DIGITAL 9th International Conference on UNESCO Global Geoparks

제9차 유네스코 세계지질공원 총회

12-16 December, 2021
Jeju Island UNESCO Global Geopark, Republic of Korea
2021.12.12-16, 제주도 세계지질공원

FUN GEOPARK IN JEJU

Jeju 제주특별자치도
Jeju Special Self-Governing Province

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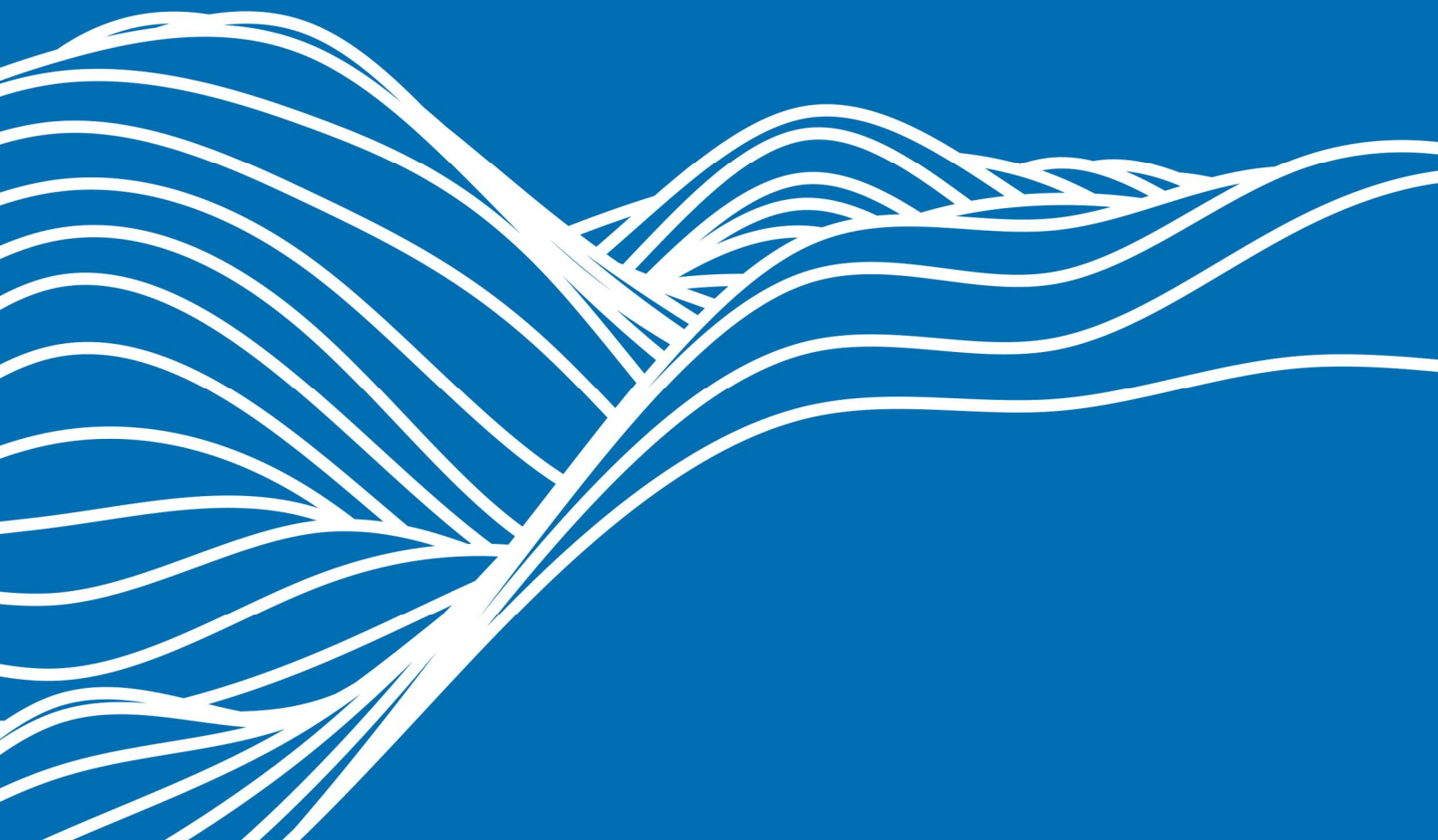
Poster



The Calabarzon Geopark – Perspectives For The Second Geopark Of The Philippines And A Role-Model In Resilience

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The Calabarzon Region of the Philippines, south of the bustling capital, Manila contains the Macolod Corridor, a northeast-southwest oriented volcano-tectonic field. Geoheritage with national to global significance occurs here, such as one of the Decade Volcanoes, the Taal Caldera which recently erupted (2020 January), the active Mt. Banahaw, or the popular Seven (Maar) Lakes of San Pablo and several other monogenetic volcanoes. It is an important research area due to its atypical tectonic setting, compared to the generally north-south trending subduction zones and arcs of the Philippines. Due to its proximity to Manila, it is an area frequented by tourists and also highly populated, meaning a high exposure to hazards.Here, we present the potential of establishing a geopark at the Macolod Corridor area, namely the Calabarzon Geopark that could function as the second geopark of the country after Bohol (Aspiring UNESCO Global Geopark). A preliminary list of geosites was selected with geomorphological- and geodiversity mapping and extensive fieldwork. We collected some examples of good practices, facilities and elements of key infrastructure that are already present in the area or could be implemented in the future, during the executive planning phase of the geopark. Finally, we put a special emphasis on the role of disaster risk reduction and improvement of resilience with geoheritage, as the area is heavily affected by geohazards (volcanism, earthquakes, typhoons) and geosites of past events could help in improving the resilience of locals and visitors as well.

Keywords: Calabarzon, geopark potential analysis, resilience, Philippines
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Reference:
N/A

Exhibition " Understanding Climate Change: Exploring The Consequences In The Geological Record. Cenozoic Ecosystems And The Current Threat"

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Exhibition: " Understanding Climate Change: Exploring the consequences in the geological record. Cenozoic ecosystems and the current threat"Lesvos island UNESCO Global Geopark sets as one of its major priorities the fight against climate crisis and the activities for supporting the local community on climate change understanding and adaptation through various initiatives. Through exhibitions and public events we utilize the Lesvos Petrified Forest, a unique natural monument, to present past climate changes during the last 20 millions years. We exhibit the excavation findings as climate change indicators for the reconstruction of the paleo-environment and the paleo-ecosystems and to demonstrate the severe consequences of the past climate changes that led to the extinction of many plants and animals. Through educational programs and activities on climate change we transform the Lesvos Geopark to a learning platform on climate change for the young generation. On 2021 Lesvos island UGGP designed and organised an exhibition entitled " Understanding Climate Change: Exploring the consequences in the geological record. Cenozoic ecosystems and the current threat". The aim of the exhibition is to introduce to the public the unique natural monument of Lesvos, the Lesvos Petrified Forest, and to raise public awareness on climate change through presenting past climate changes and their consequences. It explores the question about the impacts that climate change has on ecosystems during the history of Earth. Using the example of the Petrified Forest of Lesvos in Greece, we convey how we can learn from the processes that have repeatedly changed our planet over millions of years to shape our own future.The exhibition includes impressive parts of petrified tree trunks, leaves, branches, roots, fruits and volcanic rocks, as well as detailed information material about the Lesvos Petrified Forest. All these exhibits are indicators of past climate changes. The visitors have thus the opportunity to understand in depth the history of the Earth and how climate systems have worked. The information materials lead them to realize how humans are currently massively intervening in these large-scale and long-term processes and which might be the potential impacts of such interventions. The exhibition is held at Messel Pit Fossil Site, an Unesco World Heritage Site, in collaboration with the Geo-Naturpark Bergstraße-Odenwald Unesco Global Geopark from July 10th 2021 to 15th May 2022. Unesco Global Geoparks can effectively join forces in the fight against climate change by organising a variety of engaging activities and events. For example, this exhibition could travel to other Unesco Global Geoparks and be part of the Unesco Global Geoparks' campaign to raise awareness on climate change and biodiversity loss around the world and their effort to contribute to climate change mitigation through education and sustainable regional development.

Keywords: Lesvos Petrified Forest, Climate Change Indicators, Sustainable Development Goals, Geoparks Networks, Museum Exhibitions

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Reference:

https://www.ruritage.eu/news-events/exploring-the-consequences-of-climate-change-in-the-geological-record-an-internatonal-exhibition/

The Case Study of Build Back Better at Aso UGGp: The Geotourism Reconstruction Process After the Massive Earthquake

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Aso Volcano Museum is a private foundation museum that focuses on volcanology for 40 years. It is a main facility that has been involved in the Geopark activities and Education programs in Aso from the dawning age. However, the 2016 Kumamoto earthquake brought a huge impact and change on the Aso Volcano Museum's educational Geotours.[Recovery period: 2016-2017].In the case the large-scale disaster occurs, everything begins with the extreme situation of personal "survival" and the "collapsed" museum. The challenge was how to reconstruct as a museum without exhibits in the building. Therefore, we developed a field trip program to meet the demand that people want to look at the damaged area.From 2016 to 2017, more than 3,000 people took advantage of this tour, which was very important for the museum economically, as there were no general visitors expected.[Reconstruction period: from 2018 to 2020]After 2018, the tour was evolved from "damage description" to "earth science processes and disaster preparedness". This change is due to the fact that the people's interest of affected areas decreased dramatically over the past year. Moreover, we could use the Geopark programs effectively. After the disaster, the Aso Geopark office and the Geoguides took the lead in actively conducting surveys in the affected areas. The result was provided to museum curator immediately. The curator was able to evolve the implement programs because the Geoguides had a background in earth science before the disaster. More than 19,000 people have participated in these programs from 2018 to 2020.Hence, Geopark is a program that can be of great help in disaster recovery and reconstruction. As one of the geoparks that has been affected by a large-scale disaster, we would also strongly recommend that other Geoparks and Aspiring areas value human relationships between stakeholders and Geoguide.

Keywords: Earthquake, Museum Education, Geo-hazard, build back better, Sendai Framework for Disaseter Risk Reduction
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Strategies to reduce volcanic risk in a resilient Geopark.

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Volcanoes are emblematic elements of the landscape of Lanzarote. Their presence is a clear reminder of the relevance volcanoes have on the island as a whole, and overall, in all the Canary Islands. Ongoing efforts on behalf of the local society to adapt to a volcanic land, have led them to be able to find a valuable source in the resources of nature, resulting in a unique culture, and raising awareness regarding the landscape, the values and even limiting factors. Lanzarote and the Chinijo Islands are a unique true role model of places where the geological features of an island can be respected. Some of them have helped when it comes to the area being recognised as a Geopark. However, living on a volcanically active island, poses a clear threat when carrying out normal lives and when managing the island. In this regard, volcanism has evidently become a source of wealth, although the possibility of a new eruption process is a collective challenge that this society must be ready to face. Ever since 2019, the Lanzarote and Chinijo Islands Geopark have promoted a series of actions aiming to contribute to the reduction of volcanic risk on the island, in order to have a more resilient society with a higher capacity to respond. Up until now, those actions have had a double goal: To improve the capacity to understand the volcanic phenomenon in Lanzarote, as well as raising awareness regarding the importance of a Plan of Action when facing possible eruptions in the future. To help understand the concepts of danger, risk and vulnerability.The implementation of this line of work is based on four essential facts:1. The Canary Islands are volcanically active (Lanzarote has had historic eruptions in the past three hundred years. One of them was the longest active period on the islands).2. The islands are geographically limited, fractioned and they are far when it comes to state resources available to help face volcanic emergencies, which limits a possible immediate response.3. The islands' population is on the rise, which has led to a clear increase of people exposed to possible volcanic threats in the past few decades.4. On the island, there is a clearly low perception of the volcanic risk, due to the low frequency of eruptive episodes, which makes our society more vulnerable when it comes to facing this type of situations.To date, all activities have been aimed at professionals, closely linked to the emergency management on the island of Lanzarote. For instance, the talks on how to "Reduce Volcanic Risk; from knowledge to planning, that took place in 2019, in pre-pandemic times. Throughout 2022, the aim is to resume that line of work, expanding the profile of the target audience so everyone can become aware. If our society is trained, well informed and aware of the nature that surrounds us, they shall be capable of reducing the impact of threats in nature.

Keywords: Lanzarote, volcanic risk, Geopark, Resilience

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