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International Conference on UNESCO Global Geoparks

Poster



Producing Geopark Products with Local Businesses

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Since 2017 the Hakusan Tedorigawa Geopark (here-in referred to as HTG), located in Japan, has been conducting a project called the "New Product Development Project", which involves providing funding to local businesses who pledge to produce a new product using the theme and/or logo of the HTG. The short-term goal of the project is to create new products that can be sold as HTG products, and to start forming connections with local businesses. The long-term goal of the project is to use the branding power of the HTG to empower local businesses to produce sustainable, long-selling products. Over the last four years, 11 businesses have developed over 13 new products for the HTG. This year we conducted a survey in order to discover the strengths and weaknesses of the project, and plan how to continue the project more effectively. We discovered that while most businesses were fairly satisfied with the project, they were unable to sell as much as they had planned, and only a small number of participants were continuing to actively promote and sell their products. Therefore, we believe that we need to put more effort into developing appealing products, as well as the promotion and availability of the products. Despite wanting to use this project to built new connections with local businesses, the majority of the applicants were already connected to, or in close communication with the HTG. Therefore, we believe that the project itself needs to be promoted through a wider variety of media to attract businesses not yet connected to the HTG. Overall the HTG branding alone did not seem to have an effect on the purchasing of the products, but as geoparks are still relatively new both nationally and globally, we believe that over time the awareness of geoparks, and the HTG will increase over time. Thus, the continuation and improvement of this project is vital in achieving our long-term goal of sustainable product development and sales.

Keywords: Geopark, sustainable development, tourism, regional development

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Sustainable Development of Community Economy ---- Leigiong UNESCO Global Geopark as an example

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Leisure Agriculture is considered as a growing global "sunrise industry". Developing leisure agriculture and rural tourism are effective measures to promote the healthy, rapid and sustainable development of local economy in geopark. The excellent geological environment and climatic conditions of Leiqiong UNESCO Global Geopark favour the cultivation of varied agricultural products, especially pineapples. Taking full advantage of this, Leiqiong further exploits the opportunity to develop its unique local resources and combines leisure agriculture with rural tourism, sale of agricultural produces and science popularization, such as creating "Pineapple Sea" AAA level tourist attraction, selling agricultural produces through live-streaming and holding pineapple culture festivals. This is able to provide long-term economic benefits to local community and at the same time promoting the concepts of UNESCO Global Geopark and sustainable development of local economy.

Keywords: leisure agriculture, rural tourism, science popularisation, sustainable development Corresponding author: 3152981297@qq.com Reference: Overall plan of Pineapple Sea

Local Communities as Engines to Shift the UNESCO Global Geoparks to the Heart of the 2030 Agenda for Sustainable Development

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A research study recently done regarding the contributions of the UNESCO Global Geoparks (UGGps) for the 2030 Agenda for Sustainable Development involved the analysis of several sources that brought new light regarding this reality. Among them, especial focus was given to the interviews done to some elements and local inhabitants/stakeholders from the transnational Marble Arch Caves UGGp (Republic of Ireland & United Kingdom of Great Britain and Northern Ireland). These interviews allowed to compare the obtained data and brought a new light about what is written, for example, in the Progress Reports. It was interesting to understand what is effectively felt by the local inhabitants regarding the developed activities integrated in the management plan of this UGGp. It was also relevant their interpretation about the impacts of the developed activities in this territory. Furthermore, the interviews were done to obtain more detailed information about the awareness and degree of knowledge of the interviewees regarding the 2030 Agenda and its 17 Sustainable Development Goals (SDGs). By doing so, it was possible to have the perception of which SDGs were more relevant for the staff team and for the local inhabitants of this UGGp. In this sense, this research study highlighted the need of the UGGps management structures to assume their commitment to develop activities aligned with the targets and indicators of the SDGs. This commitment can be a way of promoting these territories, while educating and sensitizing local populations and visitors to the achievement of this global endeavor. However, this strategy should be defined in an articulated way considering the needs of the local inhabitants. In this context, the local communities can be more involved in the managing process, creating solid bonds between them and the managers of the UGGps and to accomplish the 'territorial bottom-up approach strategy', reinforced by the International Geoscience and Geoparks Programme recommendations. This demonstrates the importance of the local communities to do clear transformative steps to shift the world onto a sustainable and resilient path, as mentioned in the resolution approved by the United Nations (A/RES/70/1), that created the Agenda 2030.

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Reference:

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Keywords: UNESCO Global Geoparks (UGGps), International Geoscience and Geoparks Programme (IGGP), SDGs, Local Communities, Engagement

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The Role Of Costa Quebrada Aspiring Geopark In A Geoheritage-Rich Regional Context

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Costa Quebrada aUGGp is located in the central coastal sector of Cantabria, a region of 5,321 km2 extent in northern Spain. The region is made up of Paleozoic to Cenozoic sedimentary rocks. Paleozoic (Ordovician to Permian) rocks are confined to the westernmost part of the region, with some relevant additional outcrops of Carboniferous and Permian rocks related to the E-W bound Cabuérniga fault, in its central part. Triassic to Cretaceous materials are well represented and cover most of the region, especially the coastal lower-lying area and the inner valleys. Cenozoic materials outcrop in some coastal sectors. The Variscan Orogeny affected Paleozoic sequences, which were again affected, as well as Mesozoic-Cenozoic ones, by the Alpine Orogeny. As a result, the region is crossed by a mountain range parallel to the coastline, and crossed by river valleys which run into the Bay of Biscay. There are excellent examples of a wide variety of landforms, coastal, karst or glacial, among others. The variety of rock types and geological structures, as well as geodynamic processes and landforms, result in a rich geodiversity. Some sites, which illustrate different aspects of the regional geology, have been promoted as tourist attractions for over half a century. Examples of direct geological interest are the cable car to Fuente Dé (Picos de Europa) scarp and glacial valley, El Soplao cavern, or Fontibre, a karst outlet of the Híjar River, source of the Ebro, the largest river valley in the Iberian Peninsula. In others the geology represents a background, as in Cabárceno, where a spectacular paleokarst morphology provides the ideal frame for a nearly-natural zoopark. The presence of different geo-resources, including a large number of karst cavities, favoured the settlement of human populations which created some of the most notable Cave Art manifestations in the world (including Altamira), which are listed under a UNESCO World Heritage label. Costa Quebrada aUGGp with its rich and expressive array of coastal landforms, contributes to this series of geoheritage attractions, most of them equipped for public visits and within a short distance between them. This will help to strengthen and enhance geotourism in the region, with offers for all kinds of public. Linking all those sites with other sites of geological interest in neighbouring regions, through a network connected to the Jacobean Way (the Transcantabrian Geodiversity Route), would boost geotourism in the whole northern fringe of Spain.

Keywords: Geodiversity, Geotourism, Cantabria, Northern Spain, Costa Quebrada

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Research on the Impact of Jiuhuashan Geopark Construction on the Upgrading of Tourism Economy

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Geo-tourism is an essential component of tourism. Geopark is an important place to carry out geo-tourism activities, and its construction achievements promote the upgrading and development of regional tourism. Jiuhuashan of Anhui Province is one of the four famous Buddhist mountains in China. Religious tourism dominates tourist market in Jiuhuashan. Analysis on the number of tourists received by Jiuhuashan from 1991 to 2020 showed that the number of tourists to Jiuhuashan increased rapidly, and reached the maximum of 11.31 million tourists in 2019, but it had grown slowly since 2013. Because of geomorphological structure of mountain-hill-basin formed by large fault-block granite and the outstanding model of integration of geo-landscape and culture, Jiuhuashan was approved as a national geopark in 2009 and listed as global geopark in 2019. Then, geo-tourism became an important supplement to the tourism economy of Jiuhuashan. By comparing the number and growth rate of tourists received by Huatai scenic spot (mainly geological and ecological tourism) and Lianhua Yunhai scenic spot (mainly ecotourism, and research and science popularization activities) in the Geopark from 2009 to 2020, the results showed that the proportion of the two scenic spots in the tourism economy of Jiuhuashan increased year by year, Moreover, the growth rate of tourists in the two scenic spots was higher than that of the whole Jiuhuashan, indicating that the construction of Jiuhuashan Geopark can promote the development of Jiuhuashan tourism. In the future, with the construction of Jiuhuashan Global Geopark, the implement of the master plan (revision) of Jiuhuashan Scenic Area and the opening of Jiuhuashan high-speed railway station (Chi-Huang high-speed railway), ecological tourism with geo-tourism as the main part will contribute to the transformation and upgrading of Jiuhuashan as a composite tourist attraction.

Keywords: Geo-tourism, Geopark, Number of tourists, Jiuhuashan

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Reference:

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Construction of science popularization community in Taishan Global Geopark

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In 2006, Taishan was approved as UNESCO Global Geopark, which has various types of geoheritage with high geoscience value. The protection and utilization of geoheritage is important for the construction and the development of global geopark. It has played a positive role in promoting local tourism and local economic development. Through cooperation with local enterprises and communities, the Global Geopark promotes employment and drives the development of related industries. In recent years, Taishan has continuously strengthened cooperation with local community residents, integrated geology with local culture and industry through the study of the relationship between geology and local culture. Taishan UGGp built a geological science popularization community, strengthening science popularization publicity and education, and ensuring the sustainable development of the protection and utilization of geoheritage.

Keywords: Taishan UNESCO Global Geopark, Geoheritage, Sustainable Development, Science Popularization Corresponding author: 707845889@qq.com

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New Technologies in the Service and Promotion of Geological, Natural and Cultural Heritage

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The aim of this presentation is to get the audience acquainted with the Vikos-Aoos UNESCO Global Geopark and its management and promotion with the use of innovative technologies either at the technological or the sociological level. The Vikos-Aoos UNESCO Global Geopark, which covers an area of 1,200 sq.km and is situated in the Region of Epirus in the borders with Albania, occupies the northwestern part of the Pindos mountain range and is characterized by a rough and impressive relief. In its territory includes mount 'Smolikas', the second highest mountain in Greece (2,637 m.), the impressive mount 'Tymfi' (2497 m.) together with the famous gorges of Vikos and Aoos, traversed by their homonymous rivers. As regards anthropogeography, in its territory includes 62 settlements, with a population of approximately 8,000 inhabitants. The Vikos-Aoos Geopark stands out for its special cultural identity, which is reflected on the landscape via the wealth of the traditional settlements, the monuments of all historical periods and the remarkable architectural buildings of pre-industrial era. Thanks to its geographical position, the Management Body of the Vikos-Aoos Geopark ceased the opportunity to use the Interreg Programme 'Greece -Albania 2014-2020' as a funding tool to promote its special characteristics and it created and implemented the project 'THEMA' (New technologies in the service of developing interregional thematic routes). Three thematic routes are promoted through the project 'THEMA': "History, Geology & Nature", "Culture and Gastronomy" and finally "Health & Wellness". The pioneering element of the project lies in the presentation of these cultural-thematic routes through a smart phone application, the 'THEMA app', which combines information to the visitor with the possibility of playing (gamification) through a mobilization and reward mechanism that involves local tourism entrepreneurs. Its aim is to attract new audiences and at the same time to offer quality and advanced services to everyone: tourists, travel agents and generally tourism professionals operating in the Geopark's area.

Keywords: application, technology, heritage, geology, cultural route Corresponding author: gkitsaki@epirussa.gr Reference: Vikos-Aoos UNESCO Global Geopark

Sustainable Development Of Hantangang River UNESCO Global Geopark Through Collaborations Of Geo-Education With Geo-Partners.

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In the same way that the world's four major civilizations were formed along the river, the Hantangang River UNESCO Global Geopark has the characteristic of being along a river that meanders based on huge basalt plateau. As people gathered around the river to live, a society was formed, and various private businesses were created within that society. The businesses can be a restaurant, certain workshop or specialty products store. Some of them were able to remain the so-called 'geobrands'. Also, there are always have been children and teenagers in this society, so students go to nearby schools and learn many things. Hantangang River Geopark can combine them in a variety of ways and provide excellent field trips as outdoor classroom. For example, if students observe the process of making millstones with basalt rock, grind beans with millstone, and make geofoods with ground beans, students who have experienced this process will be able to feel that geoscience and daily life are closely related. Through this, geopark also play a role in connecting children and adults from person to person. As mentioned in UNESCO, by raising awareness with being more in touch with geoheritages in their area, local people can get an enormous sense of pride in their region. conclusion, it is necessary to identify and compare the current status of domestic and overseas geoparks that have already preceded such collaborations, and to graft and implement them accordingly.

Keywords: Hantangang River, Geopark, Geo-Education, Geo-Partners, Sustainable Development

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Ultra-High Resolution Maps And Models As Tools For Managing And Monitoring Environmentally Sensitive Geosites (Estrela Geopark, Portugal)

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The constitution of a geopark represents an innovation for the protection of the geological heritage of a territory, integrated into a scientific network with various strategies that promote knowledge of geosciences, conservation and boost sustainable economic development for its population. This economic development involves, in many scenarios, the promotion and development of diverse tourist activities, which without an adequate monitoring plan can generate impacts on natural areas. This research analyses the potential of ultra-high resolution mapping obtained using unmanned aerial vehicles (UAV) for supporting management plans for three geosites at the Estrela UNESCO Global Geopark: Lagoa Seca, Salgadeiras - Lagoas do Covão da Clareza and Covão do Boi. At each site we used several surveys conducted between 2014 and 2019. Such maps allowed to identify the spatial dynamics of the geosites, quantifying change statistics and producing detailed maps for each geosite at the scale of 1:1400. Besides geological, hydrological and vegetation features, special relevance was given to trampling by visitors, both in rock outcrops, as well as on the sensitive grassland and scrub vegetation formations. In order to identify the areas of greatest impact from trampling, heat maps were produced, showing the density of such anthropogenic activity. The maps and models were used to develop differentiated management plans for each geosite, to be presented to the municipalities to support management practices. In this presentation, we provide an overview of the methods developed in the Estrela Geopark territory and the set of recommendations we have developed for geosite monitoring and management plans based on UAV mapping.

Reference:

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Keywords: Monitoring, Trampling, Geosite, UAV, Estrela Geopark

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Developing the San'in Kaigan Geopark Trail and the Promotion of Geotourism during COVID-19 Pandemic

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The establishing a long trail route, 230km long east-west route connecting Tottori City, Tottori Prefecture and Kyotango City, Kyoto Prefecture was completed in February 2020.Even during the time of sharp drop down of number of tourist and a severe decline of tourism industry because of COVID-19 pandemic, the trail walk activity was safely conducted in 2020 using the newly completed trail, under the title of "Now is the time to return to nature! To the San'in Kaigan Geopark Trail!", with regional campaigns to revitalize the local economy, maintain and secure employment and consumption, maintain the health of local residents, promote the use of national parks, and foster awareness of environmental protection.In implementing the activity, a system was established so that visitor centers, geoguides, outdoor activity businesses, retailers, and restaurants can cooperate to conserve geosites and provide services in order to strengthen geotourism after COVID-19 pandemic.

Keywords: San'in Kaigan UGGp, Tourism, Rrotection and conservation Corresponding author: Yuuki_Fujihara@pref.hyogo.lg.jp Reference: None

Geosite Waluran, Hanjeli Tourism Village With The Concept Of Sustainable Food Security

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Pioneer of the Hanjeli Tourism Village2 Waluran is one of 8 sub-districts in Sukabumi Regency which is included in the CPUGG (Ciletuh Pelabuhan Ratu Unesco Global Geopark) area. Currently, Waluran village is increasingly recognized by showing its existence as a geosite that has the characteristic of being an alternative food center, namely Hanjeli commodity. Hanjeli (Coix lacryma – Jobi L.) is a type of tropical grain plant from the rice tribe or Poaceae originating from eastern Indonesia and Malaya which is spread to various parts of the world. At first, Hanjeli was not well-known and was not appreciated by the public because of its position as a local food ingredient which was marginalized by rice, corn and cassava. It was Asep who succeeded in re-popularizing this increasingly forgotten food crop, this 32-year-old man even managed to make Hanjeli the main attraction of the tourist village that he developed with the residents. For Asep, Hanjeli is an alternative food resource. Hanjeli can not only be processed like rice as a daily staple or as a mixture of rice, Hanjeli grains can also be developed into various types of snacks, can be fermented into tape, rengginang, and chips. While the flour is made into Hanjeli porridge and lunkhead or made into flour for fast food cereals such as Oatmeal. Because of its hard dry grains, Hanjeli has also long been known as a raw material for crafts such as beads, necklaces, bracelets, prayer beads and so on. The food security movement pioneered by Asep Hidayat or better known as Abah Asep has succeeded in changing his village to be more prosperous, the residents' economy is more independent, especially in food security, the land is greener, fields and yards are overgrown with Hanjeli plants and the narrow land around the house is overgrown vegetables. Currently the independent Waluran Village has been developed into a tourist destination known as the Hanjeli Tourism Village, in this tourist village, local, regional and foreign visitors can enjoy Hanjeli rice dishes and various processed food products made from Hanjeli such as tape, dodol. visitors can also learn about Hanjeli cultivation and how to process it, pick vegetables and eat processed fish, refresh the mind by enjoying the hamlet landscape which is included in the Geopark zone. Hanjeli Tourism Village is the only Tourist Village that emphasizes the concept of food security, not just an ordinary culinary tourism destination. Corresponding author: Dana Budiman, +62813 1615 8009 Email: danabdmn@gmail.com.

Keywords: Hanjeli, Tourist Village, Food Security, local food, Ciletuh Palabuhanratu UGG

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GEODIVERSITY AND GEOTOURISM POTENTIAL FOR SUSTAINABLE DEVELOPMENT IN BANDUNG BASIN

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The research aims to identify and map geodiversity as an excellent potential for geotourism attraction, also classify them into geotourism destination. The research used mixed method with descriptive analysis, with data collection through desk study, field observation and analysis of geodiversity and geotourism potential. The main result identified 43 geo-diversity in the upper Citarum River with geoheritage and potential geotourism. The research classified these geosites into three geotourism destination, which are: primary geo-tourism destination, secondary and supporting tourism destination. The Citarum river is one of the main rivers in West Java, which has become a vital source of water and economic activities for West Java community, has geodiversity with a geoheritage potential that is scattered throughout the region. Environmental degradation has occurred in the area, protection of geoheritage is important for the geo-tourism. Therefore, conservation of geoheritage requires good planning and policies.

Keywords: geodiversity, geoheritage, geotourism, Bandung, Sustainable development

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Sustainable Development on Night Tourist Economy, Case of Qinling Zhongnanshan UNESCO Global Geopark

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Being adjacent to Xi'an city which is a popular tourist destination in China, Qinling Zhongnanshan Geopark boasts many sites for sightseeing at night, especially those related to local cultures. As a result, the geopark is a mosaic area not only of abundant geological entities with special scientific importance, ecological and tourism resources during the day but also of attractive sightseeing in the night.By introduce the night tourism programmes in the geopark, this paper describes the present situation of the night tourism development and intends to start further discussion and study on this issue in order to promote the sustainable use of night tourist economy. The aim of development of night tourism will not only increase income of the geopark, but also promote global geopark and empower local social and economic sustainable development.

Keywords: Night Tourist Economy

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Data of customer atisfaction survey by Qinling Zhongnanshan Global Geopark Management Office

Coastal cleaning in Reykjanes UNESCO Global Geopark, Iceland: Mapping of cleaned areas for monitoring and motivation.

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All over the world the ocean wave has brought an enormous amount of objects ashore, and which are scattered on our shores. These are marine debris like beverage containers, disposable packaging, plastics, fishnets and other mysterious objects which will be blown by the wind further inland. If nothing is done, the shores and our natural environment will be filled with debris from the sea. Marine debris filled shores is harmful to all marine life and clearing the coastline is important to ensure sustainability in the marine environment. Iceland is no exception. A high energy and rocky coastline surrounds Reykjanes Geopark for the most part and therefore difficult to navigate and clean, but that does not stop us from clearing the coastline. This year, a project was launched which set itself the lofty goal of cleaning the coastline and getting companies, schools, and institutions to take on coastal areas to clean up. Reykjanes Geopark and the Blue Army started a collaboration and set the goal of making the geopark coastline the cleanest in Iceland. The Blue Army is a local NGO, an environmental protection organization that focuses on the fight against plastic pollution in the sea through clean-up work, encouragement and raising awareness. The clean-up partnership is not only about cleaning beaches but also about documenting cleaning projects and keep records of areas and amounts of marine debris collected. That way, we can monitor the state of the coastline which will help us plan future clean-ups. Additionally, this will also help us build momentum within the local community and the government to take this matter seriously. Total length of the coastline that has been cleaned in 2021 is about 22 km. The total weight of the marine debris was about 15 metric tons. We aim to maintain this good and important co-operation project and make the coastline of Reykjanes Geopark the cleanest in the country. Cleaning up the rubbish from our shores only solves the problem in part because the ocean is still full of debris that will be washed ashore in the future with the associated environmental impact.

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Keywords: Coastal Cleanup, Reykjanes, mapping, Environment, Marine debris

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Geoparks, Sustainable Tourism and Sustainable Local Development

Danyang geopark, Korea.

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The Danyang area is located in the middle part of the Korean peninsula and is characterized by the sutured zone formed by the collision between the North Korean land and South Korean land. In 2017, Danyang county hosted over the 10 million visitors, After Covid 19, Number of visitors decreased, but tourism income increased. Danyang county us well known for its famous tourist attractions including the Eight Scenic Views of Danyang, cultural heritage, archeological heritage, ecological heritage and national park, etc. In additional, the Danyang area has many interesting geological heritage related to the collisions such as multi-layered thrust fault, overturned and/or vertical strata, superimposed old strata overlain by younger formations, epoch level unconformities and high ridgeline of metamorphic belts, etc. The Cambro-Ordovician limestones contain important fossils and show typical beautiful karst landscape including caves and dolines which add to the geodiversity of this area. The Danyang county applied for a Korea Nationa Geopark on 2020. It is expected that Danyang county will make one of the world's popular tourist detinations(Geopark). As the Danyang area is also located in riparian zone of the Namhangang(Danyanggang) River, where total maximum daily loads is applied by national law, local residents are facing many behavior restrictions in their way of living and sometimes experience economic disadvantages. To compensate the economic losses of the local residents near the riparian zones, Danyang geopark team now planning to construct the area as geo-trails and geo-infrastructures aiming both conservation and sustainable development. And The River Commission accepted multi million US dollars funding for the geopark project. We think that the concept of geopark is very persuasive and acceptable to the ordinary people, both either outside and inside the geopark territory. Therefore, we expect our geopark will be on of the successful model in Korea.

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Geoparks, Sustainable Tourism and Sustainable Local Development

"LA VUELTA" IS COMING TO THE GEOPARK. WHAT A GREAT OPPORTUNITY TO PROMOTE IT!

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In 2021 "La Vuelta", one of the most important stage cycling races on the world calendar, decided that one of its stage finishes would reach the top of Villuercas Peak. (1600 masl.) the highest point in the Geopark's heart. Television enables it to be followed by thousands of cycling lovers around Spain, but also Europe and Latin America. Among its stages, the arrivals at the top of a mountain are the ones that attract the most followers, constituting a television show due to the landscapes shown, the excitement of the race, and the accumulation of many visitors on the road edges. The media expressed admiration for the scenery and the harshness of the stage. It could not be otherwise since the last fifteen kilometers of ascent, a military track assigned for use in the geopark, had been adapted as a mountain road and geological itinerary of the geopark just the previous year. The geopark management staff observed the question between certain prevention due to the impact of public and mobile infrastructures and the opportunity for unprecedented tourism promotion. Consequently, informative and promotional actions were devised that took into account the geopark conservation principles and objectives. These actions include:-Intensive work of information and awareness on social networks; (#PicoVilluercas was trending topic this day!!) - Awareness campaigns with some local and regional cycling clubs; - Award for participants in awareness actions consisting of cycling jerseys with a special geopark design; - Information to the TV commentators to talk about the geopark during the broadcast and, finally, on-site monitoring on the day of the stage.-Our geopark mascot "Geopaca" was there taking photos with the people and it was a gift to the famous person who arrived this day. Among the results we can count the following: - Negative impacts on Pico Villuercas and the geopark facilities (panels and signage) were zero. - The public withdrew in order and took their own waste with no subsequent cleaning campaign was necessary. - The impact on tourism has been considerable, with a great increase in the number of visitors. In conclusion, a sportive event was a good experience and a great opportunity to promote the Geopark, with big success, to the rest of the world by TV.

Keywords: sustainable, tourism, cycling, promotion, sports

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Video about "La Vuelta" in Villuercas - Ibores - Jara UGGpLinks to Social Media