# UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION UNESCO Global Geoparks Council

1st Session

Torquay, United Kingdom of Great Britain and Northern Ireland, 24th to 25th September 2016

#### **FINAL REPORT**

- 1. The 1<sup>st</sup> session of the UNESCO Global Geoparks Council (UGGpC) of the International Geosciences and Geoparks Programme (IGGP) was held in Torquay, United Kingdom of Great Britain and Northern Ireland from the 24th to the 25<sup>th</sup> of September 2016.
- 2. A total of 14 participants including 11 of the 12 Members of the UGGpC as nominated by the Director-General of UNESCO in August 2016 attended this UGGpC session: Asfawossen Asrat (Ethiopia), Jin Xiaochi (China), Guy Martini (France), Kirstin Lemon (Ireland), Melanie Border (United Kingdom of Great Britain and Northern Ireland), Ibrahim Komoo (Malaysia), Kristin Ragnes (Norway), Helga Chulepin (Uruguay), Patricio Melo (Brazil), Mahito Watanabe (Japan) and Maurizio Burlando (Italy). Other members present were Marko Komac (International Union of Geological Sciences-IUGS), Nickolas Zouros (Global Geoparks Network-GGN President), Patrick McKeever (UNESCO).
- 3. Apologies were received from: Alireza Amrikazemi (Islamic Republic of Iran) as his visa to the UK was refused by the UK authorities, Tim Badman (International Union for Conservation of Nature IUCN).
- 4. The following observers were present: Denise Gorfinkiel, UNESCO Office Montevideo, Felix Toteu, UNESCO Office Nairobi, Margarete Patzak UNESCO HQ (SC/EES/EGR).

# I. Welcome by the UNESCO Global Geoparks Secretariat and adoption of the agenda

- 5. Patrick McKeever, the Secretary of the International Geoscience and Geoparks Programme, officially opened the meeting. He welcomed all members of the UGGpC and Observers, and thanked the English Riviera UNESCO Global Geopark for preparing the session. He recalled the functions and duties of both the UGGp Council and UGGp Bureau according to the Statutes and Operational Guidelines of the UNESCO Global Geoparks.
- 6. The UGGpC adopted the agenda and timetable of its first session without modification.
- 7. Nickolas Zouros, President of the GGN, highlighted the importance of the quality of experience of the UGGpC members.

# II. Election of the UNESCO Global Geoparks Bureau: Chairperson, Vice-chairperson and Rapporteur

8. The following were elected by acclamation.

Chairperson: Guy Martini

Vice-chairperson: Ibrahim Komoo

Rapporteur: Kirstin Lemon

# III. Adoption of the Rules of Procedure for the Council and Bureau

9. There was a presentation of the Rules of Procedure with positive comments received on the first draft. The voting procedure was outlined with all decisions being made using a majority vote. In the case of equal votes, then the Chairperson will have the casting vote.

#### IV. Fundraising

#### a) State of contribution from GGN

10. Nickolas Zouros explained that the GGN Association contributes 1000 USD from each UNESCO Global Geopark to UNESCO. The GGN Association has already donated 95 400 USD to UNESCO, with the rest of the money to be transferred in October, 2016 making up 120 000 USD. Problems arise as banking fees can further reduce the money received, payments arrive late, and in many cases it is difficult to identify the source of the payment. This item will be discussed during the GGN General Assembly. Certain procedures for payment will be fixed, for example all payments will be made before June in any given year. Nickolas Zouros thanked the Geopark National Fora / Committees for their efforts in the coordination of this activity and also thanked the Japan Geopark Committee for making one single payment on behalf of the Japanese UNESCO Global Geoparks.

- 11. A clear guideline should be issued to the UNESCO Global Geoparks that explicitly mentions that the Geoparks must carry bank fees.
- 12. All UNESCO Global Geoparks have paid for 2015 and are in good standing. However, there are still many that need to pay their fees for 2016.
- 13. Patrick McKeever explained that this funding is used for advisory missions, consultants in UNESCO to develop the website, to allow UNESCO colleagues to travel to the conference, and will be used in the future to deliver workshops as well as further advisory missions as and when required.

# b) Future plans

- 14. Patrick McKeever explained that it is important for the Member States that this system functions as it is necessary to develop workshops such as the one planned in the Islamic Republic of Iran in 2017 and for advisory missions to take place.
- 15. There is a high demand from Central and South America for assistance with a proposal for a workshop to focus on Peru, Colombia, Ecuador, and Argentina. This is a direct result of the successful workshop in Mexico in May 2016. The next workshop is planned to be organized in May 2017 in Peru in collaboration with the UNESCO Office in Uruguay, with Patricio Melo (Brazil) and Cesar Goso (Grutas del Palacio, Uruguay) who should be involved in the preparation.
- 16. A workshop is planned for Qeshm Island in the Islamic Republic of Iran to serve the wider Middle East region as well as Central Asian countries.
- 17. Developing Geoparks in Africa should be a priority. An advisory mission took place in 2016 in Kenya and since 2012 a permanent cooperation has been established with Ngorongoro-Lengai aspiring Geopark in Tanzania. To further continue these developments, another advisory mission should be organized in these two African countries, and explore the possibility in other African countries.
- 18. The Vietnamese National Commission has proposed a project in a karst area and is looking for an expert mission to increase support.
- 19. Due to an increased interest in UNESCO Global Geoparks in the United States of America, there is the potential need for advisory missions there also.
- 20. Helga Chulepin proposed a good practice guide for those carrying out evaluation missions based on the good experience and findings of previous evaluators. Nickolas Zouros stressed

that this should be based on experiences of the wider network of the GGN and not just from the UGGpC members.

# V. Capacity building activities: workshops, advisory missions

21. This section was covered under points 14 to 20.

# VI. UNESCO Global Geoparks new applications

- 22. As per Section 5.5 of the UNESCO Global Geopark Operational Guidelines, the Council will recommend to accept an application, reject an application or defer it for a maximum of two years to allow for improvements to be made to the quality of the application. In case of deferral, there is no need to repeat the field evaluation mission during this time.
- 23. The members of the UGGpC examined at its 1<sup>st</sup> meeting 18 candidates for new UNESCO Global Geoparks. This included 2 requests for extension from existing UNESCO Global Geoparks that are assessed as new candidates in accordance with the UNESCO guidelines.
- 24. **Arxan** (China): The area is located in the jurisdiction of Xing'an League, Inner Mongolia Autonomous Region, the People's Republic of China, with geographical coordinates 119° 29' 24.33" 120° 43' 39.66" E; 46° 58' 57.07" 47° 30' 42.99" N. The total area is 3653,21 km². Arxan is a mid-low mountain region situated in the southwestern part of the middle section of the Daxing'anling range. Its major topographic features are mid-low hills formed from tectonic denudation, as well as basalt platforms and alluvial valley plains. The elevation ranges from 820 to 1750 meters, with an average of 1100 meters. The area is located at the point where the eastern Tianshan-Xing'an fold zone compounds with the Daxing'anling giant uplift belt of the Cathaysian tectonic system. It is a topographic boundary zone of China and a crust transition zone. As a volcanic-tectonic unit, it is part of the Datong-Daxing'anling Cenozoic volcanic activity zone. The area has abundant geoheritage of significant national and global value, including geomorphological landforms (volcanic landforms, granite landforms, fluvial landforms), water landscapes (natural springs, volcanogenic lakes, scenic river reaches), etc. The great variety of volcanic landforms, volcanogenic lakes and natural spring groups is highlight attraction.
- 25. Two positive reviews of the internationally significant geological heritage were received from the International Union of Geological Sciences (IUGS).
- 26. Since 2006 the territory has been working as a national Geopark, with a well-developed structure and management. However, the territory is divided into different geo-regions, and UGGps should be operating as a single entity under one governance. Maurizio Burlando who has visited the territory explained that it works as a unified area. Questions were also raised regarding animal welfare issues at the Deer Breeding Base something that will be addressed in the GGN guidelines, and on the geoconservation problems at sites such as the Turtleback Lavas.
- 27. A number of recommendations were provided for Arxan:
  - 1. The area should be managed as a single, unified territory and the use of the term geo-area should be avoided.
  - 2. Improve the conservation, and protection measures should be employed at all sensitive and vulnerable sites.
  - 3. Improve the visibility of the Geopark through the implementation of interpretation activities, (including easy to understand geological heritage interpretation) improved visibility of staff and guides, and the development of a brand for regional services.

- 4. Improve the impact of sustainable development in the territory by maintaining the high level of collaboration and partnership on a formal level with local stakeholders and local communities and develop a detailed socio-economic profile of visitors.
- 5. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 6. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with the UNESCO principles.
- 28. Following the review of the Arxan (China) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.
- 29. Black Country (United Kingdom of Great Britain and Northern Ireland): The area is located in the centre of England (UK) with geographical coordinates 52.516857° N; 2.079533° W with a total area of 256 km<sup>2</sup>. Its easternmost point is a kilometre from the centre of the city of Birmingham and its boundary is defined by the outer edge of the four urban metropolitan boroughs of Dudley, Sandwell, Walsall and Wolverhampton. This area, currently home to 1.1 million people living in more than 200 communities, is a patchwork of dense urban settlements spread across a series of low hills and river valleys. The most competent hard sedimentary and igneous rocks produce the highest land. Pleistocene and post-Pleistocene drainage structures relate to the melting of ice fronts and the isostatic rebound of the landmass subsequently formed deeply incised river channels. For its size, the Black Country has some of the most diverse geology anywhere in the world. With very few exceptions all of the geological exposures are the remnants of mining and engineering endeavors of the Industrial Revolution and contain some of the most important geological evidence in the world for certain aspects of Earth Science. The geology exposed and the wider geodiversity and industrial heritage features across the Black Country link together to provide an enthralling geological narrative that is testimony to changing environments through some 430 million years of geological time. Evidence of the deeper geology is represented in the historic geological collections of the Black Country, and in every well-appointed natural history collection in the world. This material was collected during the days of mining or from borehole cores taken to explore the deeper geology.
- 30. Two positive reviews of the internationally significant geological heritage were received from the IUGS.
- 31. The Black Country appears to have a number of shortcomings that were identified in the evaluation reports:
  - Despite having 45 geosites of various kinds in the proposed Black Country Global Geopark, only 7 have identification panels with the name "Black Country Geopark", the rest are with old interpretation/explanation panels of different sources. Other signs and/or indications that can remind visitors of being in a Geopark are barely seen.
  - 2. The managing body is not in line with the requirement of a UNESCO Global Geopark. In the Operational Guidelines for UNESCO Global Geoparks the related criteria for UNESCO Global Geoparks is clearly given (No. iii of Article 3): "UNESCO Global Geoparks should be areas with a management body having legal existence recognized under national legislation. The management bodies should be appropriately equipped to adequately address the area of the UNESCO Global Geopark in its entirety".
  - 3. The proposed area does not have a sufficient management team and appropriate budget.

- 4. There is a significant weakness in incorporating other organizations, many of whom carry out exceptional work in the area and could play a key part in its strategic development.
- 5. There has been no significant progress in sustainable tourism development since the project began.
- 32. Despite the number of shortcomings identified, the internationally important geological heritage, the enthusiasm and dedication of key members of staff and the exceptional work that has been carried out by partners was all highlighted. It was pointed out that a negative outcome would lead to the cessation of all work on the project despite all of the above mentioned positives that have been achieved to date. It was recognized that whilst some basics are missing, a huge amount of work has already taken place and should be emphasized.
- 33. A number of recommendations were provided for Black Country:
  - 1. Ensure that the managing body meets the requirements of Operational Guidelines for UNESCO Global Geoparks.
  - 2. Unify and coordinate the many partners that are already active and integrate all of the geosites under one single banner as opposed to the plethora of independent organizations that currently exists.
  - 3. Ensure that financial stability is ensured, as a corresponding budget is fundamental for maintaining and managing a UNESCO Global Geopark.
  - 4. Significantly increase the visibility of the Geopark through interpretative signage, and a better developed website.
  - 5. Improve the impact of sustainable development in the territory by developing collaborations and partnerships with the commercial and industrial sector.
  - 6. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
  - 7. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 34. Following the review of the Black Country (United Kingdom of Great Britain and Northern Ireland) application dossier and evaluation report, the UGGpC decided that the candidate does not yet fulfil the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **defer this candidature for a maximum of** two years to allow the above recommendations to be implemented.
- 35. Causses du Quercy (France): The territory covers 1855 km² and is located in the southwest quarter of France, at the northern end of the Occitanie / Pyrenees-Méditerranée region, 100 km from Toulouse (fourth largest city in France by population). Its geographical location is Lat: 1.686415° E; Long: 44.571860° N. It is essentially a rural area covering the central third of the Lot County, between the Dordogne River in the north and the Tarn-et-Garonne County in the south. Its administrative contours are those of the municipalities that ratified the Charter of the Causses du Quercy Regional Nature Park following those of the limestone plateau of the Quercy, called Causses, whose average elevation is 300 m. This plateau stands out from the low plains of the Aquitaine Basin bordering them to the south and west (average 135 m above sea level) and from the mountainous area of the Massif Central situated to the north and east (average 700 m above sea level, culminating at 1885 m). The Causse is a vast plateau formed by Jurassic carbonate rocks deposited during the opening of the Atlantic Ocean, and is the result of an intense karstic polyphaser activity that started 70 million years ago. As the result of unique geological circumstances, the Quercy "phosphatières" form an exceptional fossiliferous recording. In fact, those ancient phosphorite caves were carved during a first karstic period, and then sealed by phosphate-rich clay containing thousands of fossils in perfect conditions of preservation. The Quercy palaeokarst

is the longest chronological sequence currently known in a continental domain worldwide and enabled the recording of the climatic, environmental and conditions for the evolution of life (European reference for the upper Eocene and Oligocene epochs). Since 3.5 Ma, resumed karstic activity allowed for the development of typical karst landforms such as swallow holes, resurgences, caves, chasms, and dolines.

- 36. Three positive reviews of the internationally significant geological heritage were received from the IUGS.
- 37. The proposed Geopark boundary is the same as the Regional Nature Park des Causses du Quercy, and the latter is very active. However, there is often confusion as to the difference between the Regional Nature Park and the Geopark, and often there is no reference to the Geopark at all. The area has a very good education programme and has strong support from the Biosphere Reserve also in the park, and provides for a strong connection between people and the landscape. There is however a lack of interpretation at the geological sites.
- 38. A number of recommendations were provided for Causses du Quercy:
  - 1. Increase the visibility of the Geopark all over the territory, including the Geopark logo in the panels and in road signs and create a clear visibility and identity from the Regional Nature Park.
  - 2. Develop meeting points or centres to give an overview to visitors for an orientation within the territory and for geotourism development.
  - 3. Continue to work on connecting all points of interest through a common Geopark language and in different languages, French and English as minimum.
  - 4. Organize and unify Geopark tourist leaflets and brochures by having a holistic brand that brings together the core heritage elements of the Geopark territory, so that tourists clearly perceive the geotouristic products offered.
  - 5. Develop scientific investigations on the geological heritage used as identity in combination with the internationally significant heritage.
  - 6. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
  - 7. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 39. Following the review of the Causses du Quercy (France) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.
- 40. **Cheongsong** (Republic of Korea): Enclosed by a mountain range originating from a part of Democratic People's Republic of Korea near China, Cheongsong is located in the central eastern area of the Republic of Korea at 129.05712° E, 36.43627° N. The administrative district is located in Gyeongsangbuk-do and is comprised of 8 small towns. The administrative boundary of the region also marks the boundary of the proposed UNESCO Global Geopark. Its surface is 845,71 km², which comprises 652 km² of forest lands, 56 km² of rice paddies, 29 km² of fields, and 109 km² of orchards. Officially, Cheongsong-gun is divided into eight administrative districts, each of which has its own geological and other attractions. The Republic of Korea is situated on the eastern margin of the Eurasian Plate, below which the Pacific Plate is being subducted, with the Japanese archipelago located on the subduction boundary. Aspiring Cheongsong UNESCO Global Geopark located in the southeastern part of the Korean peninsula belongs to the Kyongsang Basin, the biggest sedimentary basin in the Republic of Korea. The area presents igneous, metamorphic and sedimentary rocks, formed from the Precambrian period through the Cenozoic period. From the bottom, the geological

layers of Cheongsong comprise metamorphic rock in the Precambrian period; plutonic rock in the Triassic period; sedimentary and volcanic rocks in the Cretaceous period; intrusive, plutonic, and other rocks in the Tertiary period; and alluvial layers in the Quaternary period. Distinctive features of interconnection like interaction between the rhyolitic volcanic activity and water which formed the Cheongsong spherulitic rhyolite and the Dalgi Mineral Spring Site respectively, two representative geosites of the area.

- 41. Three positive reviews of the internationally significant geological heritage were received from the IUGS.
- 42. A number of highlights were given including the internationally important 'flower-stones' and the good involvement of local people and local governor, including in the promotion of local products. The area has secured 3 million USD to develop the territory further but there is a need for further improvement especially in aspects of visibility and linkages of various aspects of the geology to nature and culture within the Geopark that could enhance the general knowledge of the public and the Geopark visitors.
- 43. A number of recommendations were provided for Cheongsong:
  - 1. Visibility of the aspiring Cheongsong Geopark should be improved through the development of its own Information Centre, on route between the airport and the Geopark and increased usage of Geopark branding at all sites.
  - Accurate and easy to understand geological information should be used at all sites and links between sites as well as with other aspects of heritage to geological heritage should be made clear. (e.g. the relationship between landslide and the exposure of dinosaur footprints).
  - 3. Better use of sites that demonstrate Earth processes such as landslides should be made so the public can learn about the dynamic nature of the environments as well as attracting a greater research interest.
  - 4. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
  - 5. Provide information on Geopark panels in other languages in addition to Korean.
  - 6. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 44. Following the review of the Cheongsong (Republic of Korea) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.
- 45. **Comarca Minera, Hidalgo** (Mexico): The name of the area comes from one of the ten geographical regions in the State of Hidalgo, named Comarca Minera. Its geographical location is 98° 21′ 98° 51′ W; 19° 52′ 20° 27′ N, and the surface area is 1910 km². The region is characterized by world-famous argentiferous ore deposits that have been exploited since the 15th century, modifying the natural environment and creating a geological, cultural and social legacy in the region. The territory of the area is located in the centre of Mexico, in the State of Hidalgo. The area covers 9 of the 84 municipalities that define the State, representing the 9% of its total surface. Some 97% of the area belongs to the physiographic province named Eje Neovolcanico Transmexicano, characterized by the presence of volcanic terrains and landforms whose ages oscillate between Eocene and Pleistocene. The remaining 3% is located within the Sierra Madre Oriental physiographic province, which shows terrigenous and carbonated sequences from Cretaceous. The zone presents relief with altitudes in the range of 1300 3200 metres above sea level; it is fundamentally composed of hills, plateaus, canyons and plains. The oldest rocks of the Comarca Minera's date from the Albian, when a

transgressive event occurred and a carbonate platform developed. In the Turonian a clastic platform environment formed and evolved to deeper conditions during the Santonian. By the Cretaceous-Palaeogene boundary, the rocks were folded as a consequence of the Laramidic Orogeny, caused by the convergence between the Farallon and North American plates. During the Oligocene-Late Miocene, the subduction of the Cocos Plate originated calc-alkaline volcanism, producing an andesitic to rhyolitic volcanic sequence, with dacites and trachytes in the Pliocene-Pleistocene. The Real del Monte word-class silver deposit occurs in the Comarca Minera. It consists of a low-sulfide epithermal deposit that was mined for over more than 400 years.

- 46. Two positive reviews of the internationally significant geological heritage were received from the IUGS.
- 47. Comarca Minera, Hidalgo aspiring Geopark has successfully identified the characteristics that define a true global Geopark and its staff have already implemented some of them, especially those related with the management system and the commitment of stakeholders and local inhabitants with the Geopark objectives. It seems all of them consider a Geopark as a real tool for the development of Hidalgo, which would be focused in the future both in the knowledge and in the tourism. The territory has strong support of authorities and institutions that guarantee the future development of the project, including human resources and facilities. There is also evidence of strong collaboration with those responsible for protected natural areas including the Barranca de Metztitlán Biosphere Reserve with which there is a partial overlap. Visibility is lacking and is limited to certain sites but the success in working with local communities and schools helps to address this.
- 48. A number of recommendations were provided for Comarca Minera, Hidalgo:
  - 1. It is necessary to increase the visibility of the Geopark for visitors especially as this is a new country for Geoparks. This includes better visibility on main roads, panels at each site for tourism and / or education purposes, trails signposted from roads, and information on the Geopark in the existing museums and attractions. It is essential for all Geopark signage to be homogenous throughout.
  - 2. The headquarters planned in the "City of Knowledge and Culture" should be integrated, if possible, to include information from the Geopark and act as an educational and marketing tool for the entire area including acting as a key distribution point for promotional material.
  - 3. Training courses should be delivered in the *ejidos* in order to guarantee local participation in the conservation of Geopark sites through knowledge and understanding.
  - 4. Educational programmes should be extended to other schools in conjunction with the relevant Government body, and include other topics in addition to Earth science.
  - 5. Formal partnership must be developed with the Museum and the natural protected areas in the Geopark to ensure consistent visibility and cooperation. Formal partnerships and Geopark branding needs to be developed with local partners (hotels, restaurant, guides) as well as for local products using set criteria and guidelines.
  - 6. Tourism marketing should be better implemented as there are good opportunities to strengthen and promote further Geopark related, food-based tourism and initiatives; further activity in this area is encouraged.
  - 7. Links between the indigenous people and the Geopark should be promoted and local identity should be preserved.
  - 8. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.

- 9. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 49. Following the review of the Comarca Minera, Hidalgo (Mexico) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGG criteria to become a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.
- 50. Conca de Tremp-Montsec (Spain): The proposed area covers 2050 km<sup>2</sup>, representing 17% of the province of Lleida and 6% of Catalonia, and is located between 41° 52' and 42° 33' latitude north and between 0° 40' and 1° 19' longitude east, at the north-east part of Spain, relatively close to the southern borders of France and Andorra. The area consists of geographical units that are very clearly separated by many valleys. The hydrographic basin that drains water from north to south shows three main rivers, Noguera Ribagorcana, Noguera Pallaresa and Segre (from west to east), crossing the ranges parallel to the axial Pyrenees orientated from east to west and forming various valleys, characterized by very rich geodiversity. The candidate region is characterized by a set of mountain ranges and basins oriented East-West, determined by the arrangement of various overthrust nappes making up the southern slope of the Central Pyrenees. It covers the geological record of the past 550 million years. In the north, in the axial zone, is the antiform pileup of overthrust nappes associated with the Alpine orogeny. The materials outcropping in this zone, in the Vall Fosca, are largely from the Palaeozoic and have been strongly deformed by the effects of the Hercynian orogeny and related to mineral deposits of interest. To the south of the axial zone, the thrust sheets basically formed by Mesozoic and Palaeogene rocks can be identified. Contemporary with the establishment of these sheets piggyback basin-type intermountain basins originated (Tremp basin, Ager basin). In the Upper Cretaceous rocks, the remains of the last dinosaurs in Europe have been preserved, constituting the distinctive feature of the paleontological heritage of the proposed Geopark. The natural heritage of the southern slopes of the Pyrenees is very rich, which means this area of Spain is internationally recognized as a natural laboratory for sedimentology, tectonics, external geodynamics, palaeontology, ore deposits and edaphology. The area of the proposed region includes a very broad representation of the evolution of life on Earth and includes sites from the Permian to the Palaeogene: almost 250 million years represented by fossils of vertebrates, invertebrates and plants.
- 51. Two positive reviews of the internationally significant geological heritage were received from the IUGS.
- 52. The self-evaluation document was thought to be relatively conservative in its allocation of points, erring on the side of caution particularly when it came to questions on activities and services provided. If the Geopark did not do this directly they would mark themselves down when in fact partner organizations were doing so. This was particularly the case in geotourism activities where the aspiring Geopark management association acts very much as a catalyst for using the brand. The management structure is solid and there is evidence for sufficient funding and a sustainable development strategy. The territory has a rich cultural and built heritage, especially hill top castles and medieval defences but these were not visited on the evaluation mission. A major concern was the proximity of this territory to another nearby UNESCO Global Geoparks as this was not clear during the mission or from the application. The UGGpC discussed in detail the concerns regarding the similarity of the geological heritage of this territory in comparison to the geological heritage of the existing two UGGp's in the same region. A comparative analysis between the two Geoparks is necessary prior to the decision for endorsement (see recommendation below).
- 53. A number of recommendations were provided for Conca de Tremp-Montsec:

- A full and comparative study is needed between the applicant territory and the adjacent Sobrarbe UNESCO Global Geopark to ascertain if there is a similar geological heritage.
- 2. Visibility of the aspiring Geopark should be improved by better use of the Geopark logo and consistent branding throughout.
- 3. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 4. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 54. Following the review of Conca de Tremp-Montsec (Spain) application dossier and evaluation report, the UGGpC decided that the candidate does not yet fulfil the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **defer this candidate as a UNESCO Global Geopark** for up to two years pending the results of the study requested in recommendation 1.
- 55. Iron Mountains (Czechia): The area is located in the central part of Czechia. It occupies the major part of the Iron Mountains and their surroundings and its geographical coordinates are N 49.949507°, E 15.796201°. The aspiring Iron Mountains region covers an area of 777 km² and its border is 190 km long. The main geological phenomena are the great variety of geological environments and the presence of almost all stratigraphic units - from the Proterozoic through to the Palaeogene. The area is located along the southern limit of the Pardubice Region some 100 km east of Prague. The Iron Mountains are the key to the geological history of central Europe. Proterozoic gneisses and volcano-sedimentary complexes (subaerial and submarine volcanism) are present. Some of the earliest life forms have been found here in the form of stromatolites. The Palaeozoic comprises Cambrian siltstones, Ordovician quartzites, Silurian shales, Devonian limestones and Carboniferous sediments. Rare fossils include trilobite and graptolite fauna. The third oldest ichnofossil of Zoophycos type in the world has been reported. The Mesozoic (Upper Cretaceous) sedimentary cover has a unique development, with abundant fauna and flora. Sandstones and spiculitic marlstones provide excellent conditions for groundwater accumulation. Palaeogene rocks are represented by basalt enclosing olivine-rich xenoliths. The geological story of the area is completed by Quaternary loess and sandy gravel.
- 56. Two positive reviews of the internationally significant geological heritage were received from the IUGS.
- 57. The area has some of the most important geology in Central Europe. The evaluators were impressed by the knowledge and commitment of key people within the Geopark and by the obvious level of support shown by stakeholders. The Geopark however appears to be at an interim stage of developing the necessary management, financial and geotourism strategies and achievements needed to fulfill the criteria of a UNESCO Global Geopark. The territory has significant shortcomings some of which have been listed below:
  - The aspiring Geopark was established by and is coordinated by a private company.
     In the UNESCO Global Geopark statutes and guidelines it is stipulated that the UNESCO logo shall not be used in association with commercial purposes, which would clearly be the case here.
  - 2. The self-evaluation form did not identify any international geological heritage, despite this being a requirement. However, the report from the IUGS identified that this area is indeed one of international geological significance.
  - 3. In one visitor attraction centre fossils were available for sale. Assurance has since been given that this has stopped but as a *de facto* Geopark this should not have been the case at all.

- 4. There are few links between the Geopark and the geology of the area and many of the key aspects are aspirational. There is little or no visibility of the Geopark as a whole.
- 5. There is no masterplan, no financial security, poor promotional activities as well as poor tourism resources.

# 58. A number of recommendations were provided for the Iron Mountains:

- 1. Improve the management structure with a clear decision-making body and set up a management board that includes the government, municipalities, the tourism marketing and promotion agency, and education institutions.
- 2. Obtain a sustainable financial budget and secure resources.
- 3. Develop a comprehensive masterplan or a strategic plan for the Geopark and use it as a strong platform to develop the Geopark with particular emphasis on creating economic growth through geotourism.
- 4. Enhance relevant infrastructure constructions, including conservation and maintenance, facilities for the geological sites, footpaths, monitoring systems, toilets, souvenir shops and signage to improve the tourism service.
- 5. Upgrade the interpretation system, including outdoor panels and marketing materials. Multi-languages at least two languages including Czech and English are encouraged to be used in all materials for the convenience of international cooperation and communication and to attract more foreign tourists.
- 6. Have a comprehensive Geopark museum as the main visitor centre of the Geopark including the exhibitions of geological, natural, biological, cultural and intangible contents, the basic Earth sciences, national Geoparks, UNESCO Global Geoparks, partners, maps, videos, and interactive areas.
- 7. The sale of geological materials and fossils must be prohibited at any facility associated with the Geopark.
- 8. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 9. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 59. Following the review of the Iron Mountains (Czechia) application dossier and evaluation report, the UGGpC decided that the candidate does not meet the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **reject this candidate as a UNESCO Global Geopark** due to the lack of essential criteria that the area should have fulfilled.
- 60. **Keketouhai** (China): The area is located in Xinjiang Uygur Autonomous Region, the People's Republic of China, in Altay Prefecture, in the inland area of Central Asia; the geographic coordinates are from 89° 29′ 45″ to 90° 11′ 54″ E and from 46° 42′ 04″ to 47° 43′ 45″ N and has a surface area of 2337,90 km². The area is 50 km away from Mongolia in the northeast, about 33 km away from Fuyun County in the west, about 580 km away from Urumchi, with a distance of travel of about 6 hours, and about 300 km away from Altay City, with a distance of travel of about 3 hours. With a distance of about 30 km to National Highway 216, it has convenient transportation. The altitude is between 1072 to 3234 m, and there are many incised valleys. The areas along Fuyun Seismic Fault Zone are characterized by bead-like basins or lake basins. Kalaxianger is located in the transitional zone between the mountainous region and the plain. The area has abundant geomorphic types, especially the granite gorges and basins distributed at the source of the Irtysh River, they are typical and of high ornamental value and research value. Located on the south slope in the middle section of the Altay Mountains, Keketuohai plays an important role in interpreting geological evolution of Altay Prefecture including several times of sea-land changes. Longmenshan orogenic belt

and magma intrusion. In the Geopark, granites of different periods develop forming the Altay granitic geomorphologic landscape and making it the world-renowned granite pegmatite raremetal ore deposit of Keketuohai. The granite landforms are spectacular and the area is now a Geological National Park referred to as China's Yosemite. The rare earth mineralised pegmatite veins are considered world class.

- 61. Two positive reviews of the internationally significant geological heritage were received from the IUGS.
- 62. A number of issues were discussed including the use of the term geo-area / sub-region which is not conducive to a unified territory. This is a very rural area therefore each geographical region within the Geopark needs a different approach to management. The southern area in particular is home to an earthquake site from 1936 and is currently only accessible by an off-road vehicle. There is currently no selling of geological material in the Geopark although this has gone on in the past, so should continue to be discouraged. The management body is a company that was established by the Government (as opposed to a private company) who also run the outstanding geological museum. There are some very good examples of ethnic minorities producing and promoting tourism products.
- 63. A number of recommendations were provided for Keketouhai:
  - 1. A conservation strategy should be developed for the protection, conservation, interpretation and management of the geological sites. This should also include elements of education with particular reference to earthquake hazard reduction and its consequences as well as mining heritage.
  - 2. The management body should not participate directly in the sale of geological objects and should actively discourage unsustainable trade of geological materials as a whole
  - A specific education programme for disaster reduction is very important for the sustainable community development especially for the disaster-prone region with special consideration taken of the evacuation guidance sign for residents and tourists.
  - 4. The management of the Geopark should be strengthened between the individual areas and encourage close collaboration between fundamental partner organisations. The establishment of a Geopark Strategic Planning Committee is encouraged to coordinate activities throughout the entire area. A Geopark Expert Committee should be established to provide support for interpretation at all Geopark sites.
  - 5. Improve the Geopark Museum exhibition to meet the quality standards required of a UNESCO Global Geopark to include material that is both scientifically accurate and visitor friendly.
  - 6. Visibility of the aspiring Geopark should be improved by better use of the Geopark branding, the development of an improved website, and consistent branding throughout as well as standardized interpretation and information panels and publications.
  - 7. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
  - 8. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 64. Following the review of the Keketouhai (China) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.

- 65. Las Loras (Spain): The area comprises 950.76 km² and is located in Spain, in the north of Castilla and León Autonomous Community, occupying a part of the northwest of the Burgos province and a part of the northeast of the Palencia province. The geographical location of the area is 4° 25′5″ 3° 45′15″ W; 42° 31′44″ 42° 52′33″ N. The territory of Las Loras is located north of the Iberian Peninsula, and belongs to the most southern sector of the Basque Cantabrian Basin. The area provides important information about the stratigraphy and sedimentary evolution of southwestern Europe and allows for a better understanding of paleoclimatic and phytogeographic features of this region. There is an almost complete record from the Triassic to Palaeogene with exceptional conditions of outcrop. The territory has a high structural interest since it allows for a detailed reconstruction of the fracturing process ("rift") that occurred during the Lower Cretaceous and of the building of structures during the Alpine orogeny. Palaeontology and geomorphology are other highlights of the geological heritage of the territory. There are many important paleontological sites and the magnificent examples of morphogenetic systems remain some of the most spectacular karst forms and deposits.
- 66. Three positive reviews of the internationally significant geological heritage were received from the IUGS.
- 67. The area has good visibility and there is an established network of strategic partnerships both with regional and local authorities and various universities and associations but the management structure is somewhat ineffective and it needs to incorporate all other tourist sites for it to function properly as a Geopark.
- 68. A number of recommendations were provided for Las Loras:
  - 1. The Geopark needs to adapt the management body to include all municipalities in its management.
  - 2. Visibility should be increased by improved signage at the main entrances to the territory and at all important sites and partner entities.
  - 3. A conservation strategy should be developed for future consideration to take into account increased visitor numbers and include plans for site monitoring.
  - 4. Geotourism programmes and specialized geo-packages should be developed and offered in cooperation with travel agencies. Partnerships should be developed further, in a formal manner, with businesses and potential stakeholders.
  - 5. Geotours on local trails should be organized with the assistance of local communities whose members are trained to understand and interpret the sites for the general visitor.
  - 6. Provide better linkages between geological and cultural heritage when producing interpretative material.
  - 7. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
  - 8. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 69. Following the review of the Las Loras (Spain) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.
- 70. **Leiqiong** (China): Leiqiong applicant territory is located in Guangdong Province and Heinan Province, People's Republic of China. Its geographic location is 19° 49′ 42.55″ 21° 11′ 43.86″ N; 110°1′2.86″—110°31′ 56.48″ E. The surface area is 3050 km² and comprises

different scenic districts: Zhanjiang (2529 km²), Haikou (186 km²), Qiongzhou Strait (335 km²). The area was awarded Global Geopark status in 2006. Based on revalidation of the area in 2014, the area was awarded a 'yellow card' with a strong recommendation to significantly increase the size of the territory. Leiqiong restructured its territory into a unified single area under a strong central management permitting for local sustainable development. To comply with all the requirements of a UNESCO Global Geopark, the area was increased by 379 km² to 3050 km² including the geoheritage of Zhanjiang Scenic District, Haikou Scenic District and Qiongzhou Strait and such an increase in size (>10%) meant that a new application dossier had to be submitted. The Leiqiong volcanic belt comprises a total of 39 volcanoes and is an important and typical representation of the Quaternary volcanoes in China. It has various types of volcanoes formed by magmatic as well as Maar volcanoes formed by phreatomagmatic eruption. It has important scientific and aesthetic value and is often referred to as a "volcano museum". Together with its diversified and abundant geological and cultural heritage, it has also been regarded as a "long lasting volcano textbook". The sedimentation, erosional and depositional features record the significant changes of the geological environment.

- 71. Two positive reviews of the internationally significant geological heritage were received from the IUGS.
- 72. The area still focuses almost entirely on geology with the cultural heritage partnerships not mentioned or integrated. The interpretation is very complex and much too difficult to understand for the layperson indicating a recurrent misunderstanding of what a UNESCO Global Geopark should be. However, the Geopark management team has increased the size as requested and it has good visibility considering the relatively short amount of time available to do this. There has been a significant effort to improve the management and a private guiding service was available, which is unusual for this region.
- 73. A number of recommendations were provided for Leigiong:
  - The expanded Geopark territory should be fully integrated to ensure a coherent and unified territory. All new developments should bear in mind a UNESCO Global Geopark is not a 'geological park'. All new interpretation and information should be easy to understand.
  - 2. A strong partnership should be developed with the ferry companies that operate in the area and this should be used to develop informative displays for all visitors to and from the island. This would also help to emphasize the maritime and coastal heritage of the Geopark, neither of which are currently considered or promoted.
  - 3. A clear partnership strategy should be developed with partners to include a clear methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
  - 4. Visibility should be increased by improved signage at all important sites and partner entities incorporating the Geopark logo and branding.
  - 5. The connection between geology and other aspects of heritage should be emphasized such as between geology and agriculture and the connection in particular with the pineapple culture.
  - 6. Cooperation should be increased between researchers of different specialties to create a more holistic approach to interpretation.
  - 7. Links between the activities of the local ethnic groups and the Geopark should be promoted and local identity should be preserved.
  - 8. Education programmes do not have to be limited to geology and should include information about natural risk and climate change that affect the territory as well as on the different heritages that are present.

- 9. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 10. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 74. Following the review of the Leiqiong (China) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.
- 75. **Lochaber** (United Kingdom of Great Britain and Northern Ireland): The Lochaber aspiring UNESCO Global Geopark occupies the whole of the District of Lochaber of Scotland, UK. The geographical coordinates of the Geopark office in Fort Willam are 56° 49' N, 5° 06' W. It stretches from Rannoch Moor in the south to Glen Garry in the north, to Loch Laggan in the east, and includes the Small Isles of Eigg, Muck, Rum and Canna in the Sea of the Hebrides to the west and has a total surface area of 4648 km<sup>2</sup>. The area is of an irregular shape defined by the boundary of the administrative district of Lochaber set by Highland Council. To the west it is bounded by the Sea of the Hebrides, and inland largely by physiographic features such as mountain ridges. The area is considerably larger than the average UNESCO Global Geopark in Europe and more lightly populated. The geological narrative of this area begins with Archaean Lewisian Gneiss, and ends with recent glacial retreat. Mountainous terrain and a fjord coastline reveal rocks of many different ages. Several localities acquired classic status during the 19th and early 20th centuries. The transcurrent Great Glen Fault separates the Northern Highland Terrane, composed of the Moine Supergroup, from the Grampian Terrane, built from the Dalradian Supergroup. Both Supergroups were deposited in the Neoproterozoic but have different lithologies and different metamorphic histories. Striking folding can be seen on all scales. Subduction-related late Silurian magmatism gave rise to the caldera complexes of Ben Nevis and Glen Coe, the first caldera recognized in ancient rocks. In the west, Palaeocene volcanicity during the opening of the North Atlantic gave rise to the celebrated Ardnamurchan ring-complex and Isle-of-Rum layered intrusion. Evidence of glaciation is widespread and includes the famous 'Parallel Roads' of Glen Roy. The area has been instrumental in the development of theories of crustal evolution particularly of mountain building and metamorphism, magmatism and volcanism as recognised in ancient rocks. The work of the British Geological Survey through mapping the area in during the 19th and 20th centuries was pioneering and established many of the generally accepted principles of such work. The study of the quaternary age deposits and features in the area have contributed to the understanding of action of ice ages in Europe and globally. As such the area has huge scientific value, and massive value for the history of the development of the Earth Sciences.
- 76. Three positive reviews of the internationally significant geological heritage were received from the IUGS.
- 77. Lochaber is a very large territory and is one with an exceptional geological heritage. It was previously a Global Geopark but voluntarily gave up the designation in 2011 for financial reasons. In general, there is poor visibility of the Geopark and many interpretative panels are without reference to the Geopark in general. Many of the products are aspirational such as the exhibition area that is not yet open. The management structure is not effective (but it is a legal entity) as there are no permanent staff and financial security is in some doubt. However, despite the shortcomings there is great potential for a very good UNESCO Global Geopark.
- 78. A number of recommendations were provided for Lochaber:
  - 1. Reorganize the management structure to include permanent staff and relevant stakeholders (local government, statutory agencies, local enterprises and

- communities) and put formal agreements in place to ensure that this works effectively.
- 2. Formulate a long-term financial strategy and secure a higher budget to support all future Geopark activities.
- 3. Visibility should be increased by improved signage at all important sites and partner entities incorporating the Geopark identification, logo and branding. Improve existing Geopark infrastructure and service facilities and develop more infrastructure at Geopark sites that include general information on the area.
- 4. The connection between geology and other aspects of heritage should be emphasized such as those between natural and cultural heritage.
- 5. Further work should be done to promote the tourism potential of the Geopark including working with national tourism agencies.
- 6. Further develop education products but widen their audience to include visitors, families and other target groups.
- 7. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 8. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 79. Following the review of the Lochaber (United Kingdom of Great Britain and Northern Ireland) application dossier and evaluation report, the UGGpC decided that the candidate does not yet fulfil the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board defers this candidate as a UNESCO Global Geopark for a maximum of two years so that it can implement the above recommendations.
- 80. Rinjani-Lombok (Indonesia): Lombok Island is located in the Sunda Kecil Islands or West Nusa Tenggara, between Bali Island, separated by Lombok Strait in its western side, and Sumbawa Island, separated by Alas Strait in the eastern side. Lombok Island is nearly ballshaped with a 70 kilometres "tail" on its southwest. Its geographical location is 116° 0' 29" -116° 45' 58"E to 8° 12' 10" - 8° 38' 20" S. The geology of Lombok Island is generally dominated by Quaternary calc-alkaline volcanoes, which cover the Neogene clastic sedimentary rocks, Oligo-Miocene volcanics and Palaeogene-aged intrusive igneous rocks. The building of the Pleistocene-Holocene volcanic complex is due to the subducting process of the Indian Ocean under the edge of the South East Asia Plate. The Quaternary volcano could further be categorized into old and young volcanoes complex. The old volcano complex consists of two complexes, which are Punikan Mountain and Nangi Mountain on the west and Sembalun Mountain on the east. The youngest volcanic complex is Rinjani Volcano with a volcanic cone formed approximately 12.000 to 6.000 years ago. During pre-Samalas eruption in 13th century there were two volcanic cones, which were Samalas and Rinjani volcano both with separate caldera. Samalas eruption in 1257 resulted in the formation of huge caldera and pyroclastic flow in Kokok Putik. The eruption also caused part of Rinjani's cone collapsed to the caldera of Samalas. Samalas post eruption era was marked by volcanic activity in the caldera in the form of active volcano. Today Rinjani Volcano with its 3726 m above sea level cone is the highest peak in that volcanic complex. Samalas' caldera, which is filled with water, a combination of meteoric water and hydrothermal, formed a warm water pond named Segara Anak. In the middle of the caldera emerges a young volcanic cone called Rombongan Mountain and Baruiari Mountain.
- 81. Two positive reviews of the internationally significant geological heritage were received from the IUGS.

82. It is clear the Ranjani-Lombok area is an already functioning Geopark, with a great potential and a lot of opportunities to develop even further. The volcano Mt Rinjani and the Gili Islands are already well known worldwide and these need to be exploited and used as sites to develop geotourism in a stronger way and to enhance the Geopark's territory and visibility. The Geopark's activities have very strong support from the local communities, by the local authorities, by the Ministries and an enthusiastic staff. However, there were some concerns raised about the similarities with the nearby Batur UNESCO Global Geopark on Bali.

#### 83. A number of recommendations were provided for Rinjani-Lombok:

- 1. A full and comparative study is needed between the applicant territory and the Batur UNESCO Global Geopark to ascertain if there is a similar geological heritage.
- 2. Develop a stronger collaboration with Universities and Research Institutes to guarantee an efficient support from a scientific point of view.
- 3. Improve the interpretation activity and design of interpretative panels to make some geosites more effective and well presented.
- 4. Develop more educational programmes for local schools to increase their knowledge about the unique geological heritage and other aspects of heritage in Rinjani-Lombok Geopark and use local Geopark guides and interpreters to organize educational and training courses on a regular basis to increase and to qualify their skills.
- 5. Visibility of the aspiring Geopark should be improved especially at Gili Trawangan, by better use of the Geopark logo and consistent Geopark branding throughout including the improvement of the Geopark website and emphasize the connection between geology and other aspects of heritage.
- 6. A clear partnership strategy should be developed with partners to include a clear methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 7. The Geopark has to strengthen the knowledge, conservation and understanding of ethnic groups (e.g. the Sasak people) in relation to their culture, language, and traditional practices.
- 8. Plan a mid-term proposal to enlarge the boundaries of the Geopark to include the whole Lombok Island.
- 9. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 10. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 84. Following the review of Rinjani-Lombok (Indonesia) application dossier and evaluation report, the UGGpC decided that the candidate does not yet fulfil the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **defer this candidate as a UNESCO Global Geopark** for up to two years pending the results of the study requested in recommendation 1.
- 85. **Mixteca Alta, Oaxaca** (Mexico): The topography of Mixteca Alta results from the broad contact of the Sierra Madre del Sur and the Sierra Madre Oriental, two of the main Mexican mountain ranges; dominant altitudes range between 2000 and 2500 m, the highest altitude is the Cerro Verde, or Nudo Mixteco (2892 m). Soils are heavily eroded and original vegetation is restricted to small patches of oak-pine forest at higher elevations. Agriculture takes place in valley plains and hilly areas, soil productivity is limited, partially resulting from the severe erosion and the lack of labour, due to intense emigration. The geographical location is 97°11′

- 53´´ 97°27´ 40´´W; 17° 25´ 20´´ 17°39´ 27´´ N with a surface area of 415.4km². The region where the Mixteca Alta is located is the most complex in terms of its geology in Mexico. According to the main theme of the Geopark (erosion, culture and geoheritage), many of the selected geosites are related to erosional-depositional processes and landforms associated with the intensive use of land for farming purposes. A number of geosites were selected to explain these links, including: gullies and badlands, mass wasting features, and palaeosols. Other geosites include geological contacts, plutonic and tectonic structures (dikes and sills, faults) and spheroidal weathering in outcrops.
- 86. Two positive reviews of the internationally significant geological heritage were received from the IUGS.
- 87. The territory is an exemplar for the bottom-up approach required by Geoparks and is a mix of erosional features, geoheritage, and vibrant indigenous culture. The area has almost double the national average of people living in extreme poverty with nearly a third of the population having no access to healthcare. There are some very good aspects to the territory including an interpretative centre, a good museum, community guides, and very strong local participation. There are however no permanent staff but despite this the territory is operating as a *de facto* Geopark and UNESCO Global Geopark status would bring about significant positive change in such a challenging economic environment.
- 88. A number of recommendations were provided for Mixteca-Alta:
  - 1. A permanent staff member should be involved in the Geopark as soon as possible.
  - 2. The Geopark needs an Action Plan with a dedicated annual budget and a timeline for the development of its work.
  - 3. The interpretative centre should be further developed to include a more interesting and comprehensive exhibition on the Geopark.
  - 4. Visibility of the aspiring Geopark should be improved by better use of the Geopark logo and consistent branding throughout including the improvement of the Geopark website, better road signage, and emphasize the connection between geology and other aspects of heritage.
  - 5. Safety and conservation measures should be applied at sensitive and vulnerable sites.
  - 6. A clear partnership strategy should be developed with partners to include a clear methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
  - 7. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
  - 8. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 89. Following the review of the Mixteca-Alta (Mexico) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.
- 90. **Qeshm Island** (Islamic Republic of Iran): Qeshm is the largest island of the Persian Gulf region. Its geographical location is 55° 15′ 56° 40′ E; 26° 30′ 27° 05′ N and it has a surface area (including the Mangrove Forest area, Hengam Island and Dolphin's Bay) of 2063 km². The Qeshm Area of the Persian Gulf Region off the southern coast of the Islamic Republic of

Iran forms part of south and eastern extreme foreland of the Zagros geological and structural Province, expressed in the NW-SE trending Zagros Mountain ranges. The more southerly part of the Zagros Fold Belt faces but is separated from the Oman Region while the Makran geological and structural Province lies to the east, beyond the Minab-Oman fracture zone. The highest mountain peak on Qeshm Island is related to the Kish Kuh Anticline structures that have increased the height in part as an effect of diapirism tectonics, related to the Namakdan Salt Plug. In addition to the salt formation and complex, some of normal sedimentary formations are exposed in the different anticline structures on the island. The succession consists of conformable Neogene (Mio-Pliocene) units, with a total thickness of about 1200 to 1850 meters from the eastern to western ends of this island, respectively. In general, mountainous or high ranges nearly coincide with the folds having anticline structure, or in part as salt dome diapers, and the relative lowlands are mainly within or based on intermediate forms or synclines.

- 91. Three positive reviews of the internationally significant geological heritage were received from the IUGS.
- 92. Qeshm Island was previously a Global Geopark but lost the designation in 2012 after two successive unsuccessful revalidations, which resulted in a 'red card' being awarded. However, this reapplication has been submitted with a much larger area that now includes all of Qeshm Island as well as Hengam Island and Dolphins' Bay and with a greater number of sites of geological significance. The territory has a strong management structure and good financial stability. The visibility of the Geopark is exceptional and is excellent throughout the territory, which is complemented by very good Geopark infrastructure. There is very strong local participation with superb examples of women's cooperatives all across the territory. The Hara Mangrove Man & Biosphere Reserve is completely within the boundary of the territory and relationships between the Geopark and the Hara Mangrove being strengthened.
- 93. A number of recommendations were provided for Qeshm Island:
  - 1. The formal partnership between the Environment Protection Agency and the Geopark should be nurtured and developed to allow for the successful synergies between the two and to avoid duplication of roles.
  - 2. The newly developed Geopark website lacks information and should include more tourist information on sites to visit, information on partners as well as on Geopark products (when they become available).
  - 3. All the incomplete information centres should be finished as soon as possible and provide linkages between Geopark sites as well as information on the GGN when UNESCO Global Geopark status is achieved.
  - 4. Cooperation should be developed with local tourist offices to promote the Geopark and Geopark partners and develop packages to include accommodation, transport and food.
  - 5. Whilst information on the links between geological heritage and other aspects of heritage is present in the application dossier, this was not particularly evident on the ground. This should be incorporated to ensure that this is communicated.
  - 6. Some interpretation is quite technical and should be 'translated' for the non-geologist in order to appeal to a much wider audience.
  - 7. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
  - 8. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 94. Following the review of the Qeshm Island (Islamic Republic of Iran) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGGp criteria to become

a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.

- 95. Saga (Iceland): The applicant area is located in Borgarfjörður district in western Iceland with a geographic location of 19° 47' 35.5" - 21° 20' 53.9" W; 64° 31' 40.8" - 64° 57' 09.2" and a surface area of 2270 km<sup>2</sup>. It is located at the edge of the volcanic rift zone in SW Iceland, which is characterised by diverse subglacial and intra-glacial volcanic formations. Among the interesting aspects of the area is its extensive geothermal activity and the various uses that people have made of the available geothermal resources ever since the country was settled in the 8th century. The area includes the largest low/medium enthalpy geothermal area in Iceland as well as the world's largest boiling hot water spring, "Deildartunguhver". Saga aspiring UNESCO Global Geopark is located in Borgarbyggð Municipality, covering almost half of its geographical territory but harbouring only 10.2 per cent of its population or 360 out of 3,535 inhabitants. The main road connecting north and south Iceland runs a few kilometres west of the area. Iceland straddles the Mid-Atlantic Ridge at a point where the rate of tectonic plate spreading is 1 cm a year in each direction. A mantle plume has been active there since the opening of the North Atlantic some 60 million years ago. The axial volcanic rift zone intersects Iceland from the southwest to the north, connecting with different segments of the Mid-Atlantic Ridge at each end. The proposed Saga Geopark will be situated within the western branch of the volcanic rift zone at a location where an old transform zone is still active. Volcanic eruptions occur every four years on average in Iceland. Crust permeability and heat flow are both high, favouring the existence of hot springs of various types. The proposed Geopark will operate within an area uniquely suited to learning about the interaction of ice and lava, the formation of various subglacial and subaerial volcanic products, the nature of geothermal fields, and details of glaciation and deglaciation during the ice age.
- 96. Three review were received by IUGS. The IUGS reports provided contradictory evidence of geological heritage of international value.
- 97. The international value of the geological heritage of the territory is unclear with much of the geological description being only of national importance. There was only one interpretative panel seen and this was not erected. There is a concern about the environmental damage that accessing some of the sites causes, as these are only accessible by off-road vehicles. There is a good connection between the Geopark and Visit West Iceland and the management structure is good but does not meet very often. There is currently no geoscientist available on a daily basis.
- 98. A number of recommendations were provided for Saga:
  - 1. A list of references that can justify the international significance of the geological heritage should be provided.
  - 2. Visibility of the aspiring Geopark should be improved by better use of the Geopark logo and consistent branding throughout including the improvement of the Geopark website, better road signage, and emphasize the connection between geology and other aspects of heritage.
  - 3. There should be staff dedicated to Geopark activities and information made available on how to get in contact with the staff or guides.
  - 4. Access to a geoscientist on a daily basis is required.
  - 5. At least one of the proposed visitor centres should be equipped with Geopark information and information about Geopark activities.
  - 6. A clear partnership strategy should be developed with partners to include a clear methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.

- 7. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 8. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.
- 99. Following the review of the Saga (Iceland) application dossier and evaluation report, the UGGpC decided that the candidate does not fulfil the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **reject this candidate as a UNESCO Global Geopark**.
- 100. Trollfiell (Norway): The area is located on the coast of central Norway. It covers six municipalities: Brønnøy, Vega, Vevelstad, Sømna, Bindal (Nordland county) and Leka (Nord-Trøndelag county). The aspiring Trollfiell Global Geopark covers an area of 10 082 km<sup>2</sup>, 6,763 km<sup>2</sup> (67 %) of which is sea and 3319 km<sup>2</sup> (33 %) land and its boundary has been set to coincide with the municipal boundaries. Torghatten is approximately in the centre (65° 23' 898"N and 12° 05' 385"E). The area includes more than 12 000 islands and skerries (small rocky islands). The Trollfjell area displays a 500 million year-long geological macro-cycle, from ocean to ocean. The bedrock is composed of rocks that once were formed beneath, in and along an ancient ocean - The lapetus. They display the architecture of an oceanic crust and the transition to continental settings, as well as the final closing of this ocean resulting in the continent-continent collision forming the Caledonian mountain chain 400 million years ago. The present landscape forms the margin of a 'new' ocean, the Atlantic. Glacial erosion has uncovered the rocks from the past, and shaped a unique coastal landscape of monumental mountains rising from the strandflat with its numerous islands. The land has been lifted more than 100 meters by isostatic rebound since the last ice age. Ancient shorelines can be seen up to this level, where traces from the first settlers arriving 11.000 years ago are found.
- 101. Two positive reviews of the internationally significant geological heritage were received from the IUGS.
- 102. The Geopark is a vast area comprising an extended coastal platform with islands and skerries and an inland area reaching from seashore up to alpine landscapes in a short distance. Transportation in the area is challenging, and sea transport is required. The Geopark has reached a good state of visibility by a dense coverage of information panels and other Geopark related information. A network of hiking and biking routes, also kayak tours, are already in existence and are well way-marked. The extent of educational activities is minimal but there are some indications that this will advance in the future. There will be a need for more people who will have the capability to conduct excursions or provide visitor groups if the Geopark wants to attract more visitors to the region. There is no museum or info-center dedicated only to the Geopark. The World Heritage Site of Vega Archipelago makes up 10% of the Geopark area. Although the WHS is supporting the Geopark there should be a careful look on the future co-existence and co-operative development of both UNESCO designations. What could be seen during the mission is that this seems to be on a good way. There are no permanent staff and the financial stability of the Geopark is in some doubt.

# 103. A number of recommendations were provided for Trollfjell:

- 1. Further clarification of financial stability of the territory is necessary reaching until at least the year 2020.
- 2. A museum or information centre dedicated to the Geopark and the Earth heritage of the area should be established.
- 3. Educational activities should be further developed to include the entire territory.
- 4. A qualification programme should be developed to enlarge the number of Geopark quides.

- 5. Further development should take place on the mainland area of the Geopark to ensure geographic equity throughout the territory.
- 6. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 7. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

104. Following the review of the Trollfjell (Norway) application dossier and evaluation report, the UGGpC decided that the candidate does not yet fulfil the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board defers for a maximum of two years this candidate as a UNESCO Global Geopark, to allow the above recommendations to be implemented.

105. **Tungurahua** (Ecuador): The area is located in Ecuador (00° 55' 00" and 01° 34' S, 78° 06' 51" and 78° 31' 60" W) covering cantons within the provinces of Tungurahua and Chimborazo, both of which are named after the most important volcanoes in their area. Patate, San Pedro de Pelileo and Baños de Agua Santa belong to Tungurahua, (5023 m) and Guano and Penipe are in the province of Chimborazo, also home to the volcano of the same name (Chimborazo at 6,310m is the closest point to the sun on Earth) together with El Altar (extinct, standing at 5320 m) and Carihuairazo (likewise extinct and standing at 5102 m). The total surface area is 2427 km<sup>2</sup>. The area is located in the Central Andes of Ecuador, with volcanoes from the Cordillera Occidental and Cordillera Oriental together with a large fault system that runs under some of the volcanoes (Sud-Andean Fault) and parallel to others is the Inter-Andean Valley. The area is dominated by volcanic material coming from eruptions of active volcanoes, such as Tungurahua, and supposedly inactive but potentially active volcanoes such as Puñalica and Chimborazo, and from volcanoes now classified as totally inactive (Igualata, Altar, Mulmul Huisla and Carihuairazo). All of these have generated different types of phenomenon from tephra fallout through to sector collapses of the volcanic edifice. There are many different geomorphological formations to be observed: nappe tectonics, lagoons, glaciers and evidences of mass displacements in general. Tungurahua volcano reactivated in 1999 and has caused volcanic ash fallout, lahars and pyroclastic lava flows that have altered the life of the surrounding populations, above all in the rural areas, changing their lives, lifestyles, and future plans while leading to mass emigration that endangers the identity of the

106. Two positive reviews of the internationally significant geological heritage were received from the IUGS.

107. The Tungurahua territory development is as a result of a presidential commitment. There is excellent gateway signage and strong links between geology and cultural heritage at many locations. The application dossier was completed by an external consultant and didn't accurately reflect the territory. The area contains a World Heritage Site. There are no formal partnerships and the management body seems to be in its very early stages of creation. There are strong women's cooperatives but local produce lacks any set criteria. There is a good level of support locally with a good knowledge of Geoparks. It is acknowledged that a lot of work has been done at Tungurahua but that this application may be premature.

108. A number of recommendations were provided for Tungurahua:

- 1. The geological map should be specifically improved for the territory (scale higher than 1:400,000) and made available for internal use with the clear location of the sites.
- 2. A small publication with a brief geological history and description of each Geopark sites should be made available.

- 3. All new panels should have consistent branding and should show the common engagement of all five cantons in a unified territory under the same designation: "Geopark Volcano Tungurahua".
- 4. Specific Geopark education programmes for all levels should be created including Earth science education with excursions.
- 5. The new visitor centre should contain a collection of representative Geopark rock samples and should link to and promote the different Geopark heritages.
- 6. Special attention should be paid to issues related to climate change that are already mainly evident in the Los Altares and in Chimborazo volcanos, creating informational materials and promoting activities for students and the general public.
- 7. Other prominent UNESCO issues like sustainability, indigenous people's livelihoods and culture, and gender equality should be focused on in future outreach material, putting in evidence the good examples of the territory.
- 8. A clear partnership strategy should be developed with partners to include a clear methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 9. A written memorandum of understanding should be obtained with the other protected areas in the territory, especially those with other UNESCO designations, should document synergies and common goals.
- 10. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 11. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

109. Following the review of the Tungurahua (Ecuador) application dossier and evaluation report, the UGGpC decided that the candidate does not yet fulfil the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **defers this candidate as a UNESCO Global Geopark** for a maximum of two years to allow the above recommendations to be implemented. The area also has the offer of a consultancy mission from UNESCO to assist with this implementation plan.

110. **Zigong** (China): The territory covers an area of 1630.46 km<sup>2</sup> and is located in the territory of Zigong City, Sichuan Province of China and its geographical position is: 104° 02′ 58″ - 104° 54' 41"; E 29° 11' 38" - 29° 36' 55" N; altitude: 241 – 901 m, average altitude is between 250 and 500 m. The area is about 200 km away from Chengdu city, the capital of Sichuan and Chongqing Metropolis respectively and it is only 67 km away from Yibin airport; besides, the highway network can easily get access to the major cities in Sichuan Province. After the demise of the Paleotethys Ocean, the area became a limited saltwater sea with enriched evaporated salts. After the Mesotethys Ocean demised during the end of the Triassic, the Sichuan Foreland Basin was formed due to isostasy of Longmen Mountain Orogenic Belt (a part of the Eastern margin of the Tibet Plateau since then). Thus during the middle-late Jurassic, creatures like dinosaurs have been prosperous in the basin where plains, rivers and lakes are distributed alternately, but large numbers of dinosaurs and trees died and were buried under sediment quickly due to intense tectonic activities, developing into the fossil site of dinosaurs and petrified woods. Since the 1st century, the splendid Salt civilization has been created through mining the salt deposits formed by the Paleotethys residual sea. Zigong Geopark enjoys an extremely broad and deep geoscientific connotation, especially in the aspects of the super abundant ancient vertebrate fossils with the dinosaur fossils as the main body, the typical Jurassic stratigraphic section and the complete well and rock salt sites, which all present important scientific value. It is a treasure house of natural history with global significance. In the widely exposed Jurassic continental strata of the Park, a great number of

dinosaur and other ancient vertebrate fossils are contained which often form large-scale dinosaur fossil sites. The abundant bittern resources in the Park area and nearly two thousand years of salt mining history retains many of the historic sites of salt production and creates the ten "world's first" scientific technologies of the salt production.

111. Zigong Geopark first became a Global Geopark in 2008 and was successfully revalidated in 2012 and awarded a 'green card'. It has submitted a new application due to an increase in size of greater than 10% following recommendations in the last revalidation report. The Geopark is world-famous for its fossil dinosaurs and contains many superb sites including impressive museums where these can be seen. It has a few issues with branding in that the area is not marketed in a consistent fashion, and the visibility can be low, especially in areas with high footfall / volumes of traffic.

#### 112. A number of recommendations were provided for Zigong:

- 1. The exceptional achievements in dinosaur fossil sites geo-conservation, protection and management should be applied to other fossil sites. Special emphasis should be given for the interpretation of the Zigong Global Geopark landscapes in a way that will attract the interest of the general public. Interpretation panels should be visible along the main roads to have maximum impact. A more accurate database concerning the precise location of geosites, and a preventive strategic plan in coordination with the municipality to survey public works and quarries in order to recover as much geological heritage as possible is required.
- 2. The management of the Zigong Global Geopark needs further support and strengthening in order to fulfil the comprehensive work of the unification and distribution of the Geopark activities in the extended Geopark territory.
- 3. A Geopark Strategic Planning Committee chaired by the Mayor of Zigong and including the Director of the Zigong Global Geopark Administration Office and the Directors of all six partner organizations is strongly recommended.
- 4. The Geopark Expert Committee should take special care for establishment of the Zigong Global Geopark Geological Heritage Site Database as an important tool for the holistic management of the Zigong Global Geopark geological heritage.
- 5. Visibility of the Geopark should be improved by better use of the Geopark logo and consistent branding throughout including the improvement of the Geopark website, better road signage, better promotional material, and emphasize the connection between geology and other aspects of heritage.
- 6. A clear partnership strategy should be developed with partners to include a clear methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 7. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 8. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

113. Following the review of the Zigong (China) application dossier and evaluation report, the UGGpC decided that the candidate fulfils the UGGp criteria to become a UNESCO Global Geopark and proposes that the Executive Board **endorse this candidate as a UNESCO Global Geopark** for four years.

#### **VII.UNESCO Global Geoparks revalidations in 2016**

114. Attention should be drawn to Section 5.6 (vi, vii and viii) of the Operational Guidelines for UNESCO Global Geoparks that clearly outlines the possible outcomes of the revalidation process. These have been provided below:

- 1. If, on the basis of the revalidation report, the Council considers that UNESCO Global Geopark continues to fulfil the criteria set-out in Section 3 of the UNESCO Global Geopark guidelines, in particular that the quality and management of the area have improved or at least continues to be satisfactory since designation or last revalidation, it may decide that the area will continue as a UNESCO Global Geopark for a further four-year period (so-called "green card").
- 2. If, on the basis of the revalidation report, the Council considers that the UNESCO Global Geopark no longer fulfils the criteria, it may decide to inform the management body of the UNESCO Global Geopark to take appropriate steps within a two-year period to ensure that the criteria will be met and maintained. In such instances, the status of the area as UNESCO Global Geopark will be renewed only for a two-year period after which a new revalidation report and a new field mission will be undertaken with the same conditions referred to in (ii), (iii) and (iv) of Section 5.6 of the Operational Guidelines for UNESCO Global Geoparks (so-called "yellow card").
- 3. Should the UNESCO Global Geopark not fulfil the criteria within two years after receiving a "yellow card", the Council will decide as appropriate that the area concerned should lose its status and all relevant entitlements (so-called "red card").

# 115. Adamello Brenta (Italy)

Following the review of the Adamello Brenta (Italy) revalidation report, the UGGpC decided to award a **yellow card** for the following reasons:

- 1. There is no permanent geoscientist available on a daily basis.
- 2. There is a lack of visibility of the Geopark and they should have a brand independent from that of the National Park.
- 3. There is a lack of networking and participation in activities with other UNESCO Global Geoparks.

The following recommendations have been made:

- 1. A geoscientist should be available on a daily basis and employed on a full-time basis as opposed to the current 75%.
- 2. Visibility of the Geopark should be improved by the improvement of the Geopark website, and branding independence from the National Park.
- 3. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 4. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 116. **Bakony-Balaton** (Hungary)

Following the review of the Bakony-Balaton (Hungary) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. Visibility of the Geopark should be improved.
- 2. Replace "old logos" when renewing panels and remove from existing panels.
- 3. Increase and improve the interpretation at geosites and integrate historic aspects and intangible heritage.

- 4. Develop meeting points or centres to give an overview to visitors for an orientation within the territory and for geotourism development.
- 5. Develop, define and describe a geotourism and Geopark identity that can easily be understood and explained to visitors and be used for further geotourism activities.
- 6. Continue to develop Geopark information and leaflets in different languages, including English, German and Russian.
- 7. A clear partnership strategy should be developed with partners to include a clear methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 8. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 9. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 117. **Batur** (Indonesia)

Following the review of the Batur (Indonesia) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- Continue the excellent work of employing local guides but ensure that they are all trained on interpreting the landscape and the different components that make up the Geopark. This could be developed as a specific Geopark diploma and could also be offered in English if required.
- 2. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 3. A clear brand should be developed for Geopark products providing necessary added value and greater visibility for the Geopark as a whole.
- 4. The trekking product offered by the Geopark should be better developed and promoted and should include clear criteria on quality, security and guide training.
- 5. It is important to diversify the Geopark products on offer so a 'lake route' should be developed that includes short boat tours of the lake and panoramic interpretation of several key sites.
- 6. Visibility of the Geopark should be improved by better use of the Geopark logo and consistent branding throughout including the improvement of the Geopark website, better road signage, promotion at the airport and emphasize the connection between geology and other aspects of heritage.
- 7. The boundary of the Geopark is currently based on geology and geomorphology. It is worth considering modifying this to adhere to administrative boundaries that also correspond to cultural territories.
- 8. Clarification should be provided on the impact of tourism on the Trunyan Cemetery site and the respect that should be displayed from visitors.
- 9. The efforts against illegal quarrying in the Geopark area should be continued.
- 10. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 11. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

118. A discussion took place regarding the presence of representatives from UNESCO Global Geoparks that were due to be reviewed by the UGGpC. It was agreed by all that those

members should leave the room during the review of the respective Geopark in order to avoid any conflicts of interest.

# 119. Beigua (Italy)

Following the review of the Beigua (Italy) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- The hotel industry and tourism association are important Geopark partners and should be given greater tasks to manage Geopark guiding activities and geotourism experiences.
- 2. Further improvement should be made to the current design, presentation and focus of interpretation material by including generic information about the Geopark concept in addition to specific material at each particular location.
- 3. A specific geotourism project should be introduced to target visitors to the beach region to encourage them to travel inland and spend time in the mountain region of the Geopark.
- 4. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 5. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 120. Bergstrasse-Odenwald (Germany)

Following the review of the Bergstrasse-Odenwald (Germany) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. The Geopark management body should continue to cooperate and collaborate with the local communities and the other partners operating within the Geopark in order to improve further the operation of the Geopark.
- 2. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 3. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 121. Bohemian Paradise (Czechia)

Bohemian Paradise was last revalidated in 2014 and received a yellow card. Following the review of the Bohemian Paradise (Czechia) revalidation report, the UGGpC decided to award a **green card** with the following strong recommendations:

- Visibility of the Geopark should be greatly improved by ensuring the installation of information panels at strategic gateways to the Rock City trails and at lookout Points, completing the project to install signage at major gateways to the Geopark, increasing the number of Geopark Corners and using the results from the new geological map of the Geopark to produce a map for tourists.
- A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. Particular emphasis should be placed on developing partnerships with the University of Hradec Kralov, the Turnov School of Decorative Arts and the Forests of Czechia.

- 3. Progress the investigation with the Liberec Region on the economic background on the sale of geological materials in its territory.
- 4. Continue progressing relationships between the communities, regions and the Geopark.
- 5. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 6. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

#### 122. Carnic Alps (Austria)

Following the review of the Carnic Alps (Austria) revalidation report, the UGGpC decided to award a **yellow card** for the following reasons:

- 1. The sale of geological material is ongoing and this is not acceptable unless in exceptional circumstances. This is compounded by the promotion of events such as 'Collectors Day', which should not be encouraged.
- 2. The budget of the Geopark is not secure with only 57% being in place.
- 3. A permanent and secure position of the Geopark manager is entirely dependent on temporary funding projects and is simply not possible.

The following recommendations have been made:

- 1. Increase the cooperation with local stakeholders inside the Geopark, as well as their commitment. This is connected to the strengthening of the Geopark's holistic approach by communicating the connection of Earth history, nature, man and culture at all levels.
- 2. Increase activities towards sponsorship and financial support in order to consolidate the Geopark budget, which is currently only 57 % secure. The position of the Geopark manager should not depend on the approval of an EU funding project. Therefore, it is necessary to work towards a permanent and secure position of the Geopark manager, which is independent of temporary funding budgets.
- 3. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 4. The visibility of the Geopark needs to be increased with respect to the local partners by the display of brochures and publications (ensure that tourist offices and hotels continue to be stocked).
- 5. Increased visibility of the GGN and UNESCO Global Geoparks is needed, this should include but is not limited to using relevant logos in all panels and publications, and on the Geopark website.
- 6. Upgrade and amend existing panels with the international logos.
- Rename and change the focus of "Collectors Day" to prevent any association with the collection of geological material as it was felt this was setting a bad precedent for further activities.
- 8. The sale of geological material should not take place. Occasional and limited collection can take place under Geopark supervision only for geo-educational and scientific purposes.
- 9. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 10. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

#### 123. **Central Catalonia** (Spain)

Following the review of Central Catalonia (Spain) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- Strengthen the visibility of this Geopark, with some mechanisms considered for visitors
  to recognize that they are within the Central Catalonia UNESCO Global Geopark and
  to learn the linkage of the geological heritages with biodiversity, culture and human life,
  especially in the Montserrat area.
- 2. Develop a specific Geopark visitor centre to complement the existing information centres that are currently not dedicated entirely to the Geopark.
- 3. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark, and in particular with Montserrat, a key tourist attraction within the Geopark but currently with little or no visibility of the Geopark.
- 4. Develop a system for training Geopark guides to ensure that they effectively communicate the geological heritage in their own words and link to the other heritage that they are familiar with.
- 5. Further develop education programmes that include regular training for school teachers on geoscience.
- 6. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 7. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 124. **Chablais** (France)

Following the review of the Chablais (France) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. Even though there is a clear networking with other UNESCO Global Geoparks there is a need to continue these efforts and to assure a better communication of the networking and the activities of other UNESCO Global Geoparks in the Geopark offices, museums and other public areas.
- 2. Continue to develop and reinforce its strategy and the programs that have been established in the territory, and that have been implemented by its team comprising a coordinator, a geoscientist, an education expert and the tourism and marketing expert.
- 3. The strong relations and support of the local mayors and technical staff could be further developed at a Departmental and Regional level to strengthen the Geopark.
- 4. The operational network of tourist offices, guides, visitor attractions and partnerships (private companies, local produce and products, artistic events) should be developed.
- 5. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 6. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

#### 125. **Danxiashan** (China)

Following the review of the Danxiashan (China) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- All geological information should be easy to read and understood by the general public in all locations and should be done in an interactive and engaging way where possible. The use of specialist language should be avoided at all times.
- 2. Increase the visibility and integration of the intangible heritage of the Geopark and how this links in to the geological heritage.
- 3. Improve visitor access for this with limited mobility.
- 4. The carrying capacity of the Geopark should be assessed to avoid future physical and environmental damage.
- 5. A geotechnical investigation should be carried out of the rock stability in the active area of the Geopark.
- 6. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 7. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 126. Fforest Fawr (United Kingdom of Great Britain and Northern Ireland)

The last revalidation suggested that the boundary of the Geopark be extended to include the full area of the Brecon Beacons National Park. After the establishment of a steering group to assess the feasibility of this, it was decided that for both geological and economic reasons this was not possible.

Following the review of Fforest Fawr (United Kingdom of Great Britain and Northern Ireland) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. The identity of the Geopark should be strengthened. The Geopark is operating inside the National Park borders and this can be confusing at times for the visitors. The strengthening could be done by erecting roadside panels to the entering points of the Geopark, creating a set of Geopark products of local handcrafts or/and food and creating a Geopark Facebook Page and/or using some other social media channels.
- The Geopark should develop and maintain a comprehensive basic exhibition of its most important features in one of the numerous information centres inside the Geopark. At the moment the information is scattered around area and for a visitor it can be a bit difficult to fully understand the full story of the Geopark with its geological, natural and cultural connections.
- 3. Every effort should be made to reopen the Waterfall Geopark Visitor Centre as a focus point for the Geopark.
- 4. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 5. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

#### 127. **Huangshan** (China)

Following the review of Huangshan (China) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. Continue to improve geoconservation initiatives, educational programs, materials and information about the Geopark.
- 2. Continue the work to unify the signboards and the informative panels, using the new UNESCO Global Geopark logo and renewing the oldest ones.
- 3. Find a different audio system for guides along the trails with the aim of reducing the noise pollution that can interfere with normal activities for humans and wildlife.

- 4. Spread the experience of the Command and dispatch Centre of protection and management and its best practices.
- 5. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 6. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 7. Integrate the website using English language to better spread information to foreign visitors.
- 8. Increase the number of guides in the Huangshan Geopark Museum with the aim of providing more detailed information for visitors.
- 9. Reduce the use of technical scientific language in all interpretation and information.
- 10. Clarity should be provided on the differences between the Geopark boundary and that of the World Heritage Site.
- 11. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

#### 128. **Lesvos Island** (Greece)

Following the review of Lesvos Island (Greece) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. Increase the amount of holistic interpretation to include a multi-disciplinary approach to the information provided at all sites.
- 2. The linkage between geology, culture, history and human life should be more visible through strengthening the cooperation between the Geopark and natural, historical or archaeological sites.
- 3. Invest on the renewing and restoration of old Geopark infrastructure such as that found inside the Petrified Forest protected site.
- 4. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is with particular reference to the women cooperatives, where no Geopark brand and quality criteria is available at the moment and the link with the Geopark is not visible in the partner's office or on products.
- 5. Strengthen the cooperation between the Geopark and the trekking trails network. A partnership with the association would help to integrate the hiking activities on the Geopark flag, to develop the link between hiking and heritage discovering and perhaps develop common interpretative trails.
- 6. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

Special reference was made to the huge levels of assistance and support that the Geopark has given to the influx of refugees seen on Lesvos Island.

#### 129. **Longhushan** (China)

Following the review of Longhushan (China) revalidation report, the UGGpC decided to award a **yellow card** for the following reasons:

- 1. The Geopark does not currently operate as a unified territory with a number of sub regions present that are all managed separately.
- 2. The Geopark covers a very large area and due to this there is very poor visibility in the entire area.

3. The large size of the Geopark and the segmented management approach means that sustainable development cannot be effectively achieved.

The following recommendations have been made:

- 1. A unified approach to management should be developed to ensure effective delivery of a sustainable development strategy right across the Geopark area. This should also be reflected in the visibility with an increase in visibility across the entire territory.
- 2. Geopark Corners should be developed in the Intelligent Tourist Center where visitors could obtain enough information about the UNESCO Global Geoparks, and elemental data about other UNESCO Global Geoparks.
- Improvement of the current educational activities should be made to include more development of primary and secondary education for both the classroom and for fieldwork.
- 4. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 5. Training courses should be offered for teachers in the outdoors context and at all levels.
- 6. Local traditions and intangible heritage should be incorporated into the Geopark.
- 7. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 8. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 130. Marble Arch Caves (Ireland / United Kingdom of Great Britain and Northern Ireland)

Following the review of Marble Arch Caves (Ireland / United Kingdom of Great Britain and Northern Ireland) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 2. Better integration of the rich intangible heritage of the area should be developed.
- 3. Visibility of the Geopark should be improved by the updating of all material with the new logo and should be rolled out across the entire area.
- 4. Steps should be taken to increase the amount of entrance signage.
- 5. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 6. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

#### 131. Rocca di Cerere (Italy)

Following the review of Rocca di Cerere (Italy) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

1. The renovations of the Floristella Mining Park should continue with access to the subterranean wells made to the public.

- A general geological interpretation of the whole territory should be produced for the general public in order to appreciate the significance of the entire region with special reference to the Messinian Salt Crisis. This should be available as a published document so that the casual visitor can access this at key information centres and sites.
- 3. Clarification should be provided as to who the main geoscientist at the Geopark is.
- 4. A network of viewpoints with geological and landscape interpretation panels is encouraged.
- 5. The hydrogeology of the Geopark should be interpreted at the Leonforte hydroelectric site.
- 6. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 7. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 132. **Sanqingshan** (China)

Following the review of Sanqingshan (China) revalidation report, the UGGpC decided to award a **yellow card** for the following reasons:

 The Geopark boundary is exactly the same as the core area of the World Heritage Site, which prevents any development within. This does not conform to the Geoparks philosophy, as sustainable development is a fundamental part of each UNESCO Global Geopark whereas the core area of a World Heritage Sites severely curtails development.

The following recommendations have been made:

- 1. The Geopark boundary must change to include areas that are not within the World Heritage Site core zone. This could be achieved by an increase of 10% to avoid the need to submit an entirely new application, but creating an area that is greater than the WHS buffer zone that would allow for less restricted sustainable development.
- 2. The information panels are in general in very good condition and the interpretation but they should include less botany and include better images to allow for better understanding of geological heritage.
- 3. Information on the cooperative work between the Geopark and the World Heritage should be included on information panels.
- 4. For visitor safety purposes it is recommended that an emergency phone system in put in place to ensure effective security of all sites once the trails are closed.
- 5. The Geopark guides should wear a uniform to make them easily identifiable and to increase the visibility of the Geopark.
- 6. Improve the internal exhibition at the Sanqingshan to meet the expectations raised by the impressive outer structure. This should include interactive and easy to understand exhibition and information on the entire Geopark.
- 7. The use of electric vehicle at sites such as the Tianyuanmuge-Yulian waterfall to reduce the impact of visitors.
- 8. The use of technical language on all interpretation should be reduced and easy to understand material should be developed for the general public.
- 9. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 10. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.

11. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 133. Shilin (China)

Following the review of Shilin (China) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. Increase the size of the Geopark to extend outside of the World Heritage Site buffer zone to allow for less restricted sustainable development.
- 2. Further improve the Stone Forest karst museum to make it more visitor friendly and increase the visibility of the Geopark. It is also recommended to include more information on the fossils of the Geopark.
- 3. Provide information on the prohibition of touching fossils on relevant information panels and use protective measures at all fossil sites to prevent damage.
- 4. Produce a unified map for the entire Geopark area for the general visitor.
- 5. Produce a simplified geological map for the entire Geopark to help visitors understand the diverse features and landscape.
- 6. Better visibility should be provided outside of the main scenic areas as well as the identification of key sites that could have interpretation and information.
- 7. The use of technical language on all interpretation should be reduced and easy to understand material should be developed for the general public.
- 8. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products. Recognition of Geopark partners should be obtained by providing Geopark plaques.
- 9. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 10. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

#### 134. **Songshan** (China)

Following the review of Songshan (China) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. Ensure that all of the Songshan Geopark is promoted equally and with the same quality criteria applied to the entire area.
- 2. Develop specific Geopark training for the professional Geopark guides and stakeholder on the local geological heritage, natural heritage, cultural material and intangible heritage like on the Geopark concept and Songshan Geopark policies.
- 3. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 4. More integration should be made with the historical and intangible heritage of the Geopark including an inventory of these sites and their relationship with the geological heritage of the area.
- 5. The Geopark should provide more information on geohazards and climate change to raise awareness and understanding of the impacts of these, all of which are clearly demonstrated within the area.

- 6. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 7. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# 135. Vikos Aoos (Greece)

Vikos Aoos was last revalidated in 2014 and received a yellow card. Following the review of Vikos Aoos (Greece) revalidation report, the UGGpC decided to award a green card with the following recommendations:

- A few technical aspects should be taken into consideration in the future: The new exhibitions are perfectly designed, but would be even more informative, if some interactive elements, exhibits like rock samples, physical models or other hands-onexhibits could be added.
- 2. Visitor surveys should be carried out to assess the need for signposting on new geotrails.
- 3. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 4. There should be an integrated corporate identity with the forest service to avoid confusion and to increase visibility.
- 5. Visibility of the Geopark should be improved to include consistent branding throughout and the improvement of the Geopark website, better road signage, better promotional material, and emphasize the connection between geology and other aspects of heritage.
- 6. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 7. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

#### 136. Wangwushan-Deimaishan (China)

Following the review of Wangwushan-Deimaishan (China) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. Extend the cooperation of volunteers and universities and apply this on an international level as an example to other Geoparks from across the world.
- 2. The use of technical language on all interpretation should be reduced and easy to understand material should be developed for the general public, including the use of illustrations and other images, and material specifically developed for children.
- 3. Better integration of the geological and the non-geological heritage should be developed.
- 4. A clear partnership strategy should be developed with partners to include a coherent methodology on the criteria required to become a partner and a formal agreement with the Geopark. This is applicable to but not restricted to accommodation and catering providers, transport providers, activity providers and producers of local products.
- 5. A specific section for geotourism should be developed within the Geopark management authority.
- 6. Visibility of the Geopark should be improved logo to include consistent branding throughout and the improvement of the Geopark website, better road signage, better

- promotional material, and emphasize the connection between geology and other aspects of heritage.
- 7. The correct use of the UGGp logo should be adhered to.
- 8. Geopark guides should have an increased geological knowledge and would be more internationally appealing if there were more English speaking guides.
- 9. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 10. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

#### 137. **Yuntaishan** (China)

Following the review of Yuntaishan (China) revalidation report, the UGGpC decided to award a **green card** with the following recommendations:

- 1. Improve the popular maps of the Geopark so that visitors and tourists can locate themselves and clearly navigate to key sites such as points of interest and accommodation.
- 2. Produce a number of thematic maps such as geology and driving routes and make them available to cover the entire Geopark area.
- 3. Make available the excellent work carried out on the carrying capacity and the impacts of the Geopark to other territories from around the world
- 4. The use of technical language on all interpretation should be reduced and easy to understand material should be developed for the general public, including the use of illustrations and other images, and material specifically developed for children.
- 5. Seek to establish an educational programme and geoscience school programme for high level students at the new Educational Center and Museum as well. The Educational Center and Museum is not just for children, or daily tourists, but could be used as a research station, geosciences school, or teach cultural classes for upper level local students, university students, masters level students, or educated adults that are doing cultural or scientific research inside the Geopark or in the surrounding communities.
- 6. Better integration of the geological and the non-geological heritage should be developed.
- 7. Strengthen the networking with other UNESCO Global Geoparks at a regional, national and global level, and actively contribute to international conferences and meetings on UNESCO Global Geoparks.
- 8. Strengthen the role of women in senior management positions within the Geopark staff, in accordance with UNESCO principles.

# **VIII. UNESCO Global Geoparks Council report**

138. The process that followed the UGGpC meeting was outlined; a report is to be prepared by the UGGpC Rapporteur, which is then circulated to the members of the UGGpC Bureau. This will be done by 17<sup>th</sup> October, for approval by the rest of the UGGpC by 23<sup>rd</sup> October. The final report will then be translated into French as soon as possible.

#### IX. UNESCO Global Geoparks Bureau report

139. The necessary documentation is to be prepared with the UNESCO Secretariat for the Executive Board of UNESCO (April 2017) in order for it to be able to provide a final endorsement of new UNESCO Global Geoparks nominations and extensions based on decisions of the Council.

- 140. A joint coordination meeting is to be held with the IGCP Board from 20<sup>th</sup> to 22<sup>nd</sup> February, which the UGGpC Bureau may need to attend.
- 141. Any meetings of the UGGpC Bureau should also be recorded and reported on for circulation to UGGpC members, to the Member States and Associate Member States of UNESCO.

# X. Any other business

- 142. A discussion was held on the publicity of all decisions made at the UGGpC meeting. Once the report is made available, all Member States will know of the recommendations. The decisions (evaluations and revalidations) will be circulated to all Permanent Delegations at UNESCO and Geopark territories once the report is made available.
- 143. To increase the visibility of the UGGpC, the members will be announced at the opening ceremony of the 7<sup>th</sup> International Conference on UNESCO Global Geoparks.
- 144. The announcement of yellow cards for revalidations will be done in person by UGGp Bureau members where possible.
- 145. The UGGp Council acknowledged the significant contribution that Lesvos UNESCO Global Geopark has made in assisting the refugees that have arrived on Lesvos Island and the substantial impact they have made on peacebuilding in the region through this activity.