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Applicant UNESCO Global Geopark

Jeonbuk West Coast, Republic of Korea

Geographical and geological summary

Location of the Jeonbuk West Coast aUGGp, Republic of Korea



● Aspiring UNESCO Global Geopark

Boundary of the Jeonbuk West Coast aUGGp, Jeollabuk-do Province, Republic of Korea



1. Physical and human geography

The Jeonbuk West Coast Aspiring Geopark (aUGGp) is located in the midwestern part of the Korean Peninsula and is 250 km away from Seoul, Republic of Korea. The geographical coordinates of the aUGGp are 35.812039~35.301613°N, 126.088672~126.838977°E (in decimal degree). The aUGGp has an area of 1892.5 sq km (land area 1150.1 sq km, sea area 742.4 sq km) with a population of 107,594 people. The mean population density is 93.53 people per sq km excluding the marine area, but this ranges from the sparsely populated areas in the mountains to the urban centers of Gochang and Buan. Highway, many national roads and high speed railway are available to reach the aUGGp. Gochang and Buan, two counties of Jeollabuk-do Province, are within 3-hours travelling time from Incheon/Seoul International Airport.

In the northern region (Buan area), the west part is a mountain area of 200~400m altitude, and the east part is plain. In the southern region (Gochang area), ridgeline of 500-700m altitudes stretches in the southeast direction, making it an administrative boundary with adjacent county, and 100-400m altitude mountains shape the coastal line of the western region. The average temperature is 12 °C ranging from 35 °C in summer to minus 14 °C in winter with annual precipitation of 1200 mm.

The historical settlement of this area dates back to 700 AD, but prehistoric peoples also left many Bronze Age Dolmen sites in the Gochang area, which were designated as World Heritage in 2000.

The region is famous for its beautiful coast and islands including two volcanic mountains, which are part of the National and Provincial Park, respectively. A large tidal flat between Gochang and Buan, Gomsoman Bay, produces vast amounts of marine products like salts, fish, salted seafood, etc., which is the main platform to the economic prosperity in this area.

2. Geological features and geology of international significance

The Jeonbuk West Coast aUGGp has over 1.8 billion years of geological history, mainly Jurassic igneous and Cretaceous volcanic rocks including small amounts of Orosirian gneiss etc.

There are five particular highlights that should be mentioned in the aUGGp.

The volcanoes of this region still keep their key volcanic features despite of their long geological time span since the Late Cretaceous Period. As we can see the internal structures of the volcanoes, this area can be a place for the comparative analysis between Holocene and Cretaceous volcanoes.

The volcanoes of this region have the size of 20x10 km and 13x12 km, respectively, and they are a part of Cretaceous volcanic complexes of the Korean Peninsula, which is a central part of the Cretaceous volcanic complexes connecting China, Korea and Japan. Therefore, the region is one of the key areas to understand the volcanic history of the Izanagi Oceanic Plate movement underneath the Eurasian Plate.

The aUGGp shows prominent Soft Sediment Deformation Structures (SSDS) associated with volcanic activities along the coast and islands, which can be used as a comparative analysis for the area having these kinds of geological features.

The faveololithid dinosaur egg nesting site, relatively rare in Asia, is found on an island and it is considered as a halotype locality.

The Getbol, a tidal flat, of the aUGGp is included as a property of World Natural Heritage in the application dossier in 2018, and is waiting for the decision by the World Heritage Committee.