

An Overview: Special Issue on “Geoparks and Regional Development”

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Geoparks are sites of geoheritage with scientific value, having characteristics such as unique landscapes or landforms, and they operate under the guidelines of the Global Geoparks Network supported by UNESCO. Geoparks aim to conserve and preserve geological heritage and provide means of teaching geoscientific disciplines, while at the same time contributing to sustainable regional development and promotion (Anonymous, 2010). This special issue focus on various aspects of regional development with discussions on community involvement in geoparks conservation, preservation, educational aspects, and integration into sustainable development. Geotourism and geotours based on geological resources of geosites are the main attractions of geoparks.

Basic frameworks of geotourism are about conserving the Earth's scientific resources while using them for research and educational purposes, and finally integrating these resources into sustainable regional development (Dowling and Newsome, 2005). Therefore, the need for a sustainable management system for geoparks arises within community involvement. On the other hand, it is important to convey the natural and cultural heritage related to regional landscapes and landforms to visi-

tors and tourists based on conservation, research, and education (Dowling and Newsome, 2010). Further, geoparks comprise diverse resources of ecological, natural historic, economic, and cultural value for geotourism, and play a key role in regional development (Newsome and Dowling, 2010).

This issue contains ten papers and four pages of the frontispiece that identify the relationships between geoparks and local communities. The main discussions in the literature focus on the following areas:

- The concept of geopark and geotourism
- Geotourism based on regional diversity
- Geotourism's managerial dimensions and its current contribution to regional development.

Watanabe (2011) reviews the concept and the background of global geoparks and Japanese geoparks. The basic concept of geoparks is about conserving natural heritage from human activities, while at the same time using natural heritage to achieve sustainable development. Therefore, promoting geotourism is essential in this process. Geotourism can become a new source of income for local communities, and enhance their identity and pride, resulting in an expansion of local people's consciousness about

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the conservation of geoheritage. Further, Watanabe (2011) emphasizes the need for scientific research on regional natural and cultural assets, and also for educational programs for local people, in order to achieve success in geotourism. As educational materials, it is essential to have facilities such as museums, visitor centers, and trails, as well as systems such as guides, pamphlets, and guidebooks.

Kikuchi and Arima (2011) investigate the managerial dimensions of geoparks with case studies of National Parks and geoparks in Australia. Australia's geotourism is carried out in large spaces and shows strong links between geosites and other regional resources. Other regional resources include those of historical, industrial, and cultural value in a region. Therefore, geotourism in Australia extends beyond the geosites and connects with various other resources of the region, which in turn contribute to the stability of local economies.

Koizumi (2011) also focuses on the linkage between geotourism and regional resources, especially the potential of geo-ecotourism as a special type of geotourism in regional and human resource development. In this paper, geo-ecotourism is defined as a combination of "geo" (landforms and geology) and "eco" (ecosystems such as vegetation distribution, wildlife, and cultural landscape), highlighting the relativity between geosites and other regional resources. Therefore, it is important to have comprehensive human resource development related to a geoparks' guides and guidebooks based on geological, geographical, and ecological approaches. The process of human development in geoparks enhances local people's knowledge of nature and a spirit of hospitality towards visitors, which enables regional promotion from tourism.

Kohmoto (2011) further reveals geotourism

as a combination of "geo" and "eco", and specifies the implementation of geotourism based on the concept of regional diversity. Regional diversity includes three elements: biodiversity, cultural diversity, and geodiversity. The author discusses promoting geotourism as a means of experiencing and admiring the richness of regional diversity. Consequently, geotourism broadens participants' perspectives of the world and potential for regional development.

The main factor behind geotourism's success is community involvement. In Amano *et al.* (2011), the role of the regional community, especially the role of local universities in the implementation of geoparks, is discussed. In this paper, a geopark is one project in which academics and regional revitalization are bound together as there is strong cooperation between local universities and local communities. Research outcomes and scientific information from universities contribute to developing educational disciplines, improving local people's knowledge, nurturing training guides, and creating guidebooks and materials about geoparks. Geoparks need to have solid management plans that can foster regional development, and geotourism or geotours should emerge as a tourism business. Universities have the role of creating close links among industries, management/politics, education, communities, and economies of their regions.

On the other hand, Mokudai (2011) points out nature conservation as the key concept within geopark activities and discusses how conservational goals can be achieved with the involvement of researchers. This paper identifies the lack of discussions on geodiversity conservation, and reveals the need for detailed inventories of important landforms and geological features with conservational values in Japan. These inventories enable scientific discussion

of geopark establishment and conservational dimensions. Identifying natural areas with conservational value also helps to initiate proactive and positive community involvement in geopark activities such as geotourism, which is ultimately related to regional development.

This issue also includes reports on the current status of regional development from geotourism in various geoparks. In the frontispiece, there are introductions to geosites of Australia's Kanawinka geopark and Japan's Unzen volcanic area geopark and Itoigawa geopark. The common factor of these geoparks is that they have geostories related to each geosite and regional resources such as local history, culture, and traditions that can be explained to participants of geotourism. Even though it is not a geopark, the introduction to geotourism based on limestone and karst landforms on the Okinawa Islands also helps to achieve an understanding of the structure of geostories.

Takenouchi (2011) studies the relationship between conservational and educational activities in a global geopark called Itoigawa geopark, focusing on changes in local people's attitudes and activities after the designation of the region as a global geopark. Recognition as a global geopark increased the Itoigawa residents' awareness of the global value of their region and their motivation to support geopark activities. The geosite of Itoigawa geopark lies in the city of Itoigawa. However, it has been contributing to the regional development of many other mountainous villages in the region as well. As a result, the local people's involvement by providing various ideas and actions to create a new community in the region is outstanding.

Ohno (2011) investigates the status of tourism promotion and its sustainability in the Unzen Volcanic Area Geopark, a different global

geopark from the previously explained Itoigawa geopark. Geotourism or geotours and related geostories are the keys connecting geoparks to sustainable tourism and promoting regional development. Geostories organize expert knowledge related to landforms and landscape with local history, culture, and traditions. It is important to present these stories to the residents and tourists in an understandable manner. Therefore, training guides in geoparks are a major factor for successfully achieving regional promotion. Further, there should be good educational programs and facilities to support the development of good guides. In particular, there is a need for geotour content for primary schools, in order to gain their involvement in geoparks' educational activities.

Thus, regional development generated by geoparks depends on designing geostories for geotourism and geotours and training guides to interpret those geostories. With this background, Ogata (2011) designs some model geotours for the Ryukyu Islands. The key to geostory design is to observe the regional landscape with an understanding of specialized and scientific facts about geodiversity. In particular, training guides and interpreters is of vital importance in geotourism because many geostories contain scientific interpretations.

Sawada *et al.* (2011) conducted a questionnaire survey of nature guides in Hokkaido to study how to design geotours that target local residents. Geotour guides are expected to have ideas to increase the satisfaction of participants. Some suggestions for guides to improve their interpretation include using pictures or figures to support explanations and avoiding technical terms in their explanations. It is also important to create stories that are relevant to all the geosites in the tour. Guidebooks should use easily understandable bird's-eye view maps

and add a scale of geological age and a glossary of technical terms.

All the papers in this issue show the existence strong links between communities and geoparks originating from geotourism or geotours. These kinds of geotourism or geotours with stories related to geosites and regional resources make regional development a reality.

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