seen by the Global Geopark visitors.

In FY 2017, Muroto UGGp appointed several researchers in the fields of structural geology, biology, botany, and UNESCO/ international networking as Special Advisors to the Geopark. Furthermore, one of the Geopark Specialists is a geographer holding a Ph.D. in Geoscience. These Special Advisors provided advice for designating new sites. In order to facilitate more frequent discussions with them, the Muroto UGGp is using a mailing list including the Special Advisors, Technical Advisors (who are researchers), local politicians, and the Secretariat of Muroto Geopark Promotion Committee.

#### Recommendation 8

The Muroto National Youth Outdoor Center is of great value for the Global Geopark that should be further exploited, making Muroto Global Geopark a big playground for children of the whole country. The existing cooperation should be enlarged with more activities and education programmes for school classes and for University students. The exceptional conditions of Muroto together with the quality and size of the center facilities could make this possible. It could be also used for school and University group exchange. It is an ideal infrastructure for hosting school groups from other Global Geopark.

Muroto UGGp signed a partnership agreement with National Muroto Youth Outdoor Learning Center in March 2016, and we have developed more experience-based programs

that are run at the Center. “Explore the Geopark!,” a joint program with the Muroto Learning Center, has been run several times, focusing on different themes. Program participants stay overnight at the Center, learning about the land formation processes in the area or participating in natural disaster evacuation experiences. The two organizations are very positive about continuing to hold this experience-based program.

#### Recommendation 9

Special care should be taken for the establishment of collaboration with other Global Geoparks. The close collaboration with other Global Geoparks, like the exchange of visits and building of common activities will improve Global Geopark operation and activities. The support of the GGN and advice from GGN experts can be sought in order to solve certain problems and explore new opportunities for alternative Global Geopark activities.

Muroto UGGp signed a partnership agreement with Langkawi UNESCO Global Geopark, Malaysia in October 2018. Since the APGN symposium in 2013, the two Geoparks have proactively encouraged communication between local people in both locations through several Skype meetings and exchanges of handmade art works made by local children.

The Geoparks are planning activities such as more frequent Skype meetings and creating a joint brochure, activities that will benefit both Geoparks but do not need large budgets.

#### Recommendation 10

Active participation in GGN conferences, meetings and capacity building activities is also important as this contribute significantly to the distribution of best practice, exchange of know-how and further supports the development of the Global Geopark.

Muroto UGGp has been present at every GGN and APGN meeting since 2011. Muroto UGGp especially focuses on the capacity-building activities for Aspiring Geoparks in the Asia Pacific region.

- Muroto UGGp’s Coordinator for International Relations participates in the Regional Course on UNESCO Global Geoparks, held in Langkawi UGGp since 2016 and distributes best practices and exchanges know-how on Geopark management of Muroto UGGp. A local guide also participated in the Course in 2018 and shared her experiences as a guide with other participants.
- The “Capacity Development Project,” a collaborative project with other UGGps and Aspiring Geoparks in Japan, was launched in 2016. The Coordinator for International Relations served as a sub-leader for the Project in 2016. The Project supports Aspiring Geoparks in the Asia Pacific region to participate in GGN conference and give oral presentations, and it also hosts booths. In 2017, Aspiring Geoparks in the Asia Pacific region were invited to the Japanese Geoparks Network Meeting under the Project (see also E.8 Joint Project).

#### Recommendation 11

The dissemination of news about Muroto Global Geopark activities will help to promote the Muroto Global Geopark internationally.

Muroto UGGp publicizes its events and projects via the following media:

GGN Newsletter articles: 2016 Issue 1, 2017 Issue 1 and Issue 3, 2018 Issue 2

GGN Website articles: August 2016, April 2017

Web tools that Muroto UGGp uses:

Official Website (Japanese/English)

Facebook (Japanese/English)

Instagram (English)

Twitter (Japanese)

## **E. VERIFICATION OF UGGp CRITERIA**

### **E.1 TERRITORY**

#### **E.1.1 GEOLOGICAL HERITAGE AND CONSERVATION**

Muroto UGGp contains one of the best-understood and youngest accretionary complex in the world. Accretionary complexes are created by subduction-related processes, and located at the boundary of continental and oceanic plates. The Muroto UGGp complex is composed of stratified sandstone and mudstone beds, deformed as the plate they lay on was dragged into the Nankai Trough subduction zone. These formations are particularly visible around Cape Muroto. Tectonic processes have formed the relief and landscape of the Muroto Peninsula. Beautiful marine terraces were created through a combination of wave-driven erosion and uplift caused by earthquakes. This geopark is geologically characterized by accretionary complex formation and associated magmatic intrusion, sedimentation on top of the accretionary complex and uplift caused by earthquakes.

#### **Conservation**

Most of the geological heritage within Muroto UGGp is protected by the Natural Parks Law (Muroto-Anan Kaigan Quasi National Park), the Act on Protection of Cultural Properties, the Muroto City Ordinance to Protect Cultural Properties, and the Muroto City Basic Environmental Ordinance. In addition, the Geopark works as a link between the local municipality and locals to promote collaborative conservation efforts.

Local guides serve a vital role in site protection, as they patrol sites while giving tours. They provide tours nearly every day. By checking sites during tours and discussing the importance of conservation with visitors and locals, the care guides give towards the sites. Their desire to pass on this heritage to future generations is visible, inspiring more people to become involved with protecting the sites. The Geopark Geologist and Geographer patrol sites where tours are infrequent.

At Muroto UGGp, the above Geologist and Geographer assist researchers with the procedures necessary to obtain samples under the assorted conservation laws. They also accompany researchers on site surveys, providing advice on geologic resource conservation and sampling, and increasing researcher's awareness of geological heritage conservation. By doing so they work to prevent excessive sampling.

#### **Conservation Plan for New Geosites**

As mentioned above, in FY 2017, Muroto UGGp reviewed our existing sites, designating many new geologically and topologically interesting locations as "geosites." Many of these new sites were formed by splitting existing geosites that were too large. (For example the Cape Muroto site has now been split into multiple sites such as "Turbidite at Cape Muroto" and "Tafoni at Cape Muroto," making the specific location the geological heritage which is found at the site.) Therefore, the new geosites that are located in the same

areas as prior geosites are already located in preservation areas. In addition, the following new geosites have been added to our preservation areas (see Annex 2 for full list):

Nakagawauchi Village, formed on a fluvial terrace (H04), Round hill formed by Hanegawa River (H05), Fluvial terrace deposits in Hanegawa River (H06), Sakaihama mélange and gabbro (K06), Fault in Chojano (K07), Alluvial fan in Mitsu (M26), Karataninotaki Falls(S04)

### E.1.2 BOUNDARIES

Muroto UGGp encompasses the entire administrative district of Muroto City, Kochi Prefecture (see section C. Map 1). The Geopark land is contiguous. Information on the Geopark area is provided to locals and visitors through maps, brochures, and information panels. These highlight the Geopark area with different coloring, or show the Geopark area only (see the right map as an example).



### E.1.3 VISIBILITY

Signs with the Muroto Geopark logo are installed along roads where one enters Muroto UGGp. The Geopark logo is displayed on key bus stops, and the Geopark is also advertised with a picture of Cape Muroto on the sides of the buses running in Muroto City. Buses are the only form of public transportation within the Geopark.

All of the 10 Muroto UGGp information centers display the Geopark logo or banner flag at their entrances. Most of information centers have Geopark booths, where information about the Geopark and the other information centers is displayed. Muroto Geopark Promotion Committee, the management body of Muroto UGGp, started to sell “geopark polo shirts” in 2011. Approximately 7,500 shirts have been sold so far. The Geopark name, logo, and illustrations of the key sites are printed on the shirt. Many locals wear it regularly and several private companies within the Geopark have made the shirt part of their official uniform for staff members.

There are information panels displayed at each site, explaining the site’s natural, geological, and cultural heritage in both Japanese and English. Nine site information panels will be set up at the newly designated sites (scheduled to be finished in March 2019).

We are working to increase the visibility of Muroto UGGp outside of the Geopark also. There is a Muroto UGGp introduction corner at Kochi Airport. “Tosarikisha,” a souvenir shop and café located near the airport, displays brochures and maps of the Geopark for customers to take. A highway bus route running between Osaka and Muroto has added “Muroto Global Geopark Center” as a new bus stop.

### Information distributed on website and SNS

The Muroto UGGp’s official website and facebook page update its information both in Japanese and English. There are also official twitter in Japanese and Instagram account in English.

### E.1.4 FACILITIES AND INFRASTRUTURE

- Muroto Global Geopark Center:



Muroto Global Geopark Center opened in April 2015. Beyond being a visitor center for Muroto UGGp, it also serves as a base for local tourism, giving out information to promote excursions around the local area. In addition, it provides a location where visitors can receive information about a variety of guided tours and experience programs (see E.6), and register for them. The Center exhibits interactive and written information in both Japanese and English.

- **Kiragawa Information Center:**

This facility is operated by the NPO Preservation Society of Kiragawa Townscape, one of the partner organizations of Muroto UGGp. It is one of the information centers for Muroto UGGp, as well as an information center for Kiragawa Town. The guided tours of Kiragawa Townscape depart from and return here. Here is also a geopark bicycle rental location. Visitors can rent and return bicycles at both Muroto Global Geopark Center and the Kiragawa Information Center, enhancing visitor's excursions in the Geopark.

- **Restroom Facilities:**

Restrooms were installed at two sites in Muroto UGGp, Mt. Dannotani (2018) and the Shimura Walking Trail (2013). Mt. Dannotani in particular is a difficult site to access due to its position in the mountains, and it is expected that installing a restroom will bring in increased numbers of tourists. Installing restrooms means that visitors are able to spend more time at each of these sites.

- **Bus stops with English translation:**

The public buses that run through Muroto City function as an important form of transport for tourists visiting Muroto UGGp, and the percentage of overseas tourists using these buses is especially high. We are discussing with the public bus company (Kochi Ken Tobu Kotsu) about placing English bus signs at all the important sites around Muroto UGGp. The use of English will not be limited to bus signs; it will also be used in announcements broadcast on the buses.

## **E.1.5 INFORMATION, EDUCATION AND RESEARCH**

### **Interorganizational Communication**

Basic information regarding the Geopark (earth science, nature, culture), events, guided tours, and experiential programs are shared with the public via the following places and media:

- Muroto UGGp's 10 information centers
- Muroto City Tourism Association
- The Muroto UGGp section at Muroto Municipal Library
- Contributing articles every month to "Muroto City PR magazine"
- Publishing a bimonthly Muroto UGGp newsletter
- Posting articles on the official website and social media
- Mass media (newspaper, television, radio).

Visitors also can gain information on geological/natural heritage through information panels at key sites, in brochures, and in maps. Those media explain about the geological/natural heritage through text and pictures. Local guides use the information panels in guided tours. They also use hand-made picture cards and explanatory kits to explain the geological processes occurring in each area.

### **Educational Programs**

- Muroto UGGp Master Course: The Course is run for the public, mainly for locals who live within the Geopark. They learn about the Geopark from a wide range of perspectives; earth history, local culture and history, tourism, Geopark network, and the

Sustainable Development Goals (SDGs), etc. Participants learn about these topics not only in the classroom but also on site, through field trips around the Geopark. Muroto UGGp Geopark Staff (Geologist, Geographer, and Coordinator for International Relations), local guides, Experts from other geoparks, and Muroto UGGp Special Advisors serve as lecturers for this course (held once 2 to 3 years).

- Classes at elementary and middle schools within the Geopark: All elementary and middle schools within Muroto have introduced a class on Geoparks into their official curriculum (a minimum of 2-3 class hours per year). The class is run by local guides and three Geopark staff (specializing in Geology, Geography, and International Relations). Schools decide the class style (in the classroom, field study, or visiting a Geopark-related facility) and topic. Students fill out a questionnaire after the class. This allows the lecturer to receive feedback about the class. The questionnaire has also shown that the course is helping students foster pride in their hometown.
- Geopark Study: In 2011, Muroto High School, the only high school within the Geopark, started “Geopark Studies” as part of its official curriculum (2 classes per week). Students learn about Muroto UGGp’s earth science, local industry, history, and culture. Locals (geo-guides and manufacturers/producers) and the three Geopark staff mentioned above serve as lecturers. Students also develop their own Geopark-related projects, for example: researching local culture, developing a new guided tour, creating an effective publicity plan for Muroto UGGp, and developing Geopark products. At the end of school year, students present the results of their project to the public.
- Muroto Study: Part of the official required curriculum for first-year students at Muroto High School (1 class per week). Students taking this course consider their future occupations through opportunities to communicate with several local manufacturers and producers. Students also visit the geological sites of Muroto UGGp and learn how their hometown is sustainably managed.
- Explore the Geopark! (see also D. Recommendation 8): An experiential education program for elementary school students run by National Muroto Youth Outdoor Learning Center and the Geopark’s earth scientists. In this program students visit several geopark sites and information centers, studying topics such as geo-hazard risk management, land formation processes, etc.
- Geohazard Risk Management Outdoor Walking Class: In 2018, a local elementary school’s after-school club started studying geo-hazard risk reduction. The students learn how they can protect their lives after an earthquake and tsunami, mainly through walking to evacuation points near their school and observing the potential hazards along the evacuation routes. The Geopark Geographer and a staff officer of Muroto City Disaster Prevention Department lead these activities.



## Research

- Kochi University satellite classroom (lab) was created at the Muroto Global Geopark Center in 2015. In 2016, the Geopark Geographer, who holds a doctoral degree, worked as a visiting lecturer at Kochi University. Through activities like these, Kochi University and Muroto UGGp work together on research and education.

- A tripartite partnership agreement was signed in 2011 between the Muroto Geopark Promotion Committee, the Kochi University of Technology Community Connection Department, and the Kochi Institute for Core Sample Research, to facilitate research and education activities among the three organizations.

- River Animals/Water Quality Survey: From FY2016 and FY2017, local elementary school students and other residents hosted river-water quality surveys, researching rivers within their towns. River-water quality variation was evaluated based on transparency and species presence, and was recorded over multiple months.



- Animal Survey: A research project in which locals observe and survey ecology of wild animals; the director of the Shikoku Institute of Natural History, biologist Dr. Shuji Yachimori, serves as the instructor. This research project is also open to the public, especially children, as part of the outdoor experience program “Animal Watching!” (see E.5 Educational Activities).
- Rare/Invasive Plant Survey: Locals survey rare/invasive plants in Muroto UGGp with botanists from Kochi Prefectural Makino Botanical Garden. They also work on the conservation of rare plants.
- Muroto UGGp Research Grant: A research grant program was started in 2018 to support research about Muroto UGGp or Muroto City, regardless of research field. 250,000 JPY is provided for each research project. Researchers receiving this grant will present their projects to locals on March 2019. (see Annex 3).
- Other research activities: Muroto Geopark Promotion Committee also supports undergraduate and graduate students' research in the fields of natural science and humanities. (see Annex 4).

## E.2 OTHER HERITAGE

See Annex 5, List of Heritages in Muroto describing Natural, Cultural, and Intangible Heritages.

### E.2.1 NATURAL HERITAGE

Various areas with geological and geographical heritage that exhibits the effects of plate movement (such as visible uplifts) and a climate of warm, heavy rains, are designated as geosites in Muroto UGGp. Areas with Cape Muroto Sub-Tropical Vegetation and Coastal Vegetation Community, such as the Akou Trees (*Ficus superba var. japonica*), and areas with groupings of rare plants, such as primrose (*Ludwigia stipulacea*) and orchid species (*Luisia teres*), along with habitats for bats and other animals, are designated as ecosites. In many cases, due to their rarity, these animals and plants are protected and conserved by laws and regulations. Many of these sites are also protected by laws and regulations, including the Muroto Anan Kaigan Quasi-National Park area under the National Parks Law (1964), Cape Muroto as a National Site of Scenic Beauty under the Act on the Protection of Cultural Properties (1928), and the Sub-tropical and Coastal Vegetation at Cape Muroto as a Natural Monument (1928).

Since 2015, local residents have worked with Geopark earth scientists to research topics such as ecological and distribution surveys of wild animals and distribution surveys of rare

plants. This is contributing towards understanding and appreciation of the precious natural heritage of Muroto (Please see E.1.5. Research).

### **E.2.2 CULTURAL HERITAGE**

Locations and historic landmarks where one can feel the legacy of the industry and culture fostered by people despite the harsh natural environment they faced are designated as cultural sites.

For example, around 1200 years ago, the founder of the Shingon sect of Buddhism, the monk Kobo Daishi (also known as Kukai), travelled around Shikoku as a form of ascetic practice. It is believed that through this he achieved enlightenment. Many people have travel from all around the world to come and pursue the path of the ascetic—following the Shikoku 88-Temple Pilgrimage. Three of the route's temples, number 24 to 26, are located within Muroto UGGp. In 2018, each of these temples was designated as a Geopark cultural site.

“Kiragawa Townscape” is a site which conveys the relationship between nature and the development of modern industry. Kiragawa prospered through the production of high quality *binchotan* charcoal. The economic resources gained through *binchotan* charcoal were used to construct a townscape with multiple traditional architectural structures, which are still preserved to this day. These include roof drainage-tiles and stone walls which were designed to protect the houses from strong winds and rain. This architectural heritage is protected in accordance with the National Act on the Protection of Cultural Properties, and with city regulations. Not only is it protected, but members of the local residents' organization "NPO Preservation Society of Kiragawa Townscape" also work as guides to convey its value to a wide range of tourists and local children.

### **E.2.3 INTANGIBLE HERITAGE**

The intangible cultural assets of Muroto UGGp are its traditional arts and festivals, which are held to give thanks for the bounty of the earth and to convey a feeling of awe towards nature. Kiragawa's Onda Festival involves 12<sup>th</sup>-century stage-based performances that have been passed down to this day and are designated as a national intangible folk cultural property.

The "Niwaka," is a traditional ad-lib play that satirises society. This tradition is influenced by Kansai performances, due to *binchotan* charcoal trade connections between Sakihama and the Kansai area (around Osaka). It is performed at the Sakihama Hachimangu Shrine and is a contender for being selected under the Act on Protection of Cultural Properties.

The "Shiina Sword Dance" and "Shittoroto Dance" are designated as prefectural cultural assets. As intangible cultural assets like these are designated under different laws and regulations, they are recognised as having public value and can receive financial support from government agencies.

In order to increase interest in these festivals, Muroto Global Geopark Center held a special exhibition titled "Muroto Shinto Festival Exhibit" in 2016, with the aims of spreading awareness of Muroto's traditional arts. In recent years, the continuation of these traditional arts and performances has been problematic, due to the shrinking population. However, basic measures are being taken, such as allowing women to participate in dances that were originally only danced by men, and as a local residents' effort, the Parents and Teachers Associations (PTA) have been teaching children about these traditional arts. Furthermore, awareness regarding preservation and continuation is being increased through activities such as the creation of documentaries in cooperation with Muroto City.



## **E.2.4 INVOLVEMENT IN TOPICS RELATED TO CLIMATE CHANGE AND NATURAL HAZARDS**

### **Earthquake and Tsunami Risk Reduction**

Near the Nankai Trough, large subduction-zone earthquakes of magnitude 8 have repeatedly occurred every 100-200 years. The most recent example of such an earthquake was the 1946 Nankai Earthquake (M8.0/Mw8.4). Seventy years have passed since this earthquake. Due to the extremely high possibility that a large earthquake will occur in the near future, since its establishment, Muroto UGGp has been involved with promoting understanding of earthquake and tsunami mechanisms. That focus has now shifted towards disaster preparation/risk management education. In addition to the Geohazard Risk Management Outdoor Walking Class mentioned in E.1.5, "Conservation" Team, one of the five Geopark promotion teams, wanting to make sure that everyone would be able to evacuate in the case of a tsunami, collaborated with the Muroto City Social Welfare Council. Together, they started hosting walks to check whether evacuation was possible before the estimated tsunami arrival time. The Geopark is also involved in overnight disaster prevention programs hosted by the National Muroto Youth Outdoor Learning Center and the use of the tsunami shelter for educational activities.

### **Other Natural Disasters**

Strong typhoons regularly strike Muroto UGGp, as it sticks out into the Pacific Ocean. Due to this, Muroto UGGp has a strong culture of preparing for typhoons, and unique



architecture for this purpose (see E.2.2). Furthermore, harsh typhoon rains and earthquakes often cause landslides. Kiragawa Townscape and Kanagi Landslide are used to further natural disaster education in Muroto UGGp. Registering this townscape with its unique architecture (Kiragawa Townscape) and these landslide remains (Kanagi Landslide) as geopark sites allows awareness of them to be shared through educational activities and geotourism. Global warming is said to be connected to an increase in the number and strength of typhoons. In September 2018, the strongest typhoon in the last 25 years hit Muroto UGGp, damaging multiple buildings and part of the walking trail used for guided tours. Until now, disaster education at Muroto UGGp has focused on earthquakes and tsunamis. However, with the increasing strength of annual typhoons, locals plan to incorporate a stronger focus on how they will be able to protect their livelihoods facing these strong typhoons.

## **E.3 MANAGEMENT**

### **Management Structure**

Muroto Geopark Promotion Committee is the official management body of Muroto UNESCO Global Geopark. It is supported economically by Muroto City, the local municipality. The Committee is composed of a wide range of organizations, from local citizens' organizations and businesses to government, educational, and research institutions, all involved in the operation of the Geopark.

The Committee discusses and determines the annual budget and action plan. Moreover, to ensure effective management, we have created a "Promotion Team" within the Committee that evaluates the feasibility of operation plans and promotes specific projects (See Annex 7).

#### **1. Muroto Geopark Promotion Committee**

The Committee is composed of local citizens' organizations, incorporated non-profit organizations, business institutions, national, prefectural and city governments, and university and other research institutions. The Committee discusses and is involved with the management of the Geopark

#### **2. Board**

Members of the Board are selected from the members of the Committee. At Board meetings, ideas are brought forward to be proposed at general Committee meetings, and the direction and future plans of the Geopark are discussed.

#### **3. Technical Advisors**

Muroto UGGp has Academic Advisors from Kochi University, Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Kochi Institute for Core Sample Research, Kochi University of Technology Community Connection Department, and a Kochi Prefectural Assembly member. These advise on Geopark activities from the earth science and general management perspectives.

#### **4. Special Advisors**

The Special Advisors support the Geopark through their individual academic knowledge. Since FY2017, we have added Special Advisors in structural geology, biology, botany, and UNESCO/ international network relations.

#### **5. Muroto Geopark Promotion Team**

The Muroto Geopark Promotion Team plans and carries out projects based on the Muroto Geopark Action Plan (2016 to 2019). The Promotion Team is made up of five sub-teams. Each of the five sub-teams focuses on one of the action plan's five goals:

“Conservation,” “Education,” “Hospitality,” “Business,” and “Promotion.” A sixth team, the “Geotourism Promotion Team,” has existed since 2013, and focuses on tourism promotion.

#### 6. Secretariat

The Secretariat of Muroto Geopark Promotion Committee assists in carrying out the vision of the Committee by facilitating communication between locals, the Committee, associated organizations, and the promotion team; planning and carrying out activities; collecting and disseminating information; and assisting with Geopark information centers.

#### The Muroto Geopark Action Plan (FY2016-2019)

The Muroto Geopark Action Plan is developed based on “Muroto UNESCO Global Geopark Master Plan 2018-2028” (see E.7.1). The Master Plan contains Muroto UGGp’s long-term goals and visions for the coming decade. The Action Plan, a four-year plan, contains a more detailed course of action than the Master Plan’s goals and visions. As mentioned below (see E.7.1 and E.7.3), locals discussed and developed the Action Plan (see Annex 7). Members of the Committee and the partner organizations also participated in meetings to make the Action Plan.

#### Financial/budget status

Muroto Geopark’s budget is funded through city subsidies, donations, and revenue from the shop and programs. The salary, travel expenses, and other routine expenditures of the Geopark Geographer, Geologist, and Coordinator for International Relations are paid through city government subsidies. Since the previous revalidation in 2015, the yearly budget has stabilized at approximately 25,000,000 JPY per year, drawn from the general account. Beyond the general account, the Geopark has a business account (for revenue produced from sales and activities) and a special account (for donations). Money is transferred as necessary between these accounts to allow funding for Geopark activities.

The FY2018 annual budget introduced a new section to provide a subsidy for Committee members to participate in the GGN meeting or Regional Courses on UNESCO Global Geoparks. This encourages locals to participate more in the Geopark activities. The following list gives the budget situation from FY2015 to FY2018.

Fiscal Year	Income	Expenditure	Balance
2015	46,455,610	40,318,844	6,136,766
2016	73,823,143	73,035,087	788,056
2017	56,635,139	48,373,393	8,261,746
2018*	62,498,600	62,498,600	0

\*Since FY2018 finishes at the end of March 2019, it shows the initial budget, not the settled budget.

Table of UGGp staff

No.	Name	Employment	Function	Skill	%time	Gender
1	Koji WADA	Permanent	Secretary General	Social Education	35%	M
2	Katsura YAMASAKI	Permanent	Vice Secretary General	Geohazard Risk Management	25%	M
3	Toru MASAKI	Permanent	Financial Director	Finance	25%	M
4	Hiroko MATSUCHI	Permanent	Administrative Manager	Tourism	100%	F
5	Keita KAWAGOE	Permanent	Infrastructure	Tourism	100%	M
6	Masahiro YOSHIMOTO	Permanent	Accounting	Geohazard Risk Management	100%	M
7	Yugo NAKAMURA	Contract employee	Geographer	Physical Geography (Ph. D.)	100%	M
8	Yui TAKAHASHI	Contract employee	Geologist	Geology (Ph.D.)	100%	M
9	Tsubasa OGASAWARA	Contract employee	Coordinator for International Relations	International Relations (M. A.)	100%	F
10	Sumito TOEDA	Fixed-term employee	Public Relations	Environmental Education	100%	M
11	Keiji OSADA	Fixed-term employee	Development of Guided Tours	Education	100%	M
12	Minda DETTMAN	Fixed-term employee	Interpreter/Translator	ENG/JPN Translation	50%	F
13	Atsuko ONOUE	Contract employee	Reception	Design	100%	F
14	Chise MASAKI	Part-time Employee	Reception		75%	F
15	Kozue TAMOTO	Part-time Employee	Reception		75%	F
16	Ayumi ISHIKAWA	Part-time employee	Reception		75%	F
17	Nao MASUYOSHI	Part-time Employee	Assistant Secretariat		75%	M
18	Ayaka EBIKAWA	Part-time Employee	Assistant Secretariat		75%	F

- Full-time earth scientist: There are two earth scientists (No. 7 and 8 above) who hold PhDs in Geoscience and are employed full-time.
- The role and presence of women:
  - A woman has held the Administrative Manager position (No. 4) since 2011. She plays a significant role in the running of the Geopark. She is the direct manager of all Geopark projects such as guided tours run by the Committee, budgetary control, and personnel distribution.

- The Coordinator for International Relations (no. 10) is in charge of cooperating and building an international network. Since the establishment of the Committee, a woman has filled this post. She also acts as the Muroto UGGp representative to the GGN General Assembly and APGN CC meeting.

- One of Special Advisors, Ms. Kana Furusawa plays a significant role in implementing capacity-building projects, especially in APGN collaborations with other UGGps and Aspiring Geoparks in Japan. She also works very hard on enhancement and promotion of gender-equality among Japanese Geoparks. She is an evaluator of UGGps, dispatched from Muroto UGGp. Moreover, she gives crucial advice on the management of the Geopark, especially on tourism.

- Over 90% of the members of the Muroto City Tourist Guide Association, who actually give the guided tours to visitors, are women. The Vice President, Secretary General, and all section leaders are women. They participate in the decision-making process for management and new tour development. The Association does not depend on any subsidies and manage its activities based on the income from guided tour fees.



- The Federation of Women's Associations in Muroto is composed of local women and it has about 400 members. At a food event held at Muroto Global Geopark Center in 2015, they served local cuisine made with emergency crops mainly eaten at a time of disaster. Those dishes were cooked under the theme of disaster mitigation: how people can survive earthquake and tsunami disasters.

- Soroptimist International of Muroto is a women's association involving voluntary activities to improve women's lives. It has 25 members as of now and operates in a domestic/international network. They introduced Muroto UGGp in their 20<sup>th</sup> anniversary brochure in 2018. They also promote the activities of Muroto UGGp in oral presentations at meetings held all around Japan.

## **E.4 OVERLAPPING**

Muroto UGGp does not overlap with any other UNESCO sites.

## E.5 EDUCATIONAL ACTIVITIES

- Magari Laboratory: An event held at Muroto Global Geopark Center on weekends during school vacations. The main target is elementary school children and younger. They learn about earth and environmental science through crafts and experiments, such as driftwood crafts and sand and mud drawings.
- Experiential Programs focused on environmental education



- Tidal Explorers: Participants learn about coastal topography and observe tidal animals along the coast in front of the Muroto Global Geopark Center. This event is hosted during low tide from March to October each year. Main participants are elementary school children and younger and their parents. They actually touch tidal animals and learn marine ecosystem with instructors.
- Animal Watching!: Participants and instructor observe bats and mice caught in small traps and larger animals caught on motion-sensing cameras. (Animal sightings on this program are added to research on animal distributions.) Dr. Yachimori, the director of Shikoku Institute of Natural History and one of the special advisors of Muroto UGGp, serves as the instructor. This program is focused on elementary school children with their parents. This program is the first research experience for most of these children. Since December 2017, this program has become a joint program with the Muroto Learning Center. It emphasizes another aspect of the program which is experiential outdoor learning program.
- Bicycle Exploration: Participants ride along the coast from Muroto Global Geopark Center to Cape Muroto, biking with an instructor over and through Muroto's unique topography. Participants learn about the geological heritage at several sites along the route. Many middle and high school students participate in this program during school trips.
- Teaching Certificate Renewal Course: Run by the National Institution for Youth Education and the National Muroto Youth Outdoor Learning Center, this course is a prime opportunity to communicate to teachers the importance of sustainable regional development through utilizing geoparks in school education. This course also includes lectures on outdoor and experiential education. The Geopark Geologist and Geographer serve as course lecturers.

## E.6 GEOTOURISM

### New Challenges:

Muroto Geopark Promotion Committee has held Guide Training Course every year since 2008. The 2014 and 2016 guide training courses introduced the “interpretive guiding method” as a new subject. Participants learned that guides should not give one-way information to tour participants. Rather, guides should help those participants experience nature through their senses, and be active agents for guided tours. Many young adults in their 20s and 30s were attracted to this course because participants who finished the course received the “NEAL (Nature Experience Activity Leader)” license. Muroto City Tourist Guide Association developed the new guided tour “Experience Muroto!” using the interpretative method. Many of the tour participants are students visiting Muroto on school field trips. New, young members



of the Association frequently give the tour. The Guide Association's innovation received notice and they were awarded the 12<sup>th</sup> Ecotourism Awards' Special Prize in FY2016.

#### **New Guided Tours:**

At the point of the last revalidation (2015), there were several guided tours that focused on themes such as geological heritage, history, townscape/architecture, and experience-based programs. However, the following new guided tours have been developed over the last 4 years (see also Annex 9):

- 1) Lighthouse Hiking Tour: Participants walk along the pilgrimage route to Cape Muroto Lighthouse, the symbol of Muroto City. They observe various types of vegetation and ecology along the mountain path.
- 2) Potato Digging on the Marine Terrace Tour—located at Sakiyama Plateau and guided by a local potato farmer
- 3) Petit 88-Temple Pilgrimage Route in Sakihama—a light hiking tour
- 4) Help Build a *Binchotan* Charcoal Kiln with a *Binchotan* Charcoal Producer
- 5) Make *Binchotan* Charcoal with a *Binchotan* Charcoal Producer

\*No. 2 to 5 are guided by local producers. They are able to earn supplemental income from tourism by running tours during the industry's off season.

#### **Geotourism Promotion Team**

This team, composed of locals, has worked on developing new guided tours since 2013. Farming-experience tours on the marine terraces and the Walking Tour at the Fishing Village were developed and are run by this team. These tours are run every year during certain seasons as special seasonal tours.



#### **Guide Organization Capacity-Building in Muroto UGGp**

There are 3 guide organizations in Muroto UGGp (see E.7.2. Partnership). Each organization runs a different type of guided tour (trekking tour in the mountains, historical townscape walking tours, and guided tours of the nature at Cape Muroto). In 2017, these 3 guide groups conducted a “brush-up training course” to improve visitors' tour experiences throughout the Geopark. Since July 2016, the Muroto City Tourist Guide Association has also run an English class, with the goal of being able to provide guided tours for overseas visitors.

## **E.7 SUSTAINABLE DEVELOPMENT & PARTNERSHIPS**

### **E.7.1 SUSTAINABLE DEVELOPMENT POLICY**

Since the establishment of the Muroto Geopark Promotion Committee in 2008, Muroto UGGp has been advancing efforts that aim for sustainable city development, in hopes of creating a city where the local residents can continue to live alongside the nature that they are proud of. Muroto UGGp hopes to achieve this by focusing on the following: (1) preservation and conservation of geological heritage (2) utilization of education (3) sustained economic development (4) efforts towards geohazard risk reduction and disaster mitigation. Furthermore, in FY2017 targets were created under each of the five headings:

“Conservation,” “Education,” “Hospitality,” “Business,” and “Promotion” in the Muroto UNESCO Global Geopark Master Plan 2018-2028, establishing a plan for sustainable town development (see Annex 8).

Since the SDGs were adopted at the United Nations Summit in September 2015, we have especially focused on promoting goals linked to Muroto Geopark’s Master Plan, such as “make cities and human settlements inclusive, safe, resilient and sustainable” and “conserve and sustainably use the oceans, seas and marine resources.” To further the understanding of the SDGs, we have set up a special corner at Muroto Municipal Library, in addition to including SDG -related sessions in the Geopark Master Course (See E.1.5 Education Programs).

As mentioned in E.2.4, a sustainable community cannot be achieved in Muroto without creating a community that is resilient against natural disasters. Alongside carrying out regular classes on geohazard risk reduction that target local residents of all ages, guided tours always begin with information about evacuation routes, should a disaster occur. We are aiming for a Geopark that is competent in dealing with both the "hard" side of geohazard risk reduction (focusing on the physical and the technical), as well the "soft" side (focusing on the cognitive and communicative).

## **E.7.2 PARTNERSHIPS**

### **Partnership**

- Muroto Geopark Promotion Committee Board: The board is composed of the representatives of local organizations and companies, such as the head of the Muroto City Commerce Association (Committee Vice President), the head of the Muroto City Tourism Association (Committee Director), and the executive vice president of Daido Takenaka Beverage company (Committee Director).
- Muroto Geopark Promotion Committee: The committee is composed of leading local organizations and enterprises in the fields of tourism, town revitalization, business, PR, and education, etc., such as the Kiramesse Muroto Cooperative, Fbit Communications, JTB Kochi Office, Muroto City Tourist Guide Association, Chikami Ltd., Muroto Shopping Center, and the eastern division of the Kochi Prefecture Hotel and Ryokan Union.
- Official Partners
  - 1) Local guide groups: The following 3 guide organizations run guided tours within Muroto UGGp: “Muroto City Tourist Guide Association,” “NPO Preservation Society of Kiragawa Townscape,” and “Preservation Society of Sakihama Local Forest of Dynamic Wild Cedar Trees.” Muroto UGGp signed a partnership agreement with these three guide organizations, agreeing to work together to run a guide training course, develop infrastructure along guide routes, advertise guided tours, and enhance the education level of local students.
  - 2) National Muroto Youth Outdoor Learning Center: Muroto UGGp and the National Muroto Youth Outdoor Learning Center have collaborated to run several joint activities. Muroto UGGp hosts booths (running activities such as tsunami experiments and microscope experiences) at events run by the Learning Center. During school vacations the two organizations hold geo-cruise programs using the Learning Center’s boat (see E.1.5. Education section).
  - 3) Trilateral Partnership agreement between the Muroto Geopark Promotion Committee, Kochi University of Technology Community Connection Department, and Japan Agency for Marine-Earth Science and Technology (JAMSTEC) Kochi Institute for Core Sample

Research: The three organizations collaborate on joint exhibitions and events at the Muroto Global Geopark Center.

- In association with JAMSTEC, the special event “Deep Sea Exhibition 2016” was held at Muroto Global Geopark Center, along with related events within the Geopark. This event was a joint program under the theme of the deep sea scientific drilling vessel *Chikyu*. Local high school students made art of deep sea marine-animals for the Exhibition. Moreover, a local restaurant served “deep sea fish bowl” for the period while the Exhibition was held. The entire community within the Geopark played the main role to in holding the Exhibition. Many locals gained a valuable opportunity to closely observe *Chikyu*, which was docked at a port nearby.



- 4) Henro Station Meoto Zenzai (Currently under discussion)
- 5) International Soroptimist Muroto (Currently under discussion)
- 6) Tosarikisha (Currently under discussion)
- 7) Muroto City Commerce and Industry Association (Currently under discussion)

- Collaborating Organizations

Aeon Retail Corporation and Marunaka Corporation: The Committee receives a portion of the proceeds from electronic money-paid purchases using the Muroto UGGp WAON card (sold at the Muroto Global Geopark Center and other locations). These corporations also run an event called “Spring Festival” at a shopping mall in Kochi City, promoting Muroto UGGp.

### Branding and Promotion

- 1) Using Muroto UGGp-designed logo: Local farm producers and businesspeople put Muroto UGGp logo stickers on their products. Producers submit requests to use the logo to the Committee, and the Committee allows logo use if the products clear the logo use guidelines set by the Committee.
- 2) “Murotonian” Project: Approximately 70 manufacturers/producers and businesspeople working in and around Muroto UGGp have been selected as “Murotonians.” The Committee has created posters, a map, and a website showcasing their activities. The Murotonians’ products are sold on the Committee’s online shop and at a local specialty shop in Akihabara, Tokyo. Furthermore, their farm/fishery products were served as special dinner menu at an *Izakaya* restaurant in Tokyo as a Muroto UGGp promotional project in 2018.
- 3) “Promotion” Team: The Promotion Team (see E.7.3) invited people to submit potential catchphrases that would be popular with the public and promote the themes of Muroto UGGp. Through general voting and a meeting, the team selected “There’s a reason behind the peninsula,” to be the catchphrase of Muroto UGGp in 2017.

- 4) “Business” Team: The Business Team is working on developing a new souvenir that tells Muroto UGGp’s geo-story. This souvenir will be a set of three different types of Muroto deep-seawater salt mixed with powdered local vegetables, green tea, and *binchotan* charcoal. The team works on this project collaborating with a local enterprise which produces deep-seawater products.



### **E.7.3 FULL AND EFFECTIVE PARTICIPATION OF LOCAL COMMUNITIES AND INDIGENOUS PEOPLES**

#### **Muroto Geopark Promotion Team**

Muroto UGGp Master Plan (2018-2028) established the following five goals: “Conservation,” “Education,” “Hospitality,” “Business,” and “Promotion.” The promotion team is made up of five sub-teams, each focusing on one of these goals. Team members were involved in discussing and creating the Muroto UGGp Action Plan (2016-2019) (see Annex 7), based on the Master Plan. In this way, locals work on Geopark promotion projects following the Action Plan created by the locals themselves. In 2017, each team selected a leader from among its local participants. Team meetings are held regularly. Meetings among the five teams are held twice a year, facilitating collaboration between teams.

#### **Participation of Local Community**

- Geo-Well Meetings (This is a community meeting named after local’s traditional daily habit of chatting around a well while washing clothes or vegetables. See also D., Recommendation 3)

Every year at seven places throughout the City, locals and staff members gather at community centers to share information and exchange opinions about each community.

- Interviews at Senior Citizen’s Clubs  
The president of Muroto City Tourist Guide Association started this project. He visits each community center within the City and interviews older community members, asking them about their memories of natural disasters, town history, and how Muroto has changed over the years.



Note: Muroto UGGp recognizes these locals’ opinions and memories as an important primary source of knowledge about the history and culture of the town. The information from these interviews and meetings is used for developing guided tours and anthropological research.

#### **Participation of the Younger Generation**

Muroto UGGp creates many forums in which locals can gather and participate in Geopark activities (such as the promotion teams, guide organizations, etc.). Recently younger adults who have returned/moved to Muroto after living in larger cities have started to participate in such forums and communities. Through involvement with Geopark promotion, especially through the fields of education and tourism, young people have begun to use these forums as avenues for making a living in Muroto City.



## E.8 NETWORKING

- GGN Conference/ Regional Courses
  - 1) Muroto UGGp has been present at every GGN and APGN meeting since 2012.
  - 2) Muroto UGGp has been present at every Regional Course on UNESCO Global Geoparks (hosted by Langkawi UGGp) since 2016.

In 2018, Committee members, including local guides, participated in the GGN meeting in Italy and the Regional Course in Langkawi, through the subsidy mentioned in E.3 Financial/Budget Status. At the GGN meeting in Italy, the local guides gave an oral presentation about their activities as guides.

- Joint Projects: “Capacity Development to Stimulate Networking Activities Between Geoparks in the Asia-Pacific Region”
  - Coordination and participation in the project as a project subleader in 2016
  - Collaborated with other UGGps in Japan to implement a project that invited 7 Aspiring Geoparks in the Asia Pacific region to the Japanese Geoparks Network Conference in 2017
  - Ran a joint workshop in Satun Aspiring Geopark (at that point) to assist them and shared experiences on Geopark management and local involvement in 2017.
- Sharing experiences at Capacity Building Workshops and Meetings:
  - April 2018: Introduced Muroto’s guided tours at the Capacity Building Workshops for Geoscience Popularization in Hong Kong UGGp.
  - May 2018: Shared information on Geopark management and building a good relationship with the local community at the APGN UNESCO National Commission at Oki Islands UGGp.
- Evaluation Missions: Muroto UGGp staff carried out evaluation missions in 2017 and 2018.
- Supporting women working at a local craft shop in Qeshm UGGp, Iran: Collaborated with other UGGps and Aspiring Geoparks in Japan to make a poster with supporting messages and sent Geopark goods for sale at their craft shop.
- Signed partnership agreement with Langkawi UNESCO Global Geopark Muroto UGGp signed a partnership agreement with Langkawi UGGp on October 2018. The two geoparks are now discussing several joint programs such as a short-term exchange program between local high school students.



### Regional Networking:

- Kochi Museum Network: This network is composed of museums and equivalent facilities. Members share information and experiences at regular courses and meetings. Guided tours and events run by Muroto UGGp can be publicized on the Network members’ webpages and in their journals.



## **E.9 SELLING OF GEOLOGICAL MATERIAL**

Muroto UGGp and its related organizations and individuals are not involved in the trading of geological material.

## **F. CONCLUSION**

Over the last 4 years, Muroto UGGp has established multiple projects based on the recommendations received during the last revalidation (2015) and on the Muroto UGGp Master Plan. The results of the activities over the past four years are as follows:

[Achievements]

- Based on the recommendations received during the 2015 revalidation, Muroto UGGp has reviewed its Geopark sites and management structure. We have also worked to strengthen our network with other UGGps.
- By developing new Geopark sites, we have broadened public of the geological and cultural heritage in these locations. This has contributed to a rise in tourism and an increase in the awareness of the importance of conservation among locals and visitors.
- As local elementary, middle, and high school students have begun to study the Geopark, they are developing a stronger understanding of their hometown, and a sense of pride in it.
- The Muroto Global Geopark Center exhibits were revised and 10 facilities related to the Geopark were designated as Muroto UGGp information centers. These developments have made it easier for visitors to find information and develop plans for their visits to the Geopark.
- A tradition of Geopark activities led by locals has been created.
- Through increasing the contents of the Guide Training Course and the number and type of guided tours, interest in guiding among the younger generation has been increased. The average age of guides has decreased, ensuring the sustainability and continuity of the guide organizations.
- Locals, including local guides, participated in the GGN meeting (Adamello Brenta UGGp) and Regional Course (Langkawi UGGp) and shared their experiences with other UGGp members. They have also played a vital role in the capacity building of other UGGps and Aspiring Geoparks.

[Future Challenges]

- Developing a new marketing strategy, especially focused on tourism marketing, to enhance economic activities
- Branding farm products and other goods produced within Muroto UGGp