



United Nations
Educational, Scientific and
Cultural Organization



UNESCO
Global
Geoparks

Progress Report 2015-2018

Name of UGGp: **Toya-Usu**

Country: **Japan**

Person responsible for the report: **Masato Takekawa**

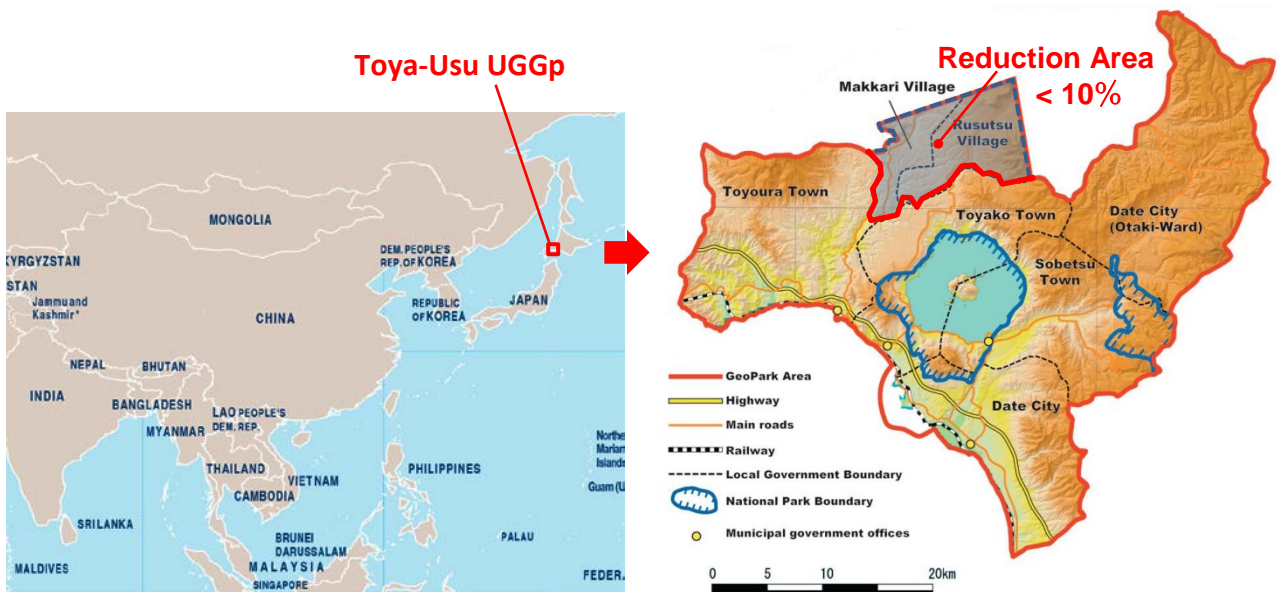
A. GENERAL INFORMATION

Surface area in km ²	1,064 km ²
Population	49,765 (as of 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)	2009
Previous revalidation date(s) and name(s) of previous evaluator(s)	24-27 July 2017 Kirstin Lemon, Zhang Jianping
Contact person (name, position, e-mail)	Nire Kagaya, Chief Secretary, kagaya.nire@town.toyako.lg.jp
Website (please provide URL)	www.toya-usu-geopark.org/english/
Social media (please provide list of all channels used)	Facebook: (EN) www.facebook.com/ToyaUsuGeopark/ (JP) www.facebook.com/ToyaUsu/

B. LIST OF DOCUMENTS SUBMITTED BY THE UGGp

- 01 Progress Report 2015-2018
- 02 Document A
- 03 Document B
- 04 Appendix
- 05 GGN-Geopark Annual Report (2016, 2017)

C. MAP OF THE AREA



The last revalidation report pointed out that the Toya-Usu UNESCO Global Geopark (hereinafter referred to as 'Toya-Usu UGGp' or 'the Geopark') must "include the municipalities currently excluded in the north of the area within Toya-Usu UNESCO Global Geopark management". It meant that the Geopark territory included the areas under the administrative jurisdiction of Rusutsu Village and Makkari Village, both of which are not the Toya-Usu UGGp Council ('the Council') member municipalities. The Council's academic advisory meeting examined the validity of the recommendation and re-evaluated the area, confirming that one geosite (B01: Toya Pyroclastic Flow Deposit) stretches to Rusutsu and Makkari. It agreed that the Council would not have to include the two municipalities in the light that (1) the geologically-important site of B01, adjoining the source of pyroclastic flow of Toya Caldera, is located in Toyoko Town, and (2) there are no information centres or museums, no communal/business collaborations in Rusutsu or Makkari. The meeting also assured that the reduction in area of the geosite would not have any impact on the Geopark's present conservational, educational, tourism or community practices. Consequently, the Council concluded that the two municipality-covered area would be excluded from the Geopark territory to reduce the whole area. The two municipalities accepted the decision.

The excluded area is 116 km², within 10% of the original territory (1,180 km²), which meets the UGG criteria.

D. IMPROVEMENTS MADE ON PREVIOUS RECOMMENDATIONS

The Toya-Usu UGGp received the **Yellow Card** in 2017.

○ There is currently no geoscientist employed directly by the UNESCO Global Geopark. This should be addressed as soon as possible by either employing a geologist or by producing partnership agreements that specifically cover the delivery of geological services for the Geopark.

A full-time geoscientist position vacancy was posted for direct employment from September to November 2018, and has been filled. The selected candidate will be assigned for the position as of 1 April 2019. Therefore, we consider this recommendation fulfilled.

○ The new management plan should be completed as soon as possible as the current one is nearly out of date. It is not possible for a UNESCO Global Geopark to function without clear direction so this should be a top priority.

The Council has been implementing a full revision of the Toya-Usu UGGp Master Plan so that it will comply with the UGGp criteria. The revised Master Plan is expected to be complete by March 2019; thereby it will define the comprehensive activity guidelines of the Geopark. Therefore, we consider this recommendation fulfilled.

○ Ensure consistency with the use of the UNESCO Global Geopark name. Use either Toya-Usu UNESCO Global Geopark or Toya Caldera and Usu Volcano UNESCO Global Geopark but not both.

'Toya-Usu' is consistently used to ensure the visibility to the visitors. Signage made in March 2018 onwards uses 'Toya-Usu', while the name will be renewed accordingly for those made before March 2018. Therefore, we consider this recommendation to have been fulfilled.

○ Include the municipality currently excluded in the north of the area within Toya-Usu UNESCO Global Geopark management.

Following discussions with the two municipalities and suggestions by the academic advisory meeting, the Council concluded that the areas would be excluded from the Geopark territory to reduce the area to fulfil the recommendation, in that the area exclusion would not have any impact on the Geopark management.

○ Increase visibility on main entrance roads to the UNESCO Global Geopark.

The second phase of Toya-Usu UNESCO Geopark Signage Development Plan (2018-2022) has been formulated. This plan is valid for five years, prioritizing the actions in 2018 and 2019.

Under the plan, the following signs were installed.



Installed welcome signs at the gateway to the Geopark

- (1) February 2018: two welcome signs with the UNESCO logo mark were installed at the gateway to Toyako Onsen area, where major base facilities are concentrated.
- (2) August 2018: one welcome sign was installed on National Highway 230 near the Michi-no-eki (roadside rest station) Toya, which is a gateway to the Geopark from Sapporo.
- (3) August 2018: one welcome sign was installed on National Highway 453 in Bankei, Sobetsu Town, which is a gateway to the Geopark from New Chitose Airport.
- (4) October 2018: one welcome sign was installed on National Highway 453 in Otaki, Date City, which is a gateway from New Chitose Airport.

Therefore, we consider this recommendation to have been addressed.

○ Improve visibility within the UNESCO Global Geopark through better signage in between geosites and the provision of visible traffic signs.

By March 2018, Geopark-related facilities and 180 guide signs located along local roads were added with the UGGp official logo, thereby increasing the visibility of a UNESCO Global Geopark even at distant places from geosites. In August 2018, 20 electric bulletin boards over national highways displayed the Geopark name and a welcome message, intending to appeal the visitors in the busy sightseeing period (This practice will be conducted in the summer busy seasons). In December 2018, a 2-meter-long Geopark sticker appeared on the rear window of local bus vehicles. Looking ahead, selected guide signs on prefectural roads (93 in total) will accordingly be added with UGGp official logo. Through these practices, we consider this recommendation to have been addressed.



Traffic sign with UGGp logo

Electric board over the national highway

Bus sticker

○ Proper consideration should be given to conservation of key geosites and the impact that excessive vegetation growth will have in the future.

Policies on disaster remain conservation will be specified in the new Master Plan. Prior to this, posters have been placed at major disaster remains so that visitors, residents and Geopark guides will learn about the policies. Therefore, we consider this recommendation to have been fulfilled.

○ Increase visibility at visitor centres and museums and include obvious information on the UNESCO Global Geopark and make it clear that the centre or museum is part of the UNESCO Global Geopark.

○ Ensure that all visitor centres, museums and other facilities contain information on the UNESCO Global Geopark.

The second phase of Toya-Usu UNESCO Geopark Signage Development Plan (2018-2022) has been formulated. This plan is effective for five years, prioritizing the actions in 2018 and 2019. In the plan, all facilities are required to include a UGGp general information panel. All facilities have already completed the requirement.

Under the plan, signs were placed as follows.

(1) Main museums

- UGGp official logo mark and Toya-Usu UGG name sign on the outer wall of the

Toyako Visitor Center

- UGGp official logo mark on the outer wall of

Mimatsu Masao Memorial Museum

- UGGp official logo mark on the outer wall of

USUZAN Ropeway mount base station

and **mountaintop museum**

- UGGp official logo mark on the outer wall of **Toya Takarada Nature Experience House**

The main museum sign with UGGp official logo mark was also placed on the entrance door of all main museums.

(2) Information centres

The information centre sign with UGGp official logo mark was placed on the entrance doors; flag banners were placed outside of the facilities, and product PR banners were displayed inside the facilities.

(3) Geopark-related facilities

The Geopark-related facility sign with UGGp official logo mark was placed on the entrance doors. Flag banners were also placed outside of the facilities.

Therefore, we consider this recommendation to have been fulfilled.



UGGp logo on the outer wall of main museums

○ Include information on plate tectonics and specifically how they are responsible for the volcanic activity in the region.

Partial renewal of existing exhibits and the new exhibits on the relationship between volcanic activities in Hokkaido and plate tectonics are planned at Toyako Visitor Center by March 2019, in collaboration with Japanese Ministry of Environment ('MOE') Hokkaido Regional Environment Office, which is the administrator of the facilities. Therefore, we consider this recommendation to have been addressed.

○ There is little information about the link between geology and natural, cultural or intangible heritage. This needs to be improved so that visitors can understand their relationship.

Toyako Tourist Information Center accommodates the regular exhibition space titled Geoparks: Blessings on Earth, showing the relationship between the earth, nature and culture of the Geopark area. Exhibits that highlight the relationship between the earth and intangible assets will be added to the information facility "Michino-Eki Aputa" by March 2019. Therefore, we consider this recommendation fulfilled.

○ In order to ensure the future cooperation of both the proposed World Heritage site and the National Park it is recommended that formal partnership agreements are drawn up with the relevant authorities.

Some sites in the Geopark territory is under the tentative list for Japanese candidate of UNESCO World Cultural Heritage inscription (See E2.2. CULTURAL HERITAGE). The curators who are working for World Heritage registration serve as committee members or academic advisers of the Geopark, by making an agreement with their specific responsibilities.

Meanwhile, the Council and MOE Hokkaido Regional Environment Office have been discussing a partnership agreement which specifies action plans of both sides. It is expected to be concluded by March 2019. Therefore, we consider this recommendation fulfilled.

○ Given the strong links between the Ainu culture and the landscape, especially through the indigenous language it is recommended that the UNESCO Global Geopark works very closely with the Ainu people to maintain and nurture the traditions.

The Geopark has sought collaboration with Ainu people in the territory. Since 2017, the Council has attended the Ainu ceremony called *Kamuinomi Icharupa* (a festival of Ainu people's prayer to God and father's ancestry) in Toyoura and Toyako. In February 2018, the Council organised a lecture on Ainu-origin place names and Ainu tradition in the Geopark by Mr. Yoshiyuki Uji, Chairperson of a local Ainu association (<http://www.toya-usu-geopark.org/archives/14232>). His lecture provided an excellent opportunity for Geopark stakeholders to learn about traditional Ainu culture.

Three-year publicity project is underway from 2018 to 2020, through which a book on Ainu-origin place names within the Geopark will be produced. Working closely with Ainu people and related stakeholders, the Council has been engaged with introducing Ainu culture, which has survived to date. Therefore, we consider this recommendation to have been fulfilled.

○ Much stronger efforts should be made to communicate and work together with UNESCO Global Geoparks from outside of Japan.

○ Strengthen the involvement in the activities of the Global Geoparks Network and the Asia Pacific Geoparks Network promoting the international value of the territory through the partnership with Global Geoparks under the umbrella of the UNESCO Global Geoparks.

The Geopark has sought a sister-geopark partnership with Leiqiong UGGp, China. During the 2018 UNESCO Global Geopark International Conference in September, the both sides met to discuss the timeline for signing the partnership agreement and making mutual visits. They are continuing talks to organise programmes such as children exchange.



Workshop of Capacity Development Project for Asia-Pacific Region in Toya-Usu UGGp

Mr. Nire Kagaya and Mr. Yoshiaki Hata from the organisational secretariat, and Ms. Emiko Kawaminami from the Volcano Meister Network, are the members of APGN Capacity Development Project for Asia-Pacific

Region. This project is a collaboration between Japan-based UGGps and Aspiring UNESCO Global Geoparks in Japan, which aims to assist new UGGp launch in Asia-Pacific region and to create capable Japanese staff who promote UGGp international exchange/commitment. This also intends to address issues that participating regions have and to invigorate the networking in Asia-Pacific regions.

In 2016, the project invited the key persons from UGGp-aspiring regions in Asia (Thailand, Malaysia and Vietnam) to four conferences: international forum in Niigata (July), English Riviera International Conference (September), National Conference in the Izu Peninsula UGGp (October) and a meeting in Tokyo (December). In 2017, the project operated a booth at the 5th APGN Conference (September), invited the key persons from UGGp-aspiring regions in Cambodia, Indonesia, Kazakhstan, Myanmar, Nepal, the Philippines and Thailand to Toya-Usu UGGp and National Conference in the Oga-Ogata region (October), and organised a joint workshop in Thailand (November). These projects have benefitted Cao Bang in Vietnam, Satun

in Thailand and Ciletuh-Palabuhanratu in Indonesia, which were newly included in the UGGp Network in 2018.

The Geopark also participates in international projects with other UGGps: the joint publication with Japanese and Chinese UGGps (from 2017 onwards), a joint publication with 7 Japanese UGGps (2017) and the Go Geopark project with Mudeungsan UGGp, South Korea (2018). Over the four years, the Geopark has strengthened the networking efforts with overseas UGGps, thus contributing to the vibrant UGGp network. From this standpoint, we consider this recommendation to have been addressed.

E. VERIFICATION OF UGGp CRITERIA

E.1 TERRITORY

E.1.1 GEOLOGICAL HERITAGE AND CONSERVATION

Geological Heritage Sites and Their Global Value of International Significance

Toya Caldera and the pyroclastic flow plateau were made 110,000 years ago when a catastrophic pyroclastic eruption occurred. Water was later pooled in the caldera to form today's Lake Toya, the third largest caldera lake in Japan. In the middle of the lake is Nakashima, which emerged from an eruption 50,000 years ago. Mount Usu erupted nine times over 350 years, out of which four eruptions happened in the 20th century. The 1944-1945 eruptions uplifted the ground of wheat field and houses to form today's Mount Showa-Shinzan; while more than 60 craters were created at the bases of Mount Nishiyama and Mount Konpira during the 2000 eruption.

Lake Toya, Mount Usu and the sites that highlight a course of present volcanic activities at/around the lake and mountain are all easily accessible within the short distance. This is the global value of international significance of Toya-Usu UNESCO Global Geopark.



Toya caldera and Mt. Showa-Shinzan

Conservation of Precious Geosites

The Geopark discussed with MOE how to conserve precious geosites, many of which are encompassed within the Shikotsu-Toya National Park territory. Discussion members included Geopark academic advisers, community representatives and local government officials. As a result, MOE issued a report in March 2018. The report acknowledges the importance and educational value of topographic/geologic sites and disaster remains. The special conservation zone around former National Highway 230 is categorised for vegetation conservation and topographic/geologic conservation purposes. The latter zone, where past volcanic activities are confirmed in the form of crater, volcanic active fault, upheavals, ballistic ejecta and impact craters, is permitted to cut grown plants as necessary to keep disaster remains and other geoscientifically important remains from degradation. This new zoning will be effectively used for site conservation, education and geotourism.

There is no change in the number of geosites over the four years. Area reduction will not reduce a number of geosites or exclude a geologically-important part of a geosite; thus it should not have a negative impact on conservation of the geology (See "C. MAP OF THE AREA").

Disaster remains in the Geopark area are excellent educational materials that teach us a system of destruction and regeneration of life through geo-activities. These remains can teach us two things: first, the earth activities, its destructive power and disasters that follow; and the second, the resilience of nature. Each remain and site needs suitable conservation to meet its appropriate use.

The revision of the Master Plan looks at basic guidelines of conservation and use of those remains and sites.

Geosite Conservation Practices

【the Council, local governments】

- Fault observation point on Prefectural Road 2: An alignment improvement work plan was modified to preserve the faults appearing on the road at Toyako Hot Spring resort.
- Former Toyako Kindergarten: Weed was removed so that visitors can observe the ballistic damage and crustal movement of 2000 eruption. Local people are volunteered to work on weed removal twice a year from 2013.
- Former Town Road Izumi-koen Line: Weed was removed so that visitors can observe the deformation in 2000 eruption (from 2015 onwards).
- Former National Highway 230: Weed was removed so that visitors can observe the deformation in 2000 eruption (from 2018 onwards).

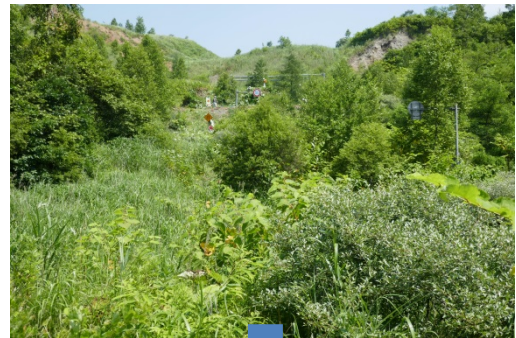
【Geopark partners (private sector)】

NPO Toya-Usu Geopark Friends

- Regularly works on conservation of Mount Donkoro outcrop on the northeast of Mount Usu, which contains its scoria and tephra deposits from Mount Usu,. Also cuts weeds and prunes tree branches once a year at Mount Yosomi, which was created from 1910 eruption, in order to protect the landscape and make sure that visitors can walk around the crater footpath.

Toya-Usu Volcano Meisters Network

- Members individually make sure that the geosites are clean and safe through daily actions such as waste removal. They also patrol the geosites to find an illegal dumpings, damages that require repairs for safety reasons and any other abnormalities, and report to the Council for action.



Removing visitation of Former National Highway 230 with volunteers (25 July 2018)

E.1.2 BOUNDARIES

The boundary of Toya-Usu UGGp is based on the combined administrative boundary of four member municipalities: Date, Toyoura, Sobetsu and Toyako. This boundary is shown at the general information panel and media publication. After the boundary was redefined to reduce the area in 2018, the official website, new and additionally-printed publications use a map with the new boundary.

E.1.3 VISIBILITY

Second Phase of Toya-Usu UNESCO Global Geopark Signage Development Plan

One of the effective branding strategies is to increase the visibility of a UGGp region, keeping visitors and residents aware that they stay in a UNESCO Global Geopark. Toya-Usu UGGp uses a variety of signage. Intending to make a consistent signage system that employs useful information and guides visitors to individual sites effectively, the Council formulated the second phase of Geopark Signage Development Plan in 2018. According to the plan, the visibility works will be intensively conducted in 2018 and 2019.

The plan sets the design rule, specifications and placement guidelines for (1) welcome signs, (2) facility/site guide signs, (3) facility signs, (4) general information panels, (5) site interpretation panels, and (6) banners.

UNESCO official logo mark has been added to signs and publications to increase the visibility of the Geopark as a certified destination of UNESCO Global Geopark. The Council has published number of publication (See the appendix). The two core leaflets were translated into four languages, and most other publications are translated into English. The official website is available in five languages (English, traditional Chinese , simplified Chinese, Korean and Japanese).

Visibility Improvement

In response to the recommendations, the Geopark installed two welcome signs that contain the UNESCO official logo in February 2018. Additionally, one welcome sign was installed in August 2018 on National Highway 230 near the Michi-no-eki (roadside rest station) Toya, which is the gateway to the Geopark from Sapporo; and one was installed on National Highway 453 in Bankei, Sobetsu Town, which is the gateway to the Geopark from New Chitose Airport. In October 2018, one welcome sign was installed on National Highway 453 in Otaki, Date City, which is the gateway to the Geopark from New Chitose Airport. UNESCO official logo was added to all of 51 official interpretation panels and 27 general information panels by July 2017. 180 site/facility guide signs located along local roads was replaced from Toya-Usu UGGp logo into UNESCO official logo mark. This work will apply to 93 guide signs left unreplaced.

E.1.4 FACILITIES AND INFRASTRUCTURE

The second phase of Signage Development Plan defines three types of base facilities: (1) main museum, which exhibits UGGp theme, (2) information centre (e.g., michi-no-eki) and (3) related facilities. The plan specifies that the main museums must show a certificate of UNESCO Global Geopark and a UGGp interpretation panel. A metal plate with UGGp official logo mark was placed at Toyako Visitor Center, Mimatsu Masao Memorial Museum, Usuzan Ropeway museums (on the base and at the summit) and Toya Takarada Nature Experience House. Under the plan, all facilities must show a UGGp facility-sticker at the entrance, and provide a general information panel and swing banner, as well as prepare brochures. The 'Geoparks: Blessings of the Earth' exhibition space in Toyako Tourist Information Center incrementally updated materials from 2014 to 2018. This space now consists of exhibitions of UGGp profiles, networking activities, geopark programmes and their effects, along with a workshop room for Geopark events and training programmes to promote UGGp effectively.

E.1.5 INFORMATION, EDUCATION AND RESEARCH

Promotional Media

The Council has published the following brochures. The Council regularly updates, prints and distributes the materials as necessary .

- (1) Toya-Usu UNESCO Global Geopark (five languages)
- (2) Geopark model course leaflet (five languages)
- (3) Toya-Usu Volcano Meisters (Japanese with English translation)
- (4) Geopark-*no koko ga sugoi!* (Japanese)
- (5) Geopark Partnership System (Japanese)
- (6) Geopark pizza/hot sandwich

A series of Toya-Usu UGGp Guidebooks (JP: 00-07, EN: E0,E2 andE3) highlight the sites to see at Toya-Usu UGGp. These books are sold at base facilities at 200 yen each. They are purchasable online, too. (URL: www.toya-usu-geopark.org/english/guidebook). A series of outdoor learning textbooks (volcano, Jomon & Ainu cultures, birth and transition of forests) are useful tools for

school teachers. Corresponding to the study guidelines by Japanese Ministry of Education, Culture, Sports, Science and technology, the hard copies are distributed to local schools, and the data is available online for free. The textbooks have got 5,000 downloads. Considering that the downloaded data would be photocopied to further distribution, the number of actual textbook users may be a few times higher than that of downloads (URL: www.toya-usu-geopark.org/english/text).

Other Publication, Website Visibility on Smartphone/Tablet

Geopark municipalities issue materials for scientists and residents in cooperation with the Council. “Jikan-ryoko (Time Travel) - The Album for Three Generations” (2015, English version in 2017) and “*Otakara* (Treasures)” (2016, English version in 2017) convey the value of life at the Geopark to local communities. “A Collection of Photo Documents: Living Together with the Active Volcano’ (2016) and “Usu Volcano Eruption Records from Meiji to Showa Period: the Sobetsu Historical Museum Friends edition” (2016) tell what volcanic eruptions were like. The official website launched the smartphone/tablet friendly version in October 2017. Contents are categorised by user type so that different users (tourists, educators, residents) can easily find the information they look for. (URL: www.toya-usu-geopark.org/english/)

Academic Findings

From 2015 to 2018, a total of 147 new findings on the Geopark in the fields of geology/volcanology, pedology, disaster risk reduction, archaeology, biology, pedagogy and tourism were presented in the form of papers and oral presentations (See Appendix). In geology, the Geological Survey of Hokkaido Research Organization conducted studies on hot spring sources around Mount Usu from 2012 to 2015. In archaeology, the Hokkaido Museum and Date City Institute of Funkawan Culture have studied since 2015 the influence of the coldest period of the little ice age, massive eruption(s) and tsunami on Ainu people, led by Yuji Soeda, and have excavated the *Kamui-tapukopu* Remains in Date. They discovered the remains of a crop field before the time of the 1663 eruption, found between the layers of a gigantic tsunami caused by the 1640 eruption of Mount Komagatake, a volcano located on the other side of Funka Bay, and a layer of volcanic ash from the 1663 eruption. From the remains, the team has been studying the daily life of Ainu people of the time. Some of these findings were presented at Geopark lecture sessions. An ongoing study looks at the method for reproducing human activities by using volcanic fluorine concentrations (2016-2018), led by Tomoya Aono.

The Geopark has supported and/or collaborated in academic studies. One of such joint researches is the re-review of the sector collapse period of Mount Usu (2018), for which the Council covered the expense for renting heavy machines to clear the earth and sands around the outcrop and joined the research.

E.2 OTHER HERITAGE

E.2.1 NATURAL HERITAGE

The territory of Toya-Usu UGGp overlaps approximately 20% of Shikotsu-Toya National Park, which consists of five areas: Lake Shikotsu, Jozankei, Lake Toya, Mount Yotei and Noboribetsu. Lake Toya area and a part of Noboribetsu area overlap Toya-Usu UGGp area. MOE is the administrator of Japanese national parks, and a Toya-Usu UGGp Council member. In that the Geopark’s volcano-related sites, many of which are located within the national park, necessitate appropriate conservation/use, the Geopark Council and MOE Hokkaido Regional Environment Office have been discussing to conclude a partnership agreement by March 2019, specifying action plans of both sides for closer cooperation.

Many parts within the Geopark territory are authorised their values by the central and prefectural governments. Mount Showa-Shinzan is a special natural monument of the Agency for Cultural

Affairs, Japan; Kamuichashi is a nationally-designated scenic cultural property, *Pirikanoka*, of Agency for Cultural Affairs; and a number of areas are Hokkaido Government-designated environmental green space protected zone, natural landscape conserved area or wildlife sanctuary. The wildlife sanctuaries are confirmed to be the habitat for rare wild birds such as white-tailed eagle, Steller's sea eagle and black woodpecker.

It was proved that Mount Usu had erupted six times from different craters since 1822, and then each crater site exhibits a varying pace of vegetation succession. It is possible to observe herbaceous vegetation at the 2000 eruption craters, and tall perennial grassland and a young Japanese poplar forest at the base of 1977-1978 eruption sites. People can also find middle-aged forests of Japanese poplar at the bottom of Mt. Showa-Shinzan formed by the 1944-1945 eruptions; matured forests of Japanese poplar at Yosomi craters from the 1910 eruption; and the forests where climax species such as Japanese oak trees become prevalent following the 1822 and 1853 eruptions. These different forest distributions show the process of, and the time required for, succession. There are few locations in the world like the Toya-Usu UGGp where such different phases of forest ecosystems are found within a limited zone. The Geopark provides tours for learning opportunities of the birth and growth of forests. The Council published an outdoor learning textbook "Let's Learn the Birth and Succession of Forests at Mount Usu!" in 2015. This is intended to help high school students committed to inquiry-based learning, a requirement of the Japanese MEXT course of study guidelines. (URL: www.toya-usu-geopark.org/english/text)



Outdoor learning textbook "Let's Learn the Birth and Succession of Forests at Mount Usu!"

E.2.2 CULTURAL HERITAGE

Alongside the shore is a rich source of the remains of Jomon and Ainu Culture periods (circa, 14,000-300 BCE). Two of them, Irie Takasago Shell Midden in Toyako Town and Kitakogane Shell Midden in Date City are nationally-designated historic sites and are studied by many experts as the community remains to show that human being inhabited for over 2,000 years. In the Japanese archipelago, Jomon culture lasted 10,000 years. This is characterised by people's sedentary lifestyle that relied on hunting, fishing and gathering instead of farming and livestock. Shell midden is one of the symbols of Jomon culture, and Funka Bay area is one of the concentrated zones of such shell midden.

A wide variety of animal bones were excavated from those shell middens, verifying natural environments and diets of the Jomon times. Surprisingly, human bones were also discovered in the midden, which revealed that the shell midden served as a place for burial rituals and for wishing for reincarnation. This suggests a high level of their spirituality. Some hints that the spirituality of Jomon people may have some relations to the sending-off rituals of Ainu people. Remains of community, shell midden and ritual places from the Jomon period to Ainu Culture period remind us that nature and its blessings in today's Geopark area have supported people's live for a long time.

The Council issued an outdoor learning textbook on the area's Jomon history and culture, designed to support elementary school pupils with their social studies (URL: www.toya-usu-geopark.org/english/text).

Currently, the UGGp has no overlap with other UNESCO programme authentication. Two sites, Kitagogane Shell Midden (0.143 km²) and Irie Takasago Shell Midden (0.065 km²) comprise the Jomon Archaeological Sites in Hokkaido and Northern Tohoku, which became listed on the UNESCO World Cultural Heritage tentative list in July 2018. The combined area of the two is smaller than 0.02% of the total Geopark area. These archaeological sites designed for the World Heritage registration covers 17 historic remains located in 14 municipalities of Hokkaido and three prefectures of northern Tohoku. The boundary of the entire site is explicitly different from the boundary of the Geopark. All of the curators who are working on the World Heritage registration also serve for the Geopark committee or the Academic Adviser Meeting, by making an agreement which specifies their responsibilities. In this light, the Geopark and the UNESCO World Cultural Heritage committee maintain a sufficient collaboration system.

E.2.3 INTANGIBLE HERITAGE

Ainu people maintain their local traditions. Place names in the area, many of which are based on Ainu words, implies the ties between the Ainu and local features. The Geopark already features *Camuichashi*, Batchelor Memorial Church, Ainu-origin place names and the connection of Ainu and past volcanic activities in the Geopark site list. Currently, the Geopark is working to share information and insights with locals on their rituals and customs, as well as the link between volcanic eruptions and the Ainu.

The Geopark has sought collaboration with Ainu people in the territory. Since 2017, the Council has attended the Ainu ceremony called *Kamuinomi Icharupa* (a festival of Ainu people's prayer to God and father's ancestry) in Toyoura and Toyoko. In February 2018, the Council organised a lecture on Ainu-origin place names and Ainu tradition in the Geopark by Mr. Yoshiyuki Uji, Chairperson of a local Ainu association (<http://www.toya-usu-geopark.org/archives/14232>). His lecture provided an excellent opportunity for Geopark stakeholders to learn about traditional Ainu culture. Three-year publicity project is underway from 2018 to 2020, through which a book on Ainu-origin place names within the Geopark will be produced. Working closely with Ainu people and related stakeholders, the Council has been engaged with introducing Ainu culture, which has survived to date.

On the other hand, Japanese settlers began to move from the mainland to Hokkaido during Edo and Meiji periods (in the middle to the late 1900s). Their traditions also remain in the Geopark area, with tools such as *shishimai* (lion dance), *dashi* (float) and Japanese drum. The revised Master Plan will also feature those aspects of intangible heritage.

Disaster Risk Reduction Culture

Governments and residents of Mount Usu-neighbouring municipalities have worked with academic specialists to address the prevent damages arising from repeated volcanic eruptions. Their exclusive efforts are referred to as the '**disaster risk reduction culture**', which is deep-rooted in the communities to coexist with Mount Usu. In 2000, the disaster risk reduction culture practically saved all lives as a result of successful prior evacuation.

Damage from Mount Usu Eruptions

Mount Usu is one of most active volcanos in Japan, which erupted nine times from 1663. Every time it erupted, the mountain caused severe damages with ballistic ejecta, ash falls, pyroclastic



Lecture on the Ainu-origin place names and Ainu Tradition in the Geopark (Feb 2018)

flow and volcanic mudflow, forming active volcanic faults and tilting the ground. What distinguishes Mount Usu area from other volcano-neighbouring areas is that the active volcanic zone is very close to the community. Such geographic characteristics made the community vulnerable to a volcanic eruption. From 1944 and 1945 Mount Usu repeated eruptions at the base east of the mountain, upheaving the ground by collapsing fields, houses and railways to form today's Mount Showa-Shinzan, one of the flank volcanos of Mount Usu. In 2000 Mount Usu erupted again, forming new craters underneath the highway and residences on the west of the mountain base. The factory and kindergarten were damaged by crustal movements and ballistic ejecta. Damage was 26 billion Japanese yen (200 million EUR), and some 16,000 people were forced to evacuate.

2000 Eruption: Evacuation Success and the Birth of Volcano Meister System

Despite significant damage on life and business in the communities, people recall that the 2000 eruption ended in a successful advanced evacuation. The first precursor earthquake was recorded on 27 March 2000. The headquarters to handle the event was formed in the municipalities where Mount Usu is located on the following day, and an evacuation advisory was issued on 29 March before the mountain erupted in the afternoon of 31 March. Although craters were formed in the residential area, it had no casualties because 10,000 residents near the eruption completed evacuation beforehand.

There are several reasons. First, the Usu Volcano Observatory of Hokkaido University was operated on site. Second, researchers working there and local government staff maintained close, frequent contacts via their good relations.

Nevertheless, the 2000 eruption raised people's awareness of remembering the event, making themselves well-prepared for the next possible events and increasing community capability of mitigating disaster damage. This was the beginning of the Volcano Meister system.

In 2008, the Toya-Usu Volcano Meisters certification system began as capacity building efforts for dealing with future Mount Usu eruption. Eligible candidates are those who live in the Geopark municipalities (Date, Toyoura, Sobetsu and Toyako), have accurate knowledge on the volcano and natural environment of the area, and are capable of acting to convey future generations their wisdom and experiences (URL: www.toya-usu-geopark.org/english/meister).

The occupations of certified Volcano Meisters are tourist association employee, Japanese hotel landlady, school teachers/staff, nature guide, mountain guide instructor, curator, visitor centre employee, ropeway operation company's employee, photographer, local chamber of commerce employee, Ministry of the Environment ranger, active ranger, independent business owner, homemaker, town assembly member and local government employee. They have different expertise and range in age from 20s to 80s. From 2015 to 2018, 17 members were added to the Volcano Meisters list, and 52 Meisters are engaging in activities as disaster risk reduction promoter as of October 2018.



Volcano Meister's certification examination in 2018

Lessons from the Pioneers

The origin of Volcano Meister initiatives is the achievements made by a few figures. In 1910, Mr. Seiichi Iida, then a Muroran Police chief, precisely forecast an eruption and successfully evacuated all residents from the site prior to the eruption. Iida experienced the eruption of nearby Mount Tarumae in 1909, received lectures by Dr. Fusakichi Ohmori, professor in seismology/volcanology

of Tokyo Imperial University, and studied papers on volcanic eruption. Such a background enabled him to convince local lawmakers and residents to evacuate. This was the world's first success in evacuation from volcanic event.

In 1944, Mr. Masao Mimatsu, then a local postmaster, drew a series of sketches of the formation process of the rising ground by making multiple observations over time from the same location, while in contact with professional scientists recording the data including the number of earthquakes. His sketches were eventually presented as a diagram that was critically acclaimed at the 1948 International Union of Geodesy and Geophysics meeting in Oslo, Norway. Afterwards, Mimatsu purchased the newly-formed mountain, today's Mount Showa-Shinzan, to preserve the site and raise the fund for the residents who lost their farmlands due to the eruptions. His will is still alive today, upheld in the form of regular learning opportunities of volcano and disaster risk reduction at Mount Showa-Shinzan. These cases clearly demonstrate that the 'UGGp practices', which aim to build a sustainable community through conservation and utilization of geological heritages, do exist in this area from more than a century ago. The efforts of Iida and Mimatsu were the best practices to show a scientist-resident-government partnership to realise the coexistence with the volcano, and this is the Volcano Meisters' ultimate goal.

Volcano Meisters Activities

In 2011, Volcano Meisters set up the Volcano Meisters Network, which enabled them to meet requests for lecturing and to share knowledge and information effectively. Volcano Meisters take full advantage of the network to speak about their evacuation experiences and the methods for reducing disaster risks at study groups, lead geo-tours and to promote the Geopark in and out of the region (URL: volcano-meister.jp).

From 2015 to 2018, there were 127 lectures given through the Volcano Meisters Network for 4,064 participants. In 2017, the number of Meisters' lecture participants (when the Meisters spoke within or outside the network capacity) totalled 20,000. 13 Meisters manage English, who respond to requests for tours and observation opportunities of non-Japanese speakers.

The Volcano Meister system has spread to other volcano-neighbouring areas. Mount Ontake region, Nagano Prefecture, started the volcano meister system, certifying eight Mount Ontake Volcano Meisters in March 2018. The similar system launched in Costa Rica, led by local staff responsible for disaster prevention who participated in a JICA programme on disaster prevention.



Volcano Meister's lecture for the local high school

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

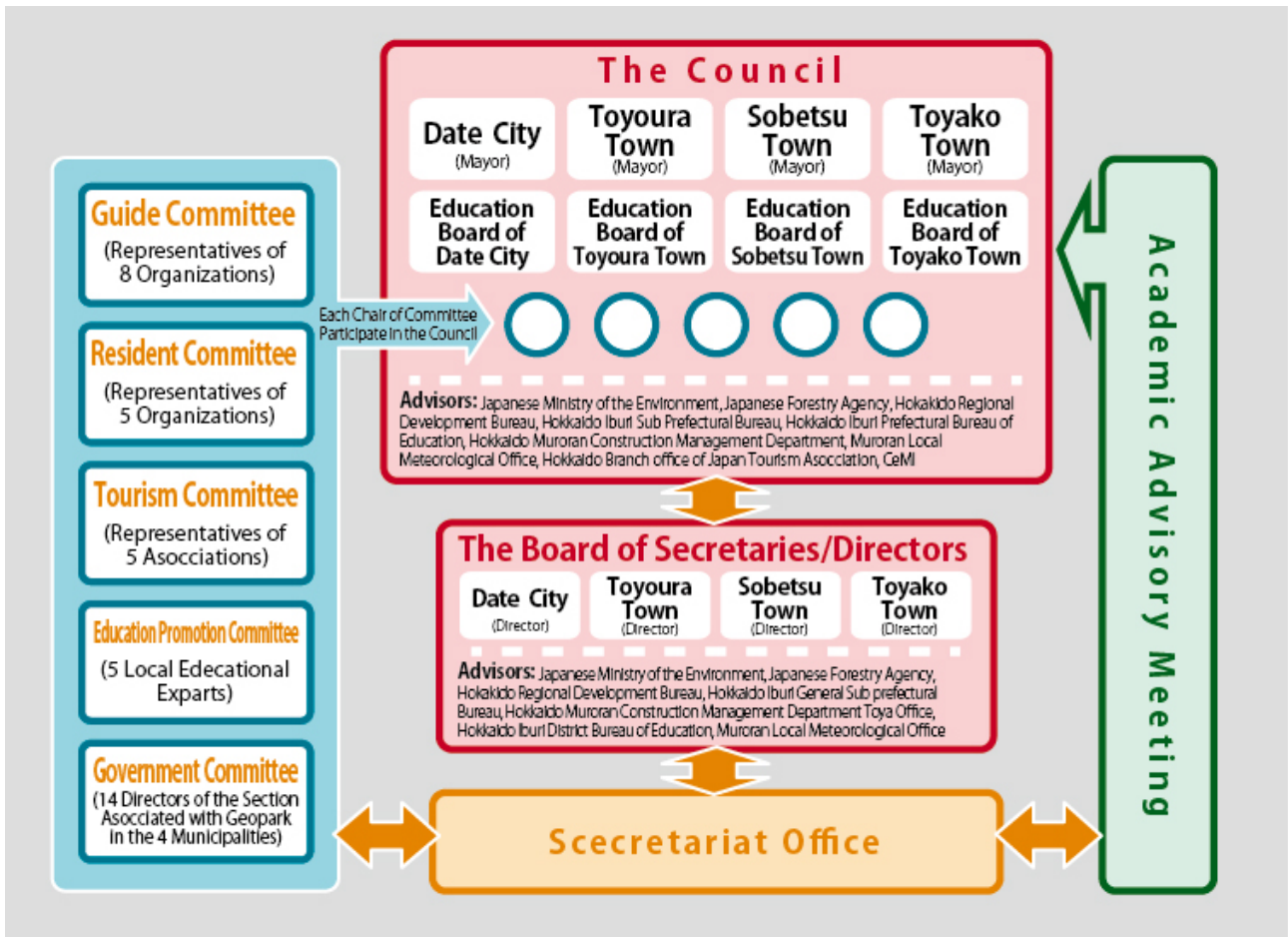
Geosites that Offers Opportunities to Think About Global Warming

Near the seashore, there are several sites (Kitakogane Shell Midden, Rebunge Coast) that show us the coastlines when the sea level was higher than today because of a warmer climate. This is described in guidebooks and guided tours, providing a good aspect of environmental education in addition to telling us the geology and lifestyle of the ancient times.

Damage from Mount Usu Eruptions and Disaster Risk Reduction Culture

(See E.2.3: INTANGIBLE HERITAGE)

E.3 MANAGEMENT



The Council independently manages the Geopark operational budget financed by four Geopark municipalities, and four secretariat staff working for the Council are directly employed by the municipalities. Since the Geopark became an official UNESCO programme, the Council's finance has been more vibrant. Expense increase resulting from the regular employment of a geoscientist in 2019 has been agreed among the Geopark municipalities. Note that the salary of the geoscientist will subject to his/her profile, such as age, past experiences and family background.

The financial statements of the Council are as follows.

(Unit: JPY)

Fiscal Year	Operation expense			Personnel expense
	Income	Expense	Balance	
2015	12,841,348	12,099,544	741,804	30,323,537
2016	15,312,861	14,798,680	514,181	30,553,940
2017	17,486,251	16,582,054	904,197	29,854,289
2018	18,465,000 (TBC)	(TBC)	(TBC)	(TBC)

(Note that the income sources are the contributions of the Geopark municipalities, the grant of the Hokkaido Government and other organisations. The revenue from guided tours and admission fees of facilities are not included.)

A regularly-employed geoscientist will be assigned to the Toya-Usu UGGp as of 1 April 2019.

The Council consists of local groups of residents, volunteers, guides, local tourism associations, educators, experts and administrators. The Academic Advisory Meeting also take part in the Council as external boards. The Council maintains a partnership with academic experts, educators

and locals with expertise, through academic advisory agreements with the partner institutions that they belong to. This partnership allows the Council to seek expert views whenever necessary.

Many women are committed with Geopark practices as professional geoguide and volunteer staff for the Geopark events.

Toya-Usu UGGp staff list (As of 1 April 2019):

	name	employment	function	skill	% time	Gender
1	Masato Takekawa	Permanent	Manager	Management	100%	M
2	Nire Kagaya	Permanent	Secretary	Management/design work/ disaster risk reduction education	100%	M
3	Asami Nakaya	Permanent	Secretary	Education/interpretation	100%	F
4	Taiki Tairaku	Permanent	Secretary	Tourism promotion/international communication	100%	M
5	Yoshiaki Hata	Contract	Secretary	Web administration/ Volcano Meister system clerk	100%	M
6	Yuki Nishi	Contract	Geoscientist	Volcanology	100%	M

E.4 OVERLAPPING

Efforts to be Authorized as UNESCO World Heritage Site

The UGGp has currently no overlap with other UNESCO programme. Two sites, Kitagogane Shell Midden (0.143 km²) and Irie Takasago Shell Midden (0.065 km²) comprise the Jomon Archaeological Sites in Hokkaido and Northern Tohoku. In July 2018 the national government decided to officially consider the submission of the site nomination for the UNESCO World Cultural Heritage. Combined area is smaller than 0.02% of the total Geopark area. The archaeological sites designed towards the World Heritage registration covers 17 historic remains located in 14 municipalities of Hokkaido and three prefectures of northern Tohoku. The boundary of the entire site is explicitly different from the boundary of the Geopark. All of the curators who are working on World Heritage registration make an agreement which specifies their responsibility, to serve a Geopark committee or the Academic Adviser Meeting, ensuring a sufficient collaboration with the Geopark.

E.5 EDUCATIONAL ACTIVITIES

School Education

The Council published outdoor learning textbook series. These textbooks are distributed every year to all local schools according to their requests. In 2018, 1,468 textbooks were distributed to seven schools. The Council also responds to the requests from elementary/junior high schools and the Boards of Education by assigning lecturers, who provide them with lessons on the Geopark and disaster risk reduction. In 2018, 17 lecturers spoke for schools, including all high schools in the Geopark territory through the Geopark education programme. They were funded by the Council. Since August 2017, the Council has organised Oousu mountain trekking events.

Lectures for Local Guides and Communities

In addition to the Toya-Usu Volcano Meister Network, 16 groups in total are engaged in the local guide and hands-on experience activities, at geosites and base facilities, such as eruption disaster

remains, Jomon archaeological remains, nearby forests and lakeside. They served for about 55,000 visitors in 2015.

The Geopark Partnership system launched in 2012 between the Council, guides and tourism operators. Currently, there are 157 members (“Geopark partner”). The Council has conducted a series of seminars for geopark partners, intending to help them obtain a comprehensive understanding of the Geopark and be trained to provide satisfactory performance. There were 22 seminars from 2015 to 2018. The Council also partially subsidises the Geopark partners who participate in APGN or national Geopark conferences and training sessions with their travel expenses. 22 of them were subsidised from 2015 to 2018.

The Council-hosted seminars were initially intended for guides alone because it aimed to help guides improve their Geopark knowledge and guiding skills. Although the Geopark Cafe event was alternately offered for ordinary visitors and residents, many of them applied for the seminars, which seemingly made the distinction of target seminar participants ambiguous. In response to this, the Council re-structured the seminar curriculum and event roles. Accordingly, the seminars were renamed from “Partner Lectures” to “Geopark Lectures”, some of which accept non-guide participants (e.g., lectures to obtain knowledge). Lectures which are intended for guides only will continue to restrict the target participants, with a rich selection of the “for guides”-labelled lectures.



Seminar for guides, led by a professional guide (March 2018)

The 2018 lectures are as follows (including scheduled ones).

2018 Geopark Lectures

No.	Date	Category	Topic	Place	Speaker
1	Sat. 21 Apr.	Volcanology, disaster prevention	Chronological measurement of Paektu Mountain, North Korea <small>When the mountain erupted so massively that volcanic ash fell in Hokkaido</small>	Date Culture Center	Prof. Mitsuru Okuno Fukuoka University
2	Sat. 28 Apr.	Guide skills	Risk management (for guides)	Abuta Fureai Center	Mr. Zen Yabuki Niseko Nature Guide
3	Sat. 12 May	Guide skills	Interpretation skills (for guides)	Abuta Fureai Center	Mr. Zen Yabuki Niseko Nature Guide
4	Sun. 3 June	Guide skills	Programme planning (for guides)	Sobetsu Town	Mr. Go Fukushima Toya BINOCOLO
5	Sat. 25 Aug.	Volcanology, disaster prevention	Volcano Meister training programme (lecture)	Date Disaster Prevention Center	Prof. Tadahide Ui Dr. Wataru Horose
6	Sun. 26 Aug,	Volcanology, disaster prevention	Volcano Meister training programme (field)	Date City, Sobetsu Town Toyoko Town	Prof. Tadahide Ui, Prof. Hiromu Okada, Dr. Wataru Horose, Mr. Hikaru Yokoyama, Mr. Yuji Ogawa, volcano meisters
7	Sat. 13 Oct.	Geopark history and culture	Let's watch excavations around Mount Usu! (Joint with Hokkaido Museum)	Toyoura Town, Toyoko Town Date City	Mr. Soeda (Hokkaido Museum), Mr. Aono (Date BOE), Toyoura-Date Remains tour
8	Sat. 10 Nov.	Geopark volcanology and disaster prevention	Volcano Geoparks, Magma Let's experiment to learn how volcano works	Toyoura Chuo Museum	Assoc. Prof. Masaya Miyoshi Fukui University
9	20 January 2019	Guide skills	Risk management (for guides)	Date Culture Center	Mr. Yuji Ogawa Toya Guide Center
10	3 March 2019	Geopark & SDGs	Let's Learn SDGs with Card Games	Date Culture Center	Mr. Kiyohiko Mizobuchi EPO Hokkaido
11	March 2019	Lifesaving	Advanced Life-saving Certification (for guides)	Toya Fire Fighting Union	Organized by West-Iburi Fire Fighting Union Notified to guides from the Council.

12	March 2019	Geopark nature and vegetation	How to research flora and fauna Bird/tree/flower/bud/leaf	TBC	Prof. Shiro Tsuyuzaki
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The Geopark Cafe event began in 2012. The temporary promotion booth at local event venues to serve local-made tea and sweets, and provided information on the Geopark. The event will continue, by shifting the target to those who do not know the Geopark well or who are not very interested in the Geopark.

Promotion of ‘Volcano Blessings’ with Story Book/Cards

In 2014, the Geopark collected local geo-stories to produce a geostory picture book, Toya Caldera and Usu Volcano Storybook: ONE DAY on top of 110,000 YEARS, featuring the cross-section of the ground. Intended for adults who live in the communities, this storybook compiles many different geo-stories in the area, namely the connections between the volcano-creating earth and various local assets such as Jomon culture, flora and fauna, agriculture, fisheries, hot spring and others. It uses a plain writing style and illustration, but the production was time-consuming. The Council interviewed academic advisers, agricultural experts, local nature guides and local farmers/fishery workers, to make up the story bases; while many others were committed to checking, editing and modification of texts and illustration all through the process. As a result, this storybook has been highly appraised by locals.

Subsequently, story cards were produced as a spin-off of the storybook. As they focus on local foodstuff, the cards are enclosed with local food gift boxes to tell the exclusive value of Geopark products. Storybook’s illustration is also used for tote bag, cards, and large-size picture book for event-use.

E.6 GEOTOURISM

Promotion of Educational and Inbound Trips

Toya-Usu Region is an established destination for educational trips to Japan. However, the number of school visitation has become stagnant compared to the 1990s (before the 2000 eruption). To address this situation, the region’s municipal offices and tourist associations have developed a publicity strategy in Japan’s metropolitan and Tohoku (northeast Japan) regions, as well as organised promotional campaigns three or four times a year jointly with the Noboribetsu/Toya Tourism Council and the Hokkaido Tourism Organization. The Council organisational secretariat members joined the activities. The Geopark markets ‘disaster preparedness education by using the Geopark’ package to schools and travel agencies. This is a combination of outdoor learning textbooks and disaster risk reduction education guided tours conducted by Volcano Meisters. Although overall arrivals for educational trip continue to decrease partly due to the declining child demographics, there is an increasing number of schools for learning disaster risk reduction.

Since 2014, overall tourist arrivals to the region have been increasing; reaching 1.36 million in 2017. It is noted with a remarkable increase in Asian tourists: In 2017, Trip Advisor Japan chose Lake Toya for the most photogenic spots in summer for non-Japanese tourists. In response to this recent trend, the Council produced English-written Geopark materials, which are placed at lobbies and guestrooms of local hotels, and a Japanese-English poster that illustrates how the hot spring is sourced. The poster appears at hot spring facilities in hotels and two public footbath sites, reminding the bathers that hot spring is the ‘very’ volcano blessing.

Local Events

The Toya-Usu UGGp organises and participates in events on 'Volcano Blessings'.

- Food-related events to promote Volcano Blessings
 - February 2015: Geopark pizza cooking class (4 classes)
 - February 2016: Yakuzen meal workshop (4 sessions)
 - March 2016: Geo-harvests talk session & cafe (discussion of local tourism operators, broadcast live on radio)
- Geopark pizza/hot sandwich service at local events (17 events)

The Geopark also joins sports and food events held within the Geopark territory, which includes:

- Showa-Shinzan International Yukigassen (snowball fight) in Sobetsu
 - The event is held annually in February. In 2018 event which was 30th anniversary, a total of 142 teams were entered from Canadian, Finnish, Chinese and Japanese regions, with 26,000 visitors. The Geopark installed a public relations booth from 2015 to 2018.
- Toya-Usu UNESCO Global Geopark Toyako Marathon in Toyako and Sobetsu
 - This is held annually in May with 6,700 participants (2018 figure). The Geopark placed an article about the Geopark in the programme booklet.
- Hokkaido Two Day March in Toyako, Sobetsu and Toyoura
 - This is held annually for two days in September with 1,000 participants (2017 figure). The Geopark placed an article about the Geopark in the programme booklet.

E.7 SUSTAINABLE DEVELOPMENT & PARTNERSHIPS

E.7.1 SUSTAINABLE DEVELOPMENT POLICY

How to Address Repeated Eruptions and Subsequent Damages

Every time it erupted, Mount Usu brought serious damage on the community's economy and daily life, with ballistic ejecta, ash falls, pyroclastic flow and volcanic mudflow, forming active volcanic faults and tilting the ground. To ensure the sustainability of the Toya-Usu UGGp, it is critical to make the community well-prepared for future eruptions and invulnerable to their damages to the maximum level. Additionally, the Geopark should encourage new actions and collaborations to add values to existing assets of the Geopark, by using the stories which look at many aspects of the volcano from geology, topography, ecology, history and culture.



Eruption on the foot of Mt. Usu in 2000

Sustainable Development Policies of Toya-Usu UNESCO Global Geopark

The Geopark takes full advantage of the disasters and benefits. To prevent past volcanic eruptions and the resulting disasters from fading away, the Geopark preserves buildings and roads in affected areas as disaster remains and employs the resident-centred education to mitigate future disaster risks (**disaster risk reduction culture**). Meanwhile, the Geopark is bestowed by the volcano with magnificent landscapes of caldera lake, lava dome with steam and wild-appearing craters, along with hot springs that everyone admires for its comforting power (collectively referred to as the '**volcano blessings**').

The Geopark will set up the following policies, based on the viewpoints from disaster-preparedness, value-adding actions and collaborations as well as the local assets of 'disaster risk reduction culture' and 'volcano blessings'.

For the local community, Toya-Usu UNESCO Global Geopark will **reduce disaster damages with the culture of DISASTER RISK REDUCTION, increase the local value with VOLCANO BLESSINGS, and combine the two priorities to accomplish the sustainable community.**

For the international community, Toya-Usu UNESCO Global Geopark will **contribute to lower risks caused by geological hazards by spreading our knowledge on DISASTER RISK REDUCTION, contribute to the global promotion/branding of geo-tourism with VOLCANO BLESSINGS, and realise the sustainable global community through GGN.**

Planned Projects

The Sustainable Development Policies of Toya-Usu UNESCO Global Geopark will prioritise the following projects from 2019 to 2022.

: Disaster Risk Reduction Education Empowerment (DRR-E) Project

This project aims to familiarise all schools located within the Geopark territory with the education on the Geopark and volcanic disaster risk reduction. The Council will enhance and enrich the activities to local schools. Specifically, it promotes outdoor learning textbooks and Volcano Meisters' lectures.

: Disaster Risk Reduction Culture (DRR-G) Global Project

Disaster risk reduction culture and Volcano Meister system, two significant efforts of the Geopark, will be introduced and promoted globally, in cooperation with the DRR working groups in GGN and APGN.

: Total Destination Development (TDD) Project

The project intends to develop tour routes/activities that cover a whole area of the Geopark, by reorganising existing information on nature, history and tangible/intangible culture, as well as geoscientific information prior to the birth of Lake Toya. Geosites, related sites, transports (public transport, rented car, bike) and activities will be all reintegrated, and will be available online, and via multilingual brochures.

: UGGp-brand Inbound Promotion (BIP) Project

Toya-Usu UNESCO Global Geopark area is an international tourist destination, accommodating 480 thousand (2017) overnight stays of non-Japanese tourists. Leveraging the trend, the project is designed to promote the UGGp brand and value to overseas tourists. The existing tool has been used to appeal the inbound tourists. The information kiosk is installed at major tourism spots, railway stations, bus terminals, and all hotels in the hot spring area. Brochures are placed at hotel guest rooms. The Geopark exhibition space in the Toyako Tourism Information Center provides poster and digital signage presentations of 140 UGGp regions along with the photos of domestic and international UGGps. These existing tools will be more effectively used to conduct branding campaigns of UGGp and geotours.

E.7.2 PARTNERSHIPS

Geopark Partnership System

The Council has operated the Geopark Partnership system since 2012. This is intended to familiarise local guides who started the career prior to the UGG certification with the Geopark and network with those guides for the Geopark promotion. There are currently 157 members. The Council hosts lectures that provide the member guides with necessary skills and knowledge.

Symbolic Food Menu (Geopark pizza, hot sandwich): Restaurant Certification

Prior to the development of the symbolic food menu, the Council made a list of 314 locally produced food ingredients, and released it online. It was clarified from the list that a small volume, but a variety of seasonal foodstuffs, are available throughout the year in the Geopark region. The Council combined the foodstuffs with geo stories, to invent casual and tasty meals, namely, Geopark pizza and Geopark hot sandwich (URL: www.toya-usu-geopark.org/deli).

In accordance with the guidelines, three restaurants are certified to serve Geopark pizza and hot sandwich: Namihey Pizza, Toyoura; Restaurant Karzz, Toyako; and Parlor Fukuda, Toyako.

Meanwhile, the Council published two issues of 'Geo Food' free paper that promotes the food brand in the area in 2016 (featuring geo harvests) and 2017 (featuring food ingredients). 10,000 copies for each issue were placed at Michi-no-eki and tourism associations across Hokkaido.

Partnership with Local Business Operators

Usuzan Ropeway of Wakasa Resort Co., Ltd. has worked on providing information effectively and successfully enhancing the Geopark brand. Banners are placed within the facilities, souvenirs are sold at stores, and Geopark exhibition spaces are independently set up at the ropeway stations (on the mountain base and at the top), to make visible appeals to visitors. Simultaneously, the staff provides visitors with quality guided tours, with an increasing number of attendance from 7,826 in 2015 to 9,100 in 2018.

Donan Bus Co., Ltd. has operated bus services since winter 2015 to connect between Mount Showa-Shinzan, Toyako Hot Spring Resort and Silo Observatory. Hokkaido Tourism Organization initially funded it, and Donan Bus budgeted one additional service in 2018, when the route was named the Geopark Line.

These are two best business practices of Geopark partners.

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

NPO Toya-Usu Geopark Friends

The Toya-Usu Geopark Friends (TUGF), headed by Mr. Saburo Mimatsu, was established in April 2009 prior to Toya-Usu Geopark's GGN registration. Working with Toya-Usu UGGp, TUGF continues grass-rooted Geopark activities so that they learn and transmit the disaster risk reduction culture, promote the community appeals, lead guided tours and build capacities of members. There are currently 134 members. The activities from April 2017 to March 2018 are as follows.

No.	Date	Category	Event	Place	Note
1	9 Apr.	Geosite maintenance	Shinzannuma Observatory Park outcrop maintenance	Mt. Donkoro	7 participants
2	15 Apr.	Volcanic disaster preparedness	Geotour: Mt. Showa-Shinzan trekking	Mt. Showa-Shinzan	59 member participants
3	28 Apr.	Volcanic disaster preparedness	Geotour: Mt. Showa-Shinzan trekking	Mt. Showa-Shinzan	42 non-member participants
4	29 Apr.	Economic revitalization	Guide seminar	Usuzan Ropeway	7 participants
5	13 May	Geosite maintenance	Mt. Yosomi Observatory surroundings maintenance	Mt. Yosomi	16 participants
6	20 May	Volcanic disaster preparedness	Geotour: Mt. Usu Studies	Mt. Usu Crater Floor	88 participants
7	28 May	Social education	Mt. Monbetsudake trekking	Mt. Monbetsudake	6 participants
8	9-11 Jun.	Others	Observation of Tohoku region (handcraft group)	Aomori, Akita	8 participants
9	13 Jun.	Geosite maintenance	Rope installation at Mt. Orofure	Mt. Orofure	12 participants
10	17 Jun.	Social education	Mt. Orofure trekking	Mt. Orofure	6 participants

11	18 Jun.	Economic revitalization	Maintenance of road landscape, gathering of walnut/wild vine tree bark	main roads	12 participants
12	1 Jul.	Economic revitalization	Maintenance of road landscape, gathering of walnut/wild vine tree bark	main roads	12 participants
13	1 Jul.	Geosite maintenance	Maintenance of railway bridge remnants memorial park and Shinzannuma Observatory Park	Iburi Railway Bridge Remnants Memorial Park	22 participants
14	15 Jul.	Others	Kitahiyama Explore group visit of Ota Shrine	Kitahiyama	7 participants
15	19 Jul.	Geosite maintenance	grass cutting at Former Toyako Kindergarten	Former Toyako Kindergarten	8 participants
16	23-27 Jul.	Others	UGGp revalidation	whole Geopark area	20 participants
17	6-7 Aug.	Volcanic disaster preparedness	Forum to mark the 40th anniversary of 1977 Mt. Usu eruption	Community Centre Yamabiko	107 participants
18	24 Aug.	Geosite maintenance	Shinzannuma Observatory Park outcrop maintenance	Mt. Donkoro	7 participants
19	2 Sep.	Others	Toya Yogosan campaign	National highways in the area	10 participants
20	9-10 Sep.	social education	Hokkaido Geopark Guide training	Mikasa area	19 participants
21	23-24 Sep.	Others	Shimokita Peninsula 'bullet' tour	Shimokita Geopark	23 participants
22	24 Oct.	Geosite maintenance	Rope removal at Mt. Orofure	Mt. Orofure	12 participants
23	25-27 Oct.	Volcano seminar	Staff dispatch to JGN Conference	National conference in Oga-Ogata area	8 participants
24	3 Nov.	Economic revitalization	Workshop on walnut/wild vine craft-knitting	Sobetsu Information Centre 'i'	11 participants
25	1 Jan.	Others	New Year's Day Trekking of Mt. Showa-Shinzan	Mt. Showa-Shinzan	Cancelled due to bad weather
26	20 Jan.	Others	Mt. Yosomi snow-shoe hiking	Mt. Yosomi	11 participants
27	27 Jan.	Others	Scenic Night in Sobetsu	Sobetsu Information Centre 'i'	6 participants
28	12 Feb.	Social education	Winter Orofure tour for frost-covered tree watching	Mt. Showa-Shinzan	32 participants (the venue changed due to bad weather)
<p>Regular activities: Production/sales of Geopark PR goods (poro-T, tree bark crafts), with the sales of 325,550 JPY in 2017. Mountain (Usu, Showa-Shinzan) guide activities: served for 2,616 visitors from 164 groups in 2017. 28 staff in total contracted the national Highway use questionnaire and photographing project with Hokkaido Regional Development Bureau. Information dissemination via website/Facebook Awards: 2017 Community Regeneration Award (merit)</p>					

Ainu Culture and Geopark (See E.2.3: INTANGIBLE HERITAGE)

Publications Placed at Public/Store Waiting Spaces

Books and brochures published by the Council, as well as Geopark magazines issued by Japanese Geoparks Network, were distributed to 46 Geopark-related facilities/groups. Since 2017, the publications have been placed region-wide at 36 banks/post offices, 32 hospitals/clinics, 27 dentist clinics, 23 pharmacies and 95 beauty salons, for public reading. According to the questionnaire to the readers/facility staff, their responses were quite positive, commenting "It was a fantastic material", "Am enjoying the books", "Mother and her child looked fun while reading together", and "Please send them regularly". The Council will continue this action.

Visibility Improvement in the Community

Each municipality-designated garbage bag (NB: Residents must use garbage bags designated by their municipality for combustibles/non-combustibles) is labelled with the message “xxx (the municipality name, i.e., Date/Toyoura/Sobetsu/Toyako) is the UNESCO Global Geopark municipality” and the Geopark design logo. Geopark municipality residents find the printed message and logo on the garbage bag whenever they use. Additionally, the Geopark mark is printed on traffic safety campaign flags and banners so that local people easily recognise the Geopark image from the flags/banners on the road, on the wall of municipal office buildings, Michi-no-eki sites and railway stations.

E.8 NETWORKING

Contribution to GGN and Networking

UGGp regions are required to be actively committed to natural/geological hazard readiness in the world and capacity building for such efforts. The Geopark’s achievements, including the preservation of disaster remains for a hazard-prevention purpose, and the certification of Volcano Meisters, collectively referred to as the **disaster risk reduction culture**, are the world-leading practice to effectively respond to natural hazards. The best contribution that Council can make to UNESCO and its SDG initiative is to promote our disaster risk reduction culture to the whole GGN. Under this belief, the Council presented the effectiveness of disaster risk reduction programmes at various international conferences of GGN and APGN.

Dispatching UGGp Evaluator

The following secretariat staff has been dispatched to the revalidation process as an evaluator, in response to the request of UNESCO.

- Mr. Nire Kagaya Evaluation for Keketuohai, China in 2016
- Revalidation for De Hondsrug, Netherland in 2017
- Revalidation for North Pennines, the United Kingdom in 2018

Contribution to APGN and Networking

Mr. Nire Kagaya and Mr. Yoshiaki Hata from the organisational secretariat, and Ms. Emiko Kawaminami from the Volcano Meister Network, are the members of APGN Capacity Development Project for Asia-Pacific Region. This project is a collaboration between Japan-based UGGps and Aspiring UNESCO Global Geoparks in Japan, which aims to assist new UGGp launch in Asia-Pacific region and to create capable Japanese staff who promote UGGp international exchange/commitment. This also intends to address issues that participating regions have and to invigorate the networking in Asia-Pacific regions.

In 2016, the project invited the key persons from UGGp-aspiring regions in Asia (Thailand, Malaysia and Vietnam) to four conferences: international forum in Niigata (July), English Riviera International Conference (September), National Conference in the Izu Peninsula UGGp (October) and a meeting in Tokyo (December). In 2017, the project operated a booth at the 5th APGN Conference (September), invited the key persons from UGGp-aspiring regions in Cambodia, Indonesia, Kazakhstan, Myanmar, Nepal, the Philippines and Thailand to Toya-Usu UGGp and National Conference in the Oga-Ogata region (October), and organised a joint workshop in Thailand (November). These projects have benefitted Cao Bang in Vietnam, Satun in Thailand and Ciletuh-Palabuhanratu in Indonesia, which were newly included in the UGGp Network in 2018.

The project also worked on joint publications between UGGps in China and Japan (from 2017 onwards) and between eight UGGps in Japan (2018).

The Geopark started the training programme in June 2016, lecturing on Geopark activities and its importance, UGGp application and evaluation process, and features of Toya-Usu UGGp (i.e., disaster risk reduction culture and volcano blessings). By April 2018, the Council accepted 14 groups with 165 trainees from 37 countries. Groups include UGGps from Hong Kong in China, Mudeungsan and Jeju Island in South Korea, Langkawi in Malaysia; Geopark-aspiring regions



UGGp lecture course for the trainees of JICA (Japanese international cooperation agency) on 1 Nov, 2016

from Jeonbuk West Coast, Danyang and Yangpyong-gun in South Korea and Nevado del Ruiz in Columbia. Notably, the Nevado del Ruiz region launched activities to become the first UGGp in Columbia as a result of the programme participation. Detailed information on the programme is available online (<http://www.toya-usu-geopark.org/english/uggp>). The application can be made online, too.

Networking with Japan’s UGGps and National Geoparks

The Toya-Usu UGGp participates in the annual national conferences, workshops and working group meetings (international commitment, disaster risk reduction, guiding activities, evaluation standards). The organisational secretariat’s Director General and administrative staff, as well as local guides and Volcano Meisters, respond to requests from different regions across Japan for giving lectures.

Efforts for Geopark promotion in Hokkaido include a special Hokkaido-based Geopark exhibition at Hokkaido Museum in 2016, which accepted over 59,000 visitations. Two UGGps and three National Geoparks are based in Hokkaido. For increasing the Geopark brand power, these five regions collaborated to carry out a variety of projects for children and adults, placed featured articles on magazines and other media, conducted geotours at individual Geoparks, and presented gifts for visitation.

Collaboration with University

The Geopark entered into the partnership agreement with the Hokkaido University Museum in December 2018. This partnership is expected to bring advantages to a variety of activities in academic research, education, community development and disaster risk reduction.

E.9 SELLING OF GEOLOGICAL MATERIAL

Geological materials are neither exploited by any Council member organisations, nor sold at main museums, information centres or related facilities within the Geopark. The same applies to all Geopark events.

F. CONCLUSION

Under the theme of coexistence with the volcano, our two best practices, disaster risk reduction culture and volcano blessings, have been long-supported by many people both in and outside of the region. These values were established before the region was recognised as Geopark, have achieved the standards, and will continue to be upgraded. Disaster risk reduction education is our best practice, which has been promoted out of the Geopark region, including all regions with active volcanoes. Additionally, the Geopark has accomplished the following progress over four years.

- Recruited a geoscientist.
- Advanced collaboration/network with affiliated organisations.
- Improved the UGGp visibility significantly.
- Reorganized the institution of local guide supporting lectures.
- Advanced promotional activities by using 'volcano blessings'.
- Increased Geopark education practices for local schools.
- Worked on successor-building and their commitment, which is inevitable to refresh the organisation.
- Stimulated community activities, increasing the number of Volcano Meisters and Geopark partners.
- Promoted cooperation with Japan's indigenous Ainu people.
- Widened categories of projects in accordance with the shift to the UNESCO official programme, thus leading to enhancing international collaboration and networking.

To look ahead, the Geopark will continue the disaster risk reduction education within/without the Geopark region (DRR-E, DRR-G). Simultaneously, the Geopark will leverage the network and achievements that we accumulated over a decade of UGGp status, to commit to branding activities (BIP) (See E.7.1 SUSTAINABLE DEVELOPMENT POLICY). The challenge may be that the major spots and visitation concentrate on Mount Usu and Lake Toya; It will be necessary to make the whole region the place to visit. In this standpoint, the Geopark will restructure/reorganize geoscientific data of the region ranging from over 110,000 years ago when Lake Toya was formed, to Jomon and Ainu Culture periods, as well as sort out tangible and intangible cultural assets, in order to develop new geo-tour routes/courses that provide visitors with fun-making Geopark activities (TDD). These projects will be our priorities for the next four years.

