



Progress report 2019 - 2022

Name of UNESCO Global Geopark (UGGp): **Toya-Usu**

Country: **Japan**

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

A. GENERAL INFORMATION

Surface area in km ²	1,064 km ²
Population	46,899 (as of April 2022)
Year of acceptance as UNESCO Global Geopark	2015
GGN Year of membership in the Global Geoparks Network (before the establishment of the UGGp label in 2015)	2009
Previous revalidation date(s) and name(s) of previous evaluator(s)	25-29 July 2019 Patricio Melo, Henning Zellmer
Contact person (name, position, e-mail)	Nire Kagaya, Deputy Manager kagaya.nire@town.toyako.hokkaido.jp
Website (please provide URL)	https://www.toya-usu-geopark.org https://www.toya-usu-geopark.org/english/
Social media (please provide list of all channels used)	Facebook(JP/EN), Youtube and Instagram

B. LIST OF DOCUMENTS SUBMITTED BY THE UGGp

- 01 Progress Report 2019-2022
- 02 Document A
- 03 Document B
- 04 Appendix
- 05 GGN-Geopark Annual Report (2019, 2020, 2021)

C. MAP OF THE AREA



D. IMPROVEMENTS MADE ON PREVIOUS RECOMMENDATIONS

UGGp revalidation assessment 2019: Green

PREVIOUS RECOMMENDATIONS

[Consider improving UGGp territory visibility by replacing old interpretation panels ensuring the consistent use of the adapted UGGp logo and name.](#)

This recommendation might be intended that we should update interpretation panels according to the latest UGGp map with reduced area, as well as improve visibility by ensuring the consistent English name use of the UGGp and displaying the UNESCO logo, as pointed out in the 2017 revalidation.

A new area map is under preparation, assuming that the area reduction will be approved by the UGGp Council meeting. With regards to the UGGp name consistency, most of the publications/signages now apply 'Toya-Usu UNESCO Global Geopark', the official English name of the UGGp. Previously, 'Toya Caldera and Usu Volcano UNESCO Global Geopark' was also used, causing some confusion.

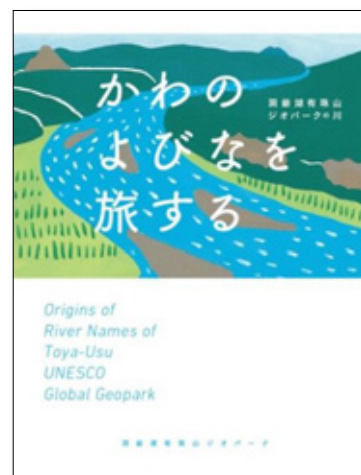
The official UNESCO logo mark has been placed since before the recommendation, and we will proceed on placing the present UNESCO logo, which was renewed in 2021, in due course.

Strengthen inventory activities in the areas of research studies, conservation and promotion of local intangible heritage, specifically focusing on the Ainu language and culture.

This recommendation might be intended that we should complete the picture book project on place names of the area titled “Origins of River Names of Toya-Usu UNESCO Global Geopark”, which we explained during the 2019 revalidation. Also, we were requested to continue to further promote Ainu language and culture.

With a grant from the Ainu People's Cultural Foundation, the Toya-Usu UGGp Council published 3,000 copies in December 2020 as scheduled. We have distributed the copies to local junior high schools for learning about Ainu ethnics/culture in social studies classes. We also placed the copies at over 500 locations where people stay and gather, such as libraries, Ainu museums, banks/financial institutions, medical institutions, beauty salons, and cafes, so that they have more opportunities to notice and read one.

In conjunction with the picture book production, we created a database on Ainu-origin place names within the region (231 locations), and organised a lecture for local communities based on the database information. The lecture, “Ainu-origin place names in the Toya-Usu UNESCO Global Geopark”, was held in 2021 at Date Historical Forest Culture Centre and Sobetsu-cho Community Exchange Centre *Yamabiko*.



Origins of River Names of Toya-Usu UNESCO Global Geopark

Consider the opportunity to support the 'Toya Summer Festival' as a protected part of the regional intangible heritage.

This recommendation might be intended that we should clarify the position of intangible heritages preserved within the UGGp region and seek the opportunities to support them. During the last revalidation, we showed the evaluators a local festival in Toyako Town on site.

The culture of our region is a mixture of indigenous Ainu culture and the culture brought in by the migrants from Japanese mainland to Hokkaido during the end of 1800s. Also, there are newer festivals, crafts and techniques that were introduced or devised after 1925. As a result, we have a number of potential intangible heritages. In response to this recommendation, we have been making a list of intangible heritages, which consists of those designated by the member municipalities under individual ordinances on cultural heritage preservation, and other potential intangible heritages in the region.

Regarding the support of intangible heritages, we continue efforts to facilitate understanding of Ainu language and culture through the publication of the picture book and the organisation of related lectures. It is followed by the opening of municipal museums/facilities focusing on Ainu and traditional Japanese cultures in the region, such as Date City Museum of History and Culture (opened in 2019), Toyako Ainu ethnic symbiosis facility *Uturano* (in 2021), and the Toyoura Ainu culture information centre *Ikori* (in 2022). We are planning to collaborate with these organisations to organise lectures on Ainu culture and other activities. Meanwhile, we have introduced the assets brought in during the modern era and preserved in the UGGp region as the intangible

heritages of traditional Japanese culture; lion dances, taiko drums, indigo dyeing, and swordsmithing related to the samurai culture, in particular those of the Watari Date family.

[Consider sharing with the GGN network, the volcanic risk mitigation, Volcano Meister System developed by UGGp.](#)

This recommendation might be intended that we should share with the UGGp network our knowledge and experience on Toya-Usu Volcano Meisters, leading figures for regional disaster reduction authorised by the Toya-Usu UGGp Council and Hokkaido Prefectural Government. We have extended out information dissemination practices accordingly.

We have made presentations on the Volcano Meister system many times at GGN and APGN international conferences, and provided information at request of UNESCO's Section on Earth Science and Geo-Hazards Risk Reduction, for UNDDR (<https://www.preventionweb.net/news/unesco-global-geoparks-celebrate-international-day-disaster-risk-reduction>), the UNESCO website (<https://en.unesco.org/news/asian-unesco-global-geoparks-celebrate-international-day-disaster-risk-reduction>) and various publications (https://en.unesco.org/sites/default/files/drr_leaflet_good_practices_toyausu_ugg.pdf). In view of accelerating information provision, we have the Disaster Risk Reduction Culture Global Project as one of the 2019-2022 priorities in the Master Plan (<https://toya-usu-geopark.org/english/council>; on Page 74). Under the project we have posted multilingual information on the UGGp official website, distributed multilingual leaflet on Volcano Meisters, and promoted disaster reduction-focused educational tours. Additionally, we posted an article on Volcano Meisters to the GGN Newsletter (2022 ISSUE 1).

[Consider the opportunity to develop new UGGp infrastructures which can be utilized to exhibit and conserve disaster remains.](#)

This recommendation might be intended that we should consider new route development of Nishiyama Foot Route to enhance the educational value. The evaluators toured the trail and suggested the development should take into consideration of conserving the existing sites and disaster remains.

The Nishiyama Foot Route is the route that shows the craters made during the 2000 eruption. Although the former municipal road and the former national highway used to be located in parallel, the present trail follows only the former municipal road. There are also potentially valuable educational resources alongside the former national highway such as craters, fault lines, the remains of direct eruptions and heavy machinery, but they have been left untouched and thus closed to public since the eruption. Therefore, many of school officials and tour guides have requested that the area should be accessible to the public, too.

In response to this recommendation, we repeated field surveys and discussions with Japanese Ministry of the Environment and landowners. We have just completed designing a new route. Currently, we are taking necessary application process to make it accessible within 2023, as the site development that would change the use of parkland necessitates the approval of the Ministry of the Environment. The renovation must ensure the visitors' safety and minimize the alteration of to the geological form.

The policies on the preservation of major sites and disaster remains will be described in E.1.1.

E. VERIFICATION OF UGGp CRITERIA

E.1 TERRITORY

E.1.1 GEOLOGICAL HERITAGE AND CONSERVATION

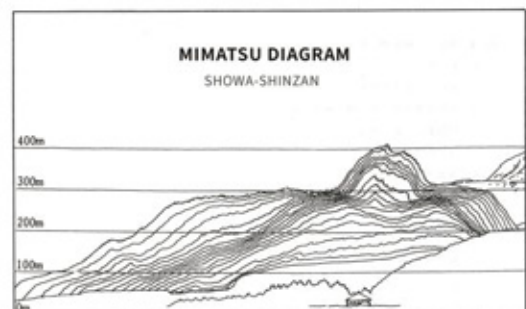
Updates and international value of geological heritage



The Toya Caldera and the pyroclastic plateau that surrounds the caldera were formed by a massive eruption 110,000 years ago. Lake Toya, which is almost circular in shape with a diameter of 10 km, appeared when the water pooled there. Another eruption of 45,000 years ago created Nakajima, a group of lava domes and maars, in the centre of Lake Toya. Mt. Usu began its activity 20,000 years ago. 8,000 years ago, it collapsed in a southwesterly direction, partly plunging into the sea and leaving a hummocky topography at the mountain's foot. After the collapse, the mountain remained dormant for 7,500 years until the 17th century, when it resumed erupting in 1663. Since then, the mountain erupted nine times, according to literatures, geological surveys and observations.

The 1910 eruption created at least 45 craters at the northern foot of the mountain, giving rise to Mt Meiji Shinzan (Mt Yosomiyama). Dr Omori Fusakichi, a professor at the Tokyo Imperial University, brought a pendulum seismograph to the active volcano to observe Mt Usu. His survey, which was done for the first in the world, led to the discovery of 'volcanic earthquake' and 'volcanic tremor'. This region is today known as the 'birthplace of modern volcanology'.

During the 1944 eruption, Mimatsu Masao, a local postmaster, kept in contact with scientists and recorded the number of earthquakes and draw the developments of the landform from the same point. Mimatsu superimposed a series of sketches, which was critically acclaimed later at the International Volcanological Congress in Oslo in 1948 as a detailed record of how a volcano that called 'Showa-Shinzan' develops. The diagram was named the 'Mimatsu Diagram'.



In 2000, a series of felt earthquakes and mountain fluctuations were observed, leading to a forecast of imminent eruption and the evacuation of more than 10,000 residents before the eruption began. The eruption occurred at the foot of Mt Nishiyama and Mt Konpira, where residences and national roads were located, resulting in a creation of a total of more than 60 craters. Nevertheless, there were no casualties because the evacuation was completed beforehand.

We define its international value of the area in terms of geoscience as follows: Founded on the geology created by the volcanic activities that led to the birth of Hokkaido, this UGGp best showcases the trace of volcanic activities at the caldera eruption-origin Lake Toya and the still-active Usu volcano, which still erupts every few decades, within an accessible distance. The region has also successfully mitigated disaster damages based on 350 years of eruption records and more than 100 years of internationally valuable volcanic research findings. The disaster risk reduction culture continues to be well-nurtured to be passed into the future.

Conservation practice

The Toya-Usu UGGp's conservation policy for major Geopark sites and disaster remains is designed to preserve their geoscientific and educational values. The policy was determined in collaboration and consultation with Japanese Ministry of the Environment, which administers national parks. Cutting plants is strictly restricted in the reserves of national parks, but Toya-Usu UGGp is permitted to cut excessive weeds and plants in the designated area. In 2018, the Ministry of the Environment published the Report on Conservation and Utilisation around Mount Usu, categorising the special reserves around Mt Nishiyama foot craters into the topographic/geological conservation zone and the vegetation conservation zone. It was intended to protect the academic and educational values of the topographic and geological sites and remains in the UGGp. A part of the topographic/geological conservation zone is allowed to remove plants to preserve the area's craters, faults, uplifted landforms, ballistic ejecta and impact craters, which are the remains of volcanic activities and destroyed man-made structures.

In this allowed area, weeding is carried out by the council and Toyako Town (see " Notable conservation practices" below), which has been approved by the Ministry of the Environment to operate Nishiyama Crater Park Project.

We see the disaster remains in the region as excellent educational resources that people can learn about the system of 'destruction' and 'recovery' of the earth. By categorising these remains into (1) 'volcanic activity monument' to learn about the destructive power of volcanic eruptions and disasters, (2) 'vegetation succession/vitality monument' to learn about the resilience of ecosystems, and (3) the combination of (1) and (2), we seek the best use of individual remains.

In 2019, we revised the site list, doubling the number of listed sites to 72. Also, we clarified the categorisation of those sites so that all sites are defined as one of geological, ecological and cultural (historical) sites. We introduced the site monitoring form in 2020 to assess all sites with 18 indicators in six fields (scientific value, educational value, tourism value, conservation and site sustainability, information development and safety and accessibility). This aims to regularly monitor their status for effective conservation efforts.

Notable conservation practices

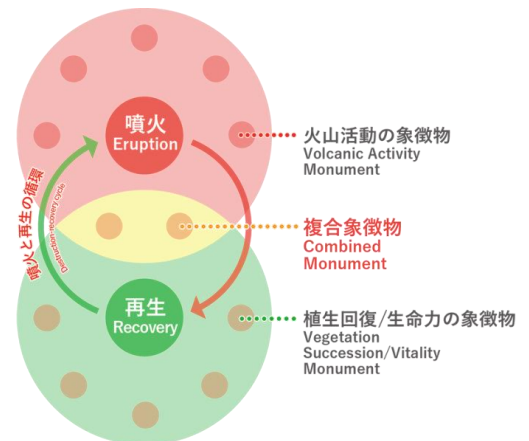
[Toya-Usu UGGp Council, member municipalities]

Resident Committee leads volunteer-based conservation activities around disaster remain sites (2013-)

Weeding of the former municipal road Izumi Park Line (2015-)

Weeding along the former National Highway 230 (2018-)

Categories of disaster remains



[Voluntary practice by private organisations]

(Toyako Town Construction Association)

Members have volunteered to maintain Nishiyama Foot Route since the 2000 eruption. Every spring, they repair damaged road surfaces and safety fences prior to the opening of the trail.

(NPO Geopark Friends)

Members clean Mt Donkoro observation outcrop, where the scoria of Mt Donkoro and the accumulated ejecta from Mt Usu can be observed, on a regular basis. They also weed off along the Yosomiyama walking trail and prune branches at the observation spot at the mountain summit every year, to conserve the landscape. The Yosomiyama walking trail runs around the craters of Mt Yosomiyama, which was formed by the 1910 eruption of Mt Usu. They additionally install ropes along the Mt Orofure's trail to protect valuable alpine plants, and maintain the Showa-Shinzan Railway Bridge Remnants Memorial Park.

(NPO Toya-Usu Volcano Meister Network)

Members work on an individual basis (e.g., by collecting garbage) to make sure the geosites are kept clean and safe. They are responsible for geosite patrol activities: When illegal disposals and damages needing repairs by professionals/engineers are found, they report to the Toya-Usu UGGp Council.

E.1.2 BOUNDARIES

The boundary of the Toya-Usu UNESCO Global Geopark is the outline of the four member municipalities: Date City, Toyoura Town, Sobetsu Town, and Toyako Town combined. The Toya-Usu UGGp Council publicizes this boundary via multiple media including general information panel, UGGp website, and brochure, with the aim of familiarising visitors and residents within the UGGp region so that they can well-recognise they stay in the Geopark.

E.1.3 VISIBILITY

Second phase of Geopark Signage Development Plan

The UGGp formulated the Second phase of Geopark Signage Development Plan in 2018, providing for basic rules for installing and managing the signages. This plan is intended to increase the visibility of the region as a UGGp-accredited region, familiarise visitors and residents with the fact that they stay and live in the Geopark, and help visitors travel smoothly and obtain information on each geosite.

The plan defines the design rules and components for six types of signs: welcome sign, facility/site guide sign, facility display sign, general information panel, site interpretation panel, and banner, as well as sets out the guidance on effective installation to appeal to the visitors.

Progress in improving visibility

The UGGp actively improves the visibility of UNESCO-accredited Global Geopark site by showing the official UNESCO logo on the UGGp's various signs and publications. We updated welcome signs and facility/site guide signs in 2018 and 2019, followed by the work on general information panels



Welcome sign

and interpretation panels from 2020 to 2022.

Welcome signs have been installed at 11 locations by 2022, including the boundary of the UGGp region on national roads, motorway exits, railway stations, a bus terminal, and Lake Toya Hot Spring facilities. Four signs will be added by the summer 2023. Site/facility guide signs, installed on car roads (national, prefectural, and municipal) now add the UNESCO logo in 273 locations, with the cooperation of the administrators of respective roads. Meanwhile, 27 general information panels and 49 official interpretation panels have been redesigned.



General information panel

Multilingual support is provided in five languages for general leaflets and websites, and in two languages (Japanese and English) for other major items.

Visibility improvement for local communities

In order to improve visibility in local communities, the Geopark-designed mark/logo appears on various media that are found on a daily basis; for example, banners at public facilities, Michi-no-Eki (roadside rest station), and railway stations, advertisements on local buses, electric signages on national highways and traffic safety campaign flags standing on roads. Meanwhile, the Geopark-designed illustration with the catchphrase of “Date City/Toyoura Town/Sobetsu Town/Toyoko Town belong to the UNESCO Global Geopark” is printed on plastic waste bags, so that the residents in the municipalities will easily recognise the fact and also become more aware of separating wastes to protect the environment.



In 2021, all of 53 mail delivery vehicles running in the UGGp region were decorated with Geopark stickers, and 13 post boxes were wrapped so that people were easily reminded of the Geopark brand image. Nine post offices launched the Geopark Information counter where Geopark brochures and maps are available, and sold stamp sheets with the design of the harvests accessible in the UGGp. These efforts were the collaboration between the Geopark and the post offices. With the message “Let’s send letters to those we miss”, it also reminded people of people’s emotional ties under the pandemic.



E.1.4 FACILITIES AND INFRASTRUTURE

In the second phase of Signage Development Plan (see above), base facilities fall into three categories: (1) main museum (nine locations including Toyako Visitor Center), (2) information centre (11 locations including Michi-no-Eki) and (3) other Geopark-related facilities (exhibition facilities, privately-operated tourist facilities). At the main museums, a UNESCO certificate and explanations on UGGps are displayed and UGGp metal plates and stickers, general information panels and swing banners are placed to confirm that the facility is Geopark-related. Furthermore, railway stations and a bus terminal are defined as (4) gateway facilities, and town halls and exchange centres as (5) other public facilities, where Geopark reference materials are

available.

The Toyako Tourist Information Centre serves as a PR hub, named the 'Geoparks: Blessings of the Earth' Exhibition, launched in 2014 and updated accordingly. The floor consists of the permanent exhibition, which provides an overview of the UGGp system and its network, and the workshop space where exhibition-related events and training programmes take place. More recently, the Nakajima Island and Toya Lake Forest Museum was opened in Nakajima, encompassing a Geopark exhibition.

E.1.5 INFORMATION, EDUCATION AND RESEARCH

Promotional media

After the previous revalidation, the Toya-Usu UGGp Council published the "Origins of River Names of Toya-Usu UNESCO Global Geopark" (2020), Geopark Walking Map (Volcano Trails in 2020, History and Culture Trails in 2021, Forests and City Trails in 2021), laminated version of "Here's What's Great about the Geopark! (2021) "for set in guest rooms at hotels, "Geopark Partnership System (2022)", and "FOLLOW US! e-maganize/flyer (2020)". On municipal level, Toyako Town published "Water's Journey: Considering the Water Environment from the Perspective of UNESCO Global Geopark's Practices (2020)", "Traveling in the sky and water, water supports life(2020)", "The Mysteries Lurking in the Toya Caldera(2020)" and "Unlocking Mysteries (2021)".

Besides, we publicize multilingual versions of Toya-Usu Geopark leaflet (in five languages), "Toya-Usu Volcano Meisters" (in Japanese and English), and "Here's What's Great about the Geopark!" (in Japanese and English). These publications are updated, re-printed and distributed where necessary. We have also published the "Toya-Usu Geopark Guide Series" (eight Japanese editions, three English editions), each of which is sold with 200 JPY at base facilities and also purchasable online (<https://www.toya-usu-geopark.org/guidebook>)

Educational programmes

The UGGp publishes school learning materials to support the schools. The "Toya-Usu Geopark Outdoor Learning Textbooks (Volcanoes, History and Culture, Birth and Succession of Forests" correspond to Japanese MEXT's course of study guidelines, and are distributed to local schools every year. The textbooks, accompanied with a booklet for teachers, are also available online. Since they became available in 2019, the data has achieved 5,000 downloads annually, while the actual use of the textbooks may be several times greater than this as school teachers are highly likely to download the data in order to photocopy and give to their students for educational trips. (URL: <https://www.toya-usu-geopark.org/text>)

Geopark practices in local schools

Lecturers dispatched to primary and junior high schools

There are 14 primary schools, 9 junior high schools and 4 high schools in the UGGp region. Additionally, two high schools outside of the region (Muroran City) are committed to Geopark education. At the request of these schools, the Council staff give lectures on Geoparks; and the Council dispatches Toya-Usu Volcano Meisters to provide classes on disaster risk reduction. A total of 48 Volcano Meisters visited 12 schools between April 2021 and March 2022.

Cooperation with Hokkaido University, Sapporo

The Toya-Usu UGGp Council and Hokkaido University Museum signed the mutual cooperation agreement, thereby the Council's geoscientists are appointed as the researcher in the museum's archive department, granted with access to research materials and equipment. The two also place leaflets in the partner's facilities and post articles on respective journals. Hokkaido University (Division of Earth and Planetary System Science, Department of Earth and Planetary Sciences, Faculty of Science; Institute of Seismology and Volcanology under the Faculty of Science; Group of Conservation on Natural Environments, Section of Integrated Environmental Science, Graduate School of Env. Science) also provide support for Geopark activities, by dispatching academic advisers and Geopark lecturers.

Cooperation with Hokusho University, Ebetsu

Yokoyama Hikaru, a professor at Hokusho University, is the chairman of the Council's Education Promotion Committee. His seminar class regularly conducts inspection tours in the UGGp, while his students are involved as interpreters at the Hokkaido Geopark Festival, an joint event of Hokkaido-based Geoparks, at the Hokkaido Museum in Sapporo. He also tutored the students' graduation projects, such as the "*Ishitachi no Ohikkosh*" picture book (2022), featuring the stones of the UGGp region, and the worksheet for the 'Geoparks: Blessings of the Earth' exhibition, as an alternative for Geopark tours in case of rain (2022).

Disaster risk reduction education by Volcano Meisters

In 2019, Volcano Meisters gave lectures and/or guide services to 16,780 people, including those for educational trips from outside of the UGGp region, in 683 occasions. The Meisters organise the Toya-Usu Volcano Meister Network, which obtained an NPO status in February 2022. This new status has strengthened the organisation structure to accelerate local disaster risk reduction efforts by more focusing on lecture activities.

Research findings

For new research papers relevant to the UGGp, see the publication list in the Appendix.

Matsumoto and Nakagawa (2019) elaborated the progress of nine eruptions of Mt Usu. According to them, the Ko-Usu lava dome, formed by the eruption in the end of the 17th century, once collapsed in 1822 but re-emerged afterwards.

The Toya-Usu UNESCO Geopark Promotion Council (2019) interviewed the researchers related to Ainu studies in the region, studied the facilities and literature, and created the database of Ainu-origin place names. The database resulted in the publication of "Origins of River Names of Toya-Usu UNESCO Global Geopark".

Kaneko (2020) elucidated the impact of high population density of Hokkaido Sika deer on the subsoil of the closed ecosystem in Lake Toya's Nakajima. It clarified that the physical and chemical properties of the ecosystems and soil in the substratum can be significantly altered when the deer population increases and remains a high density for a long period of time. The study also suggested that the impact on the soil is reduced when the deer population density is also smaller.

The Council jointly worked with Okuno et al. (2020) by helping to remove collapsed sediment around outcrops with the heavy machinery.

Since the last revalidation, scientific papers have been published in the fields of geology/volcanology, pedology, agriculture, disaster preparedness and mitigation, archaeology, biology, pedagogy, tourism, and indigenous people studies.

E.2 OTHER HERITAGE

E.2.1 NATURAL HERITAGE

The UGGp partially overlaps the Shikotsu-Toya National Park (approximately 20% of the entire area), administered by Japanese Ministry of the Environment. The director of the Shikotsu-Toya National Park Administration Office of the Ministry of Environment participates as an advisor to the council, and the branch office is situated in the Toyako Visitor Centre. The office staff joins the education promotion committee, working with the Council on a regular basis. Mt Showa Shinzan is Japanese special natural monument, and Kamuychashi Historic Park is a scenic cultural property *Pirikanoka*, both designated by Japanese Agency for Cultural Affairs. Many other areas are Hokkaido Government-designated environmental

The map of the Shikotsu-Toya National park



green conservation area, natural landscape protection areas and wildlife sanctuaries.

The presence of rare bird species such as white-tailed eagles, Steller's sea eagles, and black woodpeckers has been confirmed in the region. Phased vegetation succession is also observed in the region because of repeated eruptions in different sites. Starting with the herbaceous vegetation emerged on the sites affected by the 2000 eruption, we can find tall perennial grasslands and young Japanese popular forests around the craters made in 1977-78, middle-aged forests of Japanese poplar at the foot of Mt Showa-Shinzan created during the 1944 eruption, matured Japanese popular forests in Mt Yosomiyama craters created during the 1910 eruption; and the forests where the climax species of Japanese oak is invading at the sites of the 1822 and 1853 eruptions. Touring these sites allow the visitors to learn exponentially about how the vegetation succession proceeds and how long each succession requires. It is a rare location in the world that has good access to the changing forest ecosystems. This is a great route for ecological tours. In order to support high school students' outdoor learning, the Council has published "Toya-Usu Geopark Outdoor Learning Textbooks: Birth and Succession of Forests" which is also downloadable on the UGGp website (URL: <https://www.toya-usu-geopark.org/text>).

E.2.2 CULTURAL HERITAGE

There are many archaeological sites from the Jomon and Ainu culture periods (circa, 14,000-300 BCE) alongside the seacoast of the region. Among them are the two historic sites, Kitakogane Shell Mounds and Irie-Takasago Shell Mounds, which are the remains of settlements where people lived for more than 2,000 years. The sites also constitute the Jomon Prehistoric Sites in Northern Japan, a UNESCO World Cultural Heritage registered in July 2021. What we can find in the settlements, such as shell middens and ritual sites, illustrates that volcanoes and natural environment of the area have long influenced and sustained people's lives.



E.2.3 INTANGIBLE HERITAGE

The UGGp has sought/build relationship with the indigenous Ainu people. Since 2017, the UGGp members have participated in the *Kamuynomi Ichalpa* (Prayers to the Gods and ancestral offerings) festivals in Toyoura and Toyoko Towns. In 2018, Uji Yoshiyuki, the chairman of Toyoura Ainu Association gave a lecture titled "Ainu Place Names in the Toya-Usu UGGp and Ainu Traditions within the Area" (<https://www.toya-usu-geopark.org/archives/14232>), creating an opportunity for Geopark stakeholders to learn about the Ainu culture. These efforts guided us to the publication of the "Origins of River Names of Toya-Usu UNESCO Global Geopark", which was distributed to more than 500 locations, followed by two lectures intended for local people in 2021 with 124 participants in total. Meanwhile, traditional Japanese culture was brought in to the UGGp region during the modern era, and preserved to date as well. Such intangible heritages include lion dances, taiko drums, indigo dyeing, and swordsmithing related to the samurai culture, in particular that of the Watari Date family.



Disaster risk reduction culture

The 2000 eruption of Mt Usu extensively damaged the communities, but we successfully had no casualties since the evacuation was completed before the eruption. This was the result of the

cooperation between the local administration and volcanic experts, in addition to the prompt response taken by residents. It is attributed to a number of our predecessors, who struggled with volcanic eruptions for over 100 years ago (see E.2.4). We call what local people have handed down to mitigate similar disasters the disaster risk reduction culture, placing as one of the major intangible heritages in the region.

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

Efforts on climate change

In Kitakogane Shell Mounds and Rebunge Coast, the traces of coastlines when it was warmer than today remain, telling the visitors the sea level has risen over tens of centuries due to climate change. These sites are featured in our guidebooks and guided tours as a valued educational resource.

Sasaki Satoshi was the geoscientist of the UGGp from April to July 2022, currently working as researcher at the Institute of Space and Earth Environment, Nagoya University. He has been studying Ostracoda in the area's coastal site. His research may help reveal a series of environmental changes from the past, as well as the impact of the climate change of recent years.

Learning from our predecessors and transmitting to the future

In the 1910 eruption of Mt Usu, Iida Seiichi, then Chief Police Officer in Muroan City, evacuated some 16,000 residents prior to the incident. He had expertise from the eruption of Tarumae Volcano in the previous year, and took lectures given by Professor Omori Fusakichi of Tokyo Imperial University, a world-renowned authority on seismology and volcanology. Based on these experiences, Iida convinced local council members to evacuate people in advance. It was the world's first case of advance evacuation from a volcanic eruption recorded in the history.

In the 1944 eruption, Mimatsu Masao, local postmaster, recorded in detail the number of earthquakes following volcanic activities and the growth of lava domes. The superimposed diagram of his sketches was highly praised as the Mimatsu Diagram at the International Society of Volcanology in Oslo, Norway, in 1948. After the eruption ended, Mimatsu purchased an eruption-formed mountain at his own expense, intending to help farmers who lost their land and to preserve the mountain, Mt Showa-Shinzan.

Iida's action of a century ago remains effective today when we need to mitigate disaster damages, while Mimatsu's action demonstrated the geological heritage preservation for the social sustainability 80 years before the UNESCO Global Geopark initiatives were introduced. Their achievements have been passed on to present and future generations through the efforts of the Toya-Usu Volcano Meisters (see below).

Toya-Usu Volcano Meister certification system

The UGGp certification of Toya-Usu Volcano Meisters began in 2008. Certified Meisters work as the leaders of communities' disaster risk reduction efforts and the communicators of UGGp attractions. The Meisters cover a wide range of occupations, specialties and ages: they include tourism association staff, hotel managers, ropeway operation staff, nature guide, mountain guide instructor, school staff, municipal council staff, local legislative assembly member and incumbent mayor. After the last revalidation, the Council certified two candidates in 2019, three in 2021, and eight in 2022 (Note: there were none in 2020 because the certification exam was cancelled due to the pandemic). There are 64 Meisters as of November 2022, working to promote the disaster risk reduction culture. (URL: <https://www.toya-usu-geopark.org/english/meister/>).

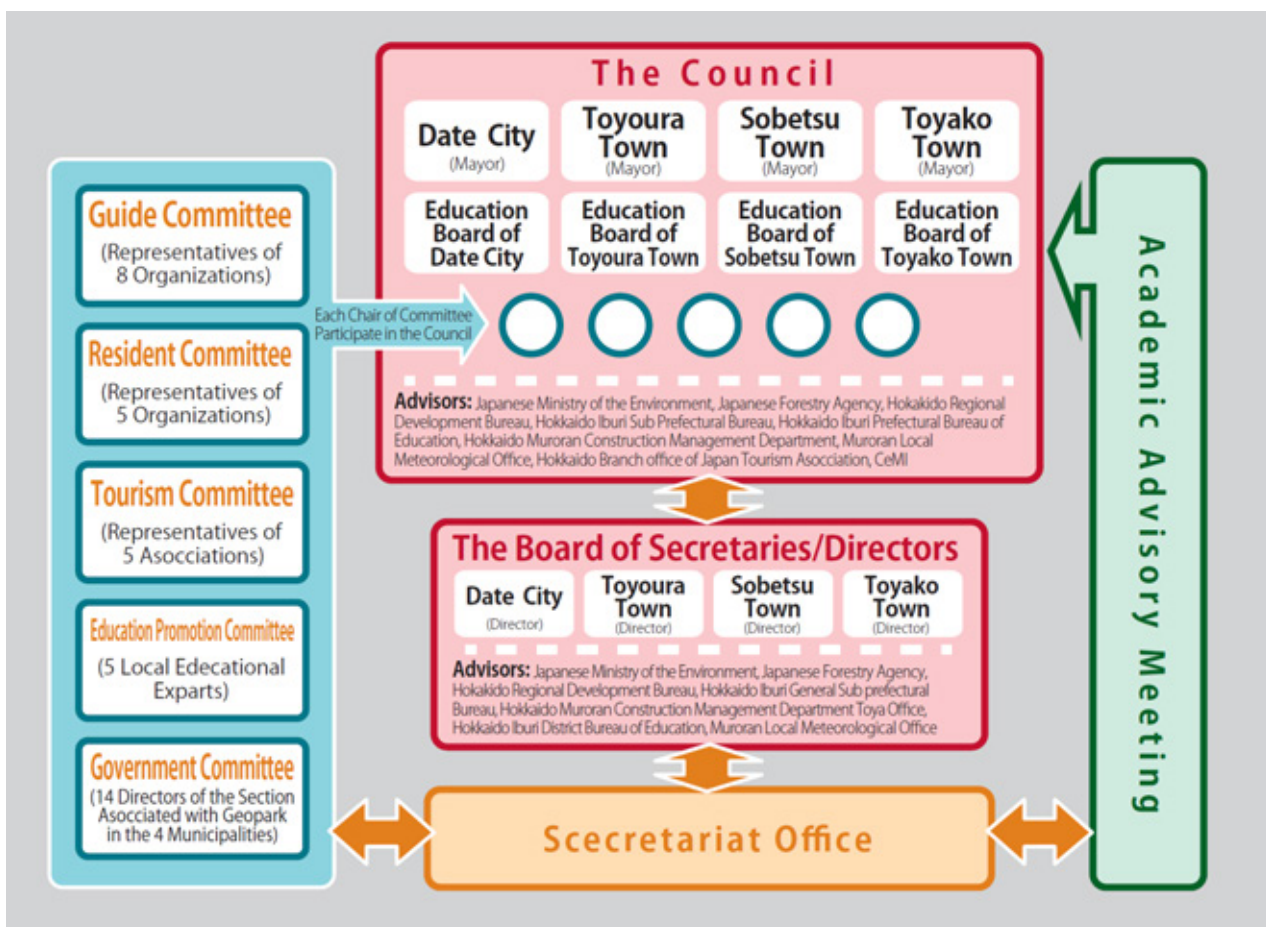


E.3 MANAGEMENT

The Toya-Usu UGGp Council has the independent budget, funded by the member municipalities and subsidized by Hokkaido prefectural government and other organisations. The Council's financial status over the four years is as follows (excluding the income from guided tours and admission fees of facilities).

FY	Project expenses (JPY)			Personnel expense
	Income	Expense	Balance	
2019	17,371,872	16,425,681	946,191	24,893,852
2020	17,110,698	12,430,262	4,680,436	25,462,566
2021	16,349,585	12,258,636	4,090,949	23,113,042
2022	16,420,000	TBC	TBC	TBC

As the above figure shows, a diverse range of stakeholders are involved in the UGGp practice. Committees of residents, guide groups, local tourism associations, educators, experts, and administrative bodies, are committed to support local people, who must be the key driver for active promotion and practice of the UGGp; and the Academic Advisory Meeting provides advices to their activities. Our organisation ensures the transparency that we can seek expert views at any time from research institutions, academic advisors, education promotion committee members, and locals as necessary. The Resident Committee includes professional guides, and many women are actively engaged to the practices. The Secretariat Office consists of five staff, four of whom are directly employed by member municipalities.



Toya-Usu UGGp Council member list (As of 1 April 2023)

No.	Name	Employment status	Title	Expertise/skill	% time	Gender
1	Takekawa Masato	Full-time (Executive)	Director general	Supervision	30 %	M
2	Kagaya Nire	Full-time	Deputy Director General	Designing, marketing, tourism,	100 %	M
3	Nakaya Asami	Full-time	Clerk	Information, education	100 %	F
4	Hata Yoshiaki	Full-time (Contract)	Clerk	Website design, DRR education	100 %	M
5	Kaneta Koki	Full-time (Contract)	Geoscientist	Earth science, education, conservation	100 %	M
6	Mizuno Kazuhide	Municipal employee	Director	Coordination	20%	M
7	Kukuminato Shinobu	Municipal employee	Director	Coordination	20%	M
8	Iori Tadashi	Municipal employee	Director	Coordination	20%	M
9	Yokoyama Hikaru	Professor of university	Education promotion committee member	Pedagogy	30%	M
10	Tsunoda Takashi	Municipal employee	Education promotion committee member	Archaeology	20%	M
11	Nagaya Yukihiro	Municipal employee	Education promotion committee member	Archaeology	20%	M
12	Watanabe Tuzuri	Municipal employee	Education promotion committee member	Archaeology	20%	M
13	Ishizuka Yukio	Municipal employee	Education promotion committee member	Coordination	10%	M
14	Ogawa Yuji	Partner group representative	Guide, resident committee member	Nature/Canue guide	5%	M
15	Mimatsu Saburo	Partner group representative	Guide, resident committee member	Disaster risk reduction	5%	M
16	Abe Hidehiko	Partner group representative	Guide, resident committee member	Disaster risk reduction	5%	M
17	Iida Osamu	Partner group staff	Guide, resident committee member	Tourism	5%	M
18	Imano Kokichi	Partner group representative	Guide, resident committee member	Volcano guide	5%	M
19	Egawa Rie	Partner group representative	Guide, resident committee member	Volcano/nature guide	5%	F
20	Yamoto Shin'ichi	Partner group representative	Guide, resident committee member	Historic site guide	5%	M
21	Tanaka Hiroko	Partner group staff	Guide, resident committee member	Tourism	5%	F
22	Kawaminami Emiko	Partner group staff	Guide	Disaster risk reduction	5%	F
23	Sasaki Kazue	Partner group staff	Guide	Disaster risk reduction	5%	F
24	Miyamoto Yoshimi	Partner group staff	Guide	Disaster risk reduction	5%	F
25	Sasaki Mihoko	Partner group staff	Guide	Volcano guide	5%	F
26	Aramachi Miki	Partner group staff	Media	Radio programme presenter	5%	F
27	Sasaki Airi	Local newspaper publisher	Media	Reporter	5%	F
28	Kuroda Yoshino	High school teacher	Teacher	Pedagogy (geology)	5%	F
29	Sakai Taku	Municipal employee	Administration (tourism)	Coordination	10%	M
30	Fujiwara Hiroki	Municipal employee	Administration (tourism)	Coordination	10%	M
31	Mimatsu Yasushi	Municipal employee	Administration (tourism)	Coordination	20%	M
32	Tani Takashi	Municipal employee	Administration (tourism)	Coordination	20%	M
33	Adachi Yuji	Municipal employee	Administration (disaster preparedness)	Coordination	20%	M
34	Okada Hiromu	Director of non-profit organization for disaster preparedness	Academic advisor	Physical volcanology (geophysical studies)	10%	M
35	Tsuyuzaki Shiro	Professor of partner university	Academic advisor	Ecology	10%	M
36	Hirose Wataru	Researcher of partner institution	Academic advisor	Geology	20%	M

E.4 OVERLAPPING**Collaboration with UNESCO World Heritage sites**

Two historical sites of the UGGp, Kitakogane Shell Mounds (0.143km³) and Irie-Takasago Shell Mounds (0.065 km³) overlap with those designated under the UNESCO World Heritage Jomon Prehistoric Sites in Northern Japan, though the overlapping area is below 0.02% of the total. This World Heritage site



covers a total of 17 sites in 14 municipalities of three prefectures, Hokkaido and Tohoku region of Japan. The heritage and the UGGp share no boundary at all. The curators in charge of the Kitakogane Shell Mounds and the Irie-Takasago Shell Mound are the Council's Education Promotion Committee members, jointly organising Geopark lectures as lecturer. They also work to collaborate with the World Heritage initiatives, by using the UNESCO World Cultural Heritage's smartphone app, Pocket Curator, to add the UGGp contents in March 2022. From September to October 2022, the Toyako Onsen Tourism Association organised a monitoring tour, inviting the staff of the UGGp and the World Heritage to plan and organise. Backed by such collaboration, there are increasing number of tour guides who can guide visitors to both UNESCO sites.

E.5 EDUCATIONAL ACTIVITIES

School education

The Council produces the Outdoor Learning Textbook series for schoolchildren, and the Council staff and Volcano Meisters give lectures at school. For details, please see E1.5. Also, the Council annually organises hiking events of Mt O-usu, intended for families with children, for teaching about disaster risk reduction.

Stay-at-home event

As most events had to be cancelled in 2020 under the pandemic, the Council organised a so-called stay-at-home event, "Let's build a 3D topographic model of Lake Toya" event, which enabled participation at home. In the event, we gave parts materials of the underwater model to over 100 children, who made the parts and returned to the Council. After keeping the collected parts until the infection was under control, Date Midorigaoka High School students assembled the parts to build the model during their geography class. Their work was uploaded to YouTube so that the children can watch the process. (URL: https://youtu.be/D01_axEhLDY).

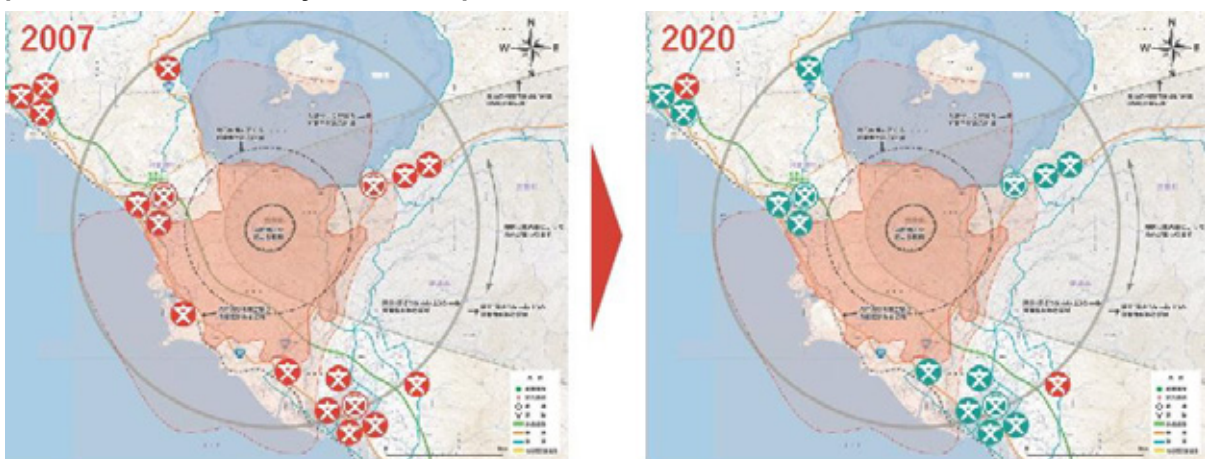
The completed model lake is exhibited at the Geoparks: Blessings of the Earth exhibition, together with a plaque displaying the participants' names.



Local disaster risk reduction education by Volcano Meisters

Volcano Meisters has two significant duties: promoting the charms of the UGGp, and promoting disaster risk reduction education for local communities. The council dispatches Volcano Meisters to schools within the region. There are increasing number of requests for lectures, especially from schools located close to Mt Usu (See the figure below, and F. Conclusion).

Expected areas affected by Mt Usu eruption, and the number of Volcano Meisters' school visits



⊗ School no dispatched Volcano Meisters ⊗ School dispatched Volcano Meisters

E.6 GEOTOURISM

Marketing for educational trips

The UGGp region is a fine destination for school/educational trips. Therefore, the Council actively promotes the region to domestic and international schools in cooperation with local authorities, tourist associations, the Noboribetsu-Toya Tourism Zone Council, and Hokkaido Tourism Organisation.

One of the popular programmes is the Volcano Meister's guided tours for disaster risk reduction by using the Geopark's Outdoor Learning Textbook (see E1.5). This is also designed to fulfil the United Nations' Sustainable Development Goals (SGDs) Target 11: Sustainable cities and communities.

Towards the world after pandemic

Smartphone de Stamp Rally

The pandemic changed the way of events, encouraging people to not meet in one place at one time. The 'Smartphone de Stamp Rally' event started in 2020 as the one where small groups can tour around the UGGp walking trails and sites by their own ways and time. The participants use LINE, a dominating social networking app in Japan with nearly 90% of all smartphone usership, so they do not have to install separate app, while they can contact anywhere and. It was an extremely effective method for carrying out events during the pandemic.



The 2020 event focused on the route shown on the Geopark walking map's volcano trails; the 2021 event had the theme of two UNESCO heritage sites, as a collaboration event with the World Heritage sites in the region. The 2022 event invited the participants to learn about the Geopark in more amusing ways like gameplay by solving riddles. The event registration increased over years: 770 in 2020, 1,140 in 2021, and 1,526 in 2022.

(URL: <https://www.toya-usu-geopark.org/thai/>).

Multilingual resources enhanced towards the recovery of inbound tourists

In the light of responding to overseas tourists, who seem to increase again after the pandemic, the Council produces English-language materials for hotel lobbies and rooms, designed to introduce the UGGp. We also produce the bilingual poster that illustrates how hot spring water flows, and put it at hotels' hot spring facilities and two public footbath locations in the Toyako hot spring resort area. Hot springs are the easiest example to show volcanic blessings.

Collaboration with local events

Many sports and food/harvesting events are held in the UGGp region. The Council collaborates with those events as follows.

Toya-Usu UNESCO Global Geopark

Toyako Marathon

The marathon event held every May with about 6,000 entries in 2019

The programme booklet for all participants features an article of the UGGp.



Hokkaido Two-Day March

The two-day walking event held every September with about 1,000 entries in 2019

The programme booklet for all participants features an article of the UGGp.

E.7 SUSTAINABLE DEVELOPMENT & PARTNERSHIPS

E.7.1 SUSTAINABLE DEVELOPMENT POLICY

Policies for Sustainable Development

In order to keep the memory of eruption disasters unforgotten, the UGGp preserves the entire damaged area, including facilities and roads, as 'disaster remains', and encourages the residents to work to mitigate disaster damages in a unique way, thereby building resilient communities to disasters (We call it the disaster risk reduction culture). Meanwhile, we embrace various attractive view spots: a magnificent caldera lake of Toya, streaming lava domes and cryptodomes, and rough-shaping craters showing the majestic landscape. At the same time, Hot springs of Toyako Onsen resort is the great destination for anyone who want to be relaxed. They are all benefits created by the volcano (we call them the volcano's blessings).

With the emphasis of 'disaster risk reduction culture' and 'volcano blessings', Toya-Usu UGGp will carry out the following sustainable development policies.



The Toya-Usu UNESCO Global Geopark will **achieve sustainable communities** by reducing disaster damage through a culture of DISASTER RISK REDUCTION and by increasing the local value of VOLCANO'S BLESSINGS.

The Toya-Usu UNESCO Global Geopark will **contribute to global society** regarding geological hazard mitigation by promoting our DISASTER RISK REDUCTION CULTURE. Well aware of the threats of the volcano and prepared for the coming disasters, the Toya-Usu UNESCO Global Geopark will contribute to the global popularity of geotourism through VOLCANO'S BLESSINGS and will achieve a sustainable global community through the Global Geoparks Network.

E.7.2 PARTNERSHIPS

Geopark partnership

The Council introduced the Geopark partnership agreement system in 2022. Through the agreement, partnered organisation and the Council ensure that Geopark activities are carried out in cooperation. Each agreement specifies the activities to be undertaken by the both parties. Partnered organisations can display a designated plate in their offices or shops. No businesses suspected of selling geological objects or violating regulations are permitted to partner. As of November 2022, there are 16 registered partners, including the following organisations.

NPO Geopark Friends (170 members; Chairperson: Mimatsu Saburo, Director of the Mimatsu Masao Memorial Museum)

This NPO group was set up in April 2009, before the area was approved in the GGN membership. The members work with the UGGp to learn and communicate the disaster risk reduction culture and local attractions. They are also enthusiastically involved in exchange activities with other Geopark areas through mutual visits.

NPO Toya-Usu Volcano Meister Network (58 members; President: Abe Hidehiko)

Founded in 2011 as a volunteer group, it obtained an NPO status in February 2022. They work to accelerate guided tours on volcano-related disaster mitigation for schoolchildren and tourists who visit the Geopark from in and outside the region, in addition to local people. All members are the certified Toya-Usu Volcano Meisters.

Certified Geopark pizza and hot sandwich restaurants

The database of 314 food ingredients in the UGGp region is available online. It is designed to provide local restaurants and food processors with the information on the ingredients, such as harvest months, to help develop food products that symbolise the UGGp. Geopark Pizza and Geopark Hot Sandwiches are 'tasty and symbolic light meal' with stories of the earth that appeal to the diners. Currently, three restaurants (Namihey Pizza in Toyoura, Restaurant Karzz in Toyako, and Parlor Fukuda in Toyako) are certified to be a Geopark partner and serve the pizza and sandwich under the criteria.

(Note: In order to promote these meals to more customers, the Council rents out Geopark pizza ovens and Geopark hot sandwich bakers (charcoal fire type and electric outlet type) to local restaurants and events.)



Geopark Partner 'Namihey Pizza'

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

Resident participation in management

As mentioned in E3 MANAGEMENT, local resident groups, guides, and tourist associations join the Council, taking part in project planning and decision-making processes.

Since 2021, members of the Guide Committee, Residents Committee and Education Promotion Committee has led the Geopark Lectures project (10 lectures a year), from brainstorming, deciding a curriculum, preparation to the day's operation. This is one of the approaches in bottom-up activities of the UGGp, which has resulted in wider lecture options than in the past. Moreover, lectures are planned from participants viewpoints, enhancing participants' satisfaction.

The 2022 Geopark lectures was as follows.

No.	Date	Category	Topic	Target	Participants
1	17 Jul	Disaster risk reduction	Communicating disaster risk reduction	General public	20
2	3 Aug	Guiding	MFA first aid method for guides	Guides	8
3	17 Sep	History, disaster risk reduction	1822 Mt Usu eruption and Ainu people	General public	21
4	25 Sep	Volcano, disaster risk reduction	Mt Usu family hiking	General public (families)	88
5	1 Oct	Industry	Tasty secrets of fruits	General public (families)	30
6	29 Oct	Ecology, industry	Life history of salmon	General public	11
7	13 Nov	History, culture	Experience of Toyoura culture	General public	—
8	Dec	Guiding	Disaster risk reduction education programme for child-raising families	Guides	—
9	Jan-Feb	Guiding	Study session on Ainu culture for guides	Guides	—
10	Feb-Mar	Guiding	Safety management for guides	Guides	—

Materials to encourage resident participation

The Council provides over 300 local stakeholders with materials every year, in order to familiarize local communities with the UGGp, and invite them to a variety of practices. Available materials include the Council-published books, information sheet on items available to rent (e.g., pizza oven, snowshoes, helmets, geothermal thermometer), brochures, walking maps, information on Geopark partners, and JGN-produced Geopark Magazine. We also distribute information on dispatching Volcano Meisters to schools.

Distributed to 372 locations in 2022

- (1) 45 Geopark-related facilities, public facilities, libraries
- (2) 10 tourist associations/chambers of commerce and industry
- (3) 42 accommodation facilities
- (4) 37 souvenir shops and restaurants
- (5) 12 transport operators
- (6) 15 guide/resident groups
- (7) 75 hospitals, dental clinics, dispensing pharmacies
- (8) 35 financial institutions
- (9) 76 beauty/barber shops
- (10) 25 schools



Distributed materials in 2022

E.7.4 Cooperation with Ainu people (Refer to E2.3 INTANGIBLE HERITAGE)

E.8 NETWORKING

Contribution to the network by maximizing advantages

All UGGp regions must be actively involved in tackling geological disasters that occur globally, and in training those responsible for disaster risk reduction. The UGGp has long developed the disaster risk reduction culture, which features the preservation and utilisation of disaster remains, and the certification of Volcano Meisters as disaster mitigation leaders. As a global frontrunner in this field, the UGGp must assume the responsibility to further promote the disaster risk reduction culture model to the whole Geopark network, by which we should be able to contribute the most to GGN, and thus can achieve the SDGs. We will continue to share our practices and new challenges with the UGGp network.



The UGGp accepts a few groups of trainees from the Japan International Cooperation Agency (JICA) every year. In the annual Volcanic Disaster Preparedness Capacity Building Course for Latin America, 10-20 trainees from volcanic regions in seven countries including Mexico, Chile, and Peru, visit here to learn the cases of regional disaster risk reduction activities. In 2022, the UGGp accepted 12 trainees for the six-day programme, conducting field trips and workshops. We discussed how the Geopark disaster risk reduction education is effective, UGGp philosophy and activities, application process, and the UGGp network in the Latin America and Caribbean region (GEOLAC) to encourage Geopark participation. As a result, one of the JICA programme participant, the Nevado del Ruiz region, became the first aspiring UGGp in Colombia. It proved true as an official from Nevado del Ruiz announced at the Cities on Volcanos 10 in Napoli, Italy in 2019.



Towards sister-Geopark affiliation with Leiqion UGGp

The Leiqion region, China, is similar with the UGGp in terms of volcanic geology. We promoted mutual visits, and exchanged the Letter of Intention for Friendship and Cooperation online in May 2021. Our joint projects include photo exhibitions and brochures to introduce the both regions.



Visit of Leiqion region for discussion (Apr 2019).

Information sharing and joint projects with GGN/APGN

- * Joined the preparation process for APGN participation in ITB 2020 (Messe, Berlin) under Dr Yeung Ka-ming coordination (Hong Kong UGGp). It was unfortunately cancelled due to the pandemic.
- * Presented our picture book "Origins of River Names of Toya-Usu UNESCO Global Geopark" in several occasions: about the project plan at the second GGN Digital Forum; and about the completion of the project at the APGN Zoom Networking event Let's Do It; about the events on the complete picture book at the APGN International Conference 2022 in Satun UGGp.
- * Jagoda Woloszyn from Oki Geopark presented the Smartphone de Stamp Rally event at APGN-CC Conference in 2021; while Furusawa Kana from JGN office presented the collaboration project with post offices at the APGC-CC Conference in 2022.
- * Supported high school students with the participation in the UNESCO Global Geopark High School International Exchange Meeting organised by Muroto UGGp. We helped Date Midorigaoka High School students create presentation materials, and gave lectures on disaster risk reduction education to Hakurei High School students from Itoigawa UGGp.
- * Published the booklet, "Water's Journey: Considering the Water Environment from the Perspective of UNESCO Global Geopark's Practices", which covers the cases from Indonesia (Batur UGGp, Rinjani-Lombok UGGp), China (Leiqion UGGp) and the UK (North Pennines UGGp).
- * In June 2022, we submitted an article for the GGN joint publication, "Geoparks & Oceans".

Dispatch of UGGp evaluator

The UGGp has dispatched a secretariat office staff as evaluator at the request of UNESCO. Our contribution in this category is as follows.

Kagaya Nire, Evaluator for Muskau Arch UGGp (Germany and Poland) in 2019

*No dispatches after 2019 due to the pandemic.



Networking with Japanese UGGps and JGN regions

The UGGp's Kagaya Nire serves as chairperson of the Working Group on Communication to Reduce Geological Material Collection and Sales in the Japan Geoparks Network (JGN), a collective project with Mount Apoi UGGp, Itoigawa UGGp, San'in Kaigan UGGp and eight JGN regions. Activities include:

- * Collecting and disclosing information on geological material trades in terms of environmental impact and labour issues
- * Assisting the businesses working to downsize the trade of geological materials; gathering successful alternative businesses
- * Developing communication tools which are easily accessible when talking to local businesses

The working group plans to set up a team to survey best practices of UGGps in the world in reducing geological material trades. Going forward, the survey will be conducted to find the efforts in the conservation of geological heritage.

Networks within the region (see E.7.2 Partnerships)

E.9 SELLING OF GEOLOGICAL MATERIAL

Neither the Toya-Usu UGGp Council and its partners are involved in any geological material trades.

F. CONCLUSION

The UGGp has been working in accordance with the Master Plan, which prioritizes the following four projects (see Master Plan, p. 74) from 2019 to 2022. This section deals with their progress and analysis.

Disaster Risk Reduction Education Empowerment (DRR-E) Project

This project aims to familiarise all schools located in the UGGp area with the education on Geoparks and volcanic disaster risk reduction. The UGGp will enhance and enrich activities available to local schools by creating outdoor learning textbooks and Volcano Meister lectures.

On the one hand, the Council started in 2020 to subsidize the lecturer fees to local schools when Volcano Meisters are dispatched there. As a result of familiarizing of the system to all schools in the region, more Volcano Meisters were dispatched to schools than ever. On the other hand, the number of outdoor learning textbooks distributed varies from year to year, so it is necessary to consider how to increase their use. We began updating of the contents in 2021.

	2018	2019	2020	2021	2022
No. of Volcano Meisters dispatched to schools	17	17	53	52	57
No. of outdoor learning textbooks distributed	1,067	620	997	487	476



Disaster Risk Reduction Culture Global (DRR-G) Project

The disaster risk reduction culture and Volcano Meister system, two best practices of the UGGp, will be introduced and promoted globally, in cooperation with the DRR working groups in GGN and APGN.

The Council has provided public relations activities in different languages online on disaster risk reduction education and Volcano Meisters, as well as accelerated promotional activities for educational tours on disaster risk reduction education, by using bilingual brochures (in Japanese and English).

Besides, we posted an article on Volcano Meisters to the GGN Newsletter, and on the region's disaster risk reduction practices to the UNDDR (United Nations Disaster Reduction Organisation) website and UNESCO's promotional publication (See D for details).

Total Destination Development (TDD) Project

This project is designed to develop tour routes and activities that cover the whole of the Toya-Usu UGGp by reorganising existing information on nature, history, and tangible and intangible culture, as well as geoscientific information on the area before the birth of Lake Toya. Geosites/related sites, transport to those sites (public transport, rental cars, bicycles) and activities will be reintegrated, and these will be promoted online and in multilingual brochures.

The UGGp implemented the following practices for the project.

2019-2020: Completed the site list revision.

2019-2020: Produced three walking maps (Volcano Trails, History and Culture Trails, Forest and City Trails), introducing popular trekking/walking routes, in Japanese and English. The maps contain information on activities and road maps for drivers and cyclists. They are available at base facilities.

(URL: <https://www.toya-usu-geopark.org/english/trails/>).



2020-2021: Updated the existing 21 general information panels. Each panel now shows a QR code which links to official websites, Google maps, and the information on maps, facilities and walking routes on the panel. This is designed to encourage visitors to tour around the wider area in the UGGp.

2020: Launched the Smartphone de Stamp Rally (see E6 for details). It capitalised the data we compiled to create an effective round-trip tourism activity under the pandemic. The event will take place regularly going forward.

2021: Added six general information panels at the locations that we found it necessary to have more information on site, from an analysis of the traffic of visitors.

UGGp-brand Inbound Promotion (BIP) Project

The Geopark is an international tourist destination where 480,000 foreigners stay overnight annually. Leveraging the status of the area, the project is intended to promote the UNESCO Global Geopark brand and value to overseas tourists. Geopark information kiosks have been placed at major tourist attractions, railway stations and bus terminals, and at all hotels in the Lake Toya Onsen area, and Geopark brochures have been prepared and distributed in guest rooms for overnight guests. Furthermore, at the Geopark exhibition space in the Toyako Tourist Information Centre, wall displays and interactive digital signage equipment are used to introduce information on the 140 UNESCO Global Geoparks, as well as a photo exhibition to introduce the attractions of UNESCO Global Geoparks in the world. Existing promotional materials, tools and other media will be used more effectively in branding campaigns of UGGps as well as suggesting a geotourism in the world.

The UGGp implemented the following practices. It must be noted, however, that the number of overseas tourists remains extremely low due to the pandemic.

- * Checked and supplemented the copies of materials at the existing nine main museums, 11 information centres, four gateways (railway stations, bus terminal) and 17 information kiosks (hotels, public facilities) when the UGGp staff visited and/or were informed by those facilities. The materials include the latest multilingual ones.
- * After the 2019 revalidation, the UGGp added: Lake Forest Museum, Lake Toya's Nakajima, to the main museum list, and nine post offices to information kiosks to the information kiosk list.

In addition to these priority projects, the UGGp achieved positive outcomes through the 2019-2022 four-year initiative as follows. Please see the details in each chapter of this report.

- ◎ **Increased the infrastructure and programmes that showcase the indigenous culture**
- ◎ **Further improved the visibility in collaboration with post offices and road administrators**
- ◎ **Improved signage design to enhance the brand image and user-convenience**
- ◎ **Progressed effective cooperation with the newly recognised UNESCO cultural heritage site**
- ◎ **Strengthened the bottom-up activities, such as lectures organised by resident and guide committee members**
- ◎ **Strengthened networking with local organisations and businesses through the partnership system**
- ◎ **Used online tools effectively, including ZOOM, video and social networking services**

Based on these progresses and challenges found in the analysis, we are going to draft the priority projects 2023-2026 by spring 2023, to further present Geopark practices more effectively in the "world after" the pandemic.