
FIRST PILOT VILLAGE GEOPARK IN GORONTALO PROVINCE

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11.1. Geopark's Pilot Village

Pilot village or is a term for villages that are empowered to become standards and examples for other villages. The term pilot village has been widely used by several groups. This is due to the rise of village empowerment programs designed by the Indonesia government. These pilot villages were then born from innovative programs that were compiled and implemented by several groups, whether it was from the local government itself, stakeholders or academics such as lecturers and students who had the opportunity to carry out village development thanks to funding programs.

Empowerment and development of village communities is one of the efforts to improve the standard of living and welfare of rural communities through the establishment of policies, activities, and programs that are in accordance with the substance of the problems and needs of the community in the village. This empowerment focuses on the process of giving or transferring some of the strength, power or ability to the village community to become more empowered. Empowerment is also a process of encouraging, stimulating or motivating individuals and groups to have the ability or empowerment to determine what their choices are.

Geopark is a concept that is currently considered as an effective way to develop regional potential. Many areas in Indonesia have been designated as geopark areas and have succeeded in realizing these goals. Geopark development is achieved through the protection of the earth's diversity (geodiversity) & environmental conservation, preservation and promotion of the earth's heritage to the general public, education and research in geology, biology, culture in general, and the growth & development of the local economy in a sustainable manner, especially through geotourism. According to Manyoe et al, (2021) geotourism is a form of nature tourism that particularly focuses on both landforms and geology.

Speaking of Geoparks, Gorontalo Province is currently in the submission phase to become a National Geopark. With so many programs, research, assessments and community empowerment related to geopark development, it is very important to start empowering potential areas in terms of geodiversity, biodiversity, and cultural diversity. This makes many stakeholders in Gorontalo Province to start implementing empowerment programs and regional-based research studies in Gorontalo.

The pioneering of Geopark Village is one of the efforts to empower Botubarani Village which was initiated by UNG Geological Engineering students and lecturers in preparing Botubarani Village as the first geopark pilot village in Gorontalo Province. UNG Geological Engineering students empower and serve in Botubarani Village through the Village Development and Empowerment Holistic Program (PHP2D) and the Village Empowerment Development Program (P3D). These two programs are funding programs by the Ministry of Education and Culture as a forum for students to empower rural communities.

The implementation of the development of Botubarani Village with the PHP2D and P3D programs will begin in mid-2020 until the end of 2021. The core of the implementation of the two programs is to support Botubarani to become one of the Geosites in the Gorontalo Geopark with several service programs, including preserving the Batu Berani geological site, developing eco-tourism. Whale Shark tourism, and empowering community groups through the development of unique souvenirs (geoproduct) and local culinary (geofood). The implementation of PHP2D and P3D activities is carried out by applying the concept of sustainable tourism and an online marketing campaign which is a tourism weapon in Botubarani Village.

11.2. The State Potential of Botubarani as the First Geopark Pilot Village of Gorontalo Province

Botubarani Village is administratively located in Kabila Bone District, Bone Bolango Regency, Gorontalo Province. The area of Botubarani Village is ± 9.65 km² with a population of 1,268 people. The total population of men is 653 people and 615 women. The people of Botubarani Village work as fishermen as many as 180 people, farmers 73 people, private workers 48 people, civil servants 10 people, TNI/POLRI 21 people, crafts 6 people and craftsmen 39 people (RPJM Desa, 2016-2020).

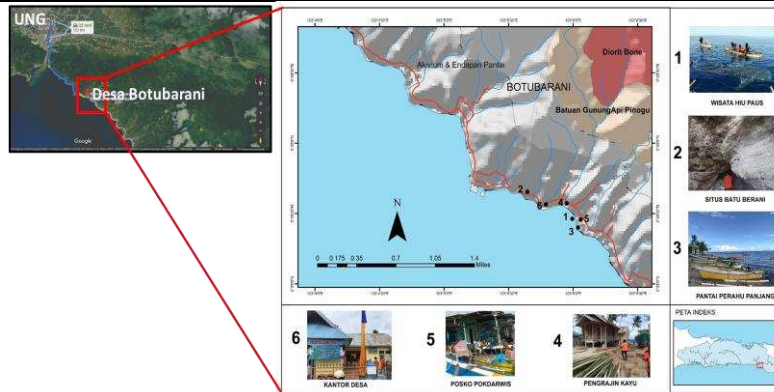


Figure 11.1. Map of the Botubarani Village and its tourism potential (Suma *et al.*, 2021).

One of the tourist attractions (DTW) in Botubarani Village which has become a village icon is the appearance of the Whale Shark (*Rhincodon typus*). The appearance of whale sharks in Botubarani Village is thought to have existed for a long time, but did not receive much attention until 2016. From several developing stories, the existence of a shrimp factory right on the coast of Botubarani Village was the reason for the appearance of whale sharks in the coastal waters of Botubarani in at the moment. The odor generated from the rest of the factory operations flowing in the sea waters is thought to influence the arrival of the Whale Shark.

In addition to the appearance of the Whale Shark which is the main tourist attraction in Botubarani Village, there are also historical village sites that have the potential to be developed into geology-based tourism or geotourism. The site is the site of the Brave Stone. By the people of Botubarani Village, it is believed that the site which is located beside the Trans Sulawesi Road, Botubarani Village has its own mythological history which is the basis for naming Botubarani Village. This made the research team and students from UNG interested in exploring more about this potential.

The existence of tourism potential that can be developed into eco-geotourism is spread in all hamlets in Botubarani Village. Botubarani Village is divided into 3 (three) hamlets, namely West Tamboo Hamlet, Central Tamboo Hamlet and East Tamboo Hamlet. Each hamlet has at least one place that is used as a spot to see whale shark tours. As for the Batu Berani site, it is located in Tamboo Barat Hamlet and not far from Whale Shark tourism, about ± 1 km from the Whale Shark tourist center area.

11.3. Botubarani Whale Shark

The appearance of the Whale Shark, or “*Munggiango Hulalo*” in the Gorontalo language, in the waters of Botubarani Village is still not widely known. Various questions regarding the southern waters of Gorontalo as a place to stop, foraging locations to the frequency of the presence of Whale Sharks have not been clear until now (Handoko, *et al.*, 2019). Various research efforts to answer these questions continue to be carried out.



Figure 11.2. The eco-tourism Whale Shark in the waters of Botubarani Village.

There are no local legends that specifically tell the existence of the Whale Shark in Gorontalo. However, some communities, especially fishermen, recognize the existence of whale sharks since time immemorial. Several fishermen said that whale sharks were often seen approaching fishing boats, especially when catching nike fish (*Awaous melancephalus*).

Whale Shark ecotourism management in Botubarani by seeking the participation of stakeholders is an ideal choice. Currently Whale Shark ecotourism has been managed by the Tourism Awareness Group (Pokdarwis). Pokdarwis in Botubarani Village play an important role in increasing

tourist visits but are currently still in the developing stage, where they still need improvement in several aspects. For example, the knowledge about tourism from each Pokdarwis management because from the results of interviews with several representatives of the management, they do not understand very well about tourism and tourism villages. So that when the interview was hampered about tourism knowledge. While understanding can increase the full involvement and role of the community when they carry out their obligations accordingly

The management, namely pokdarwis Botubarani, has planned various developments in an effort to increase tourist visits to see whale sharks and the beauty of the beaches in botubarani. The roles carried out by Pokdarwis are the management and development of tourism sites, development of human resources, addition of facilities and infrastructure, as well as promotional activities carried out in various media on the internet.

11.4. The Batu Barani Geomythological Site

Based on people's beliefs and oral culture that has been passed down from generation to generation in Botubarani Village, there is one historical place that became the basis for giving the name of this village. The place is said to be in the form of caves containing human skulls and bones.

It is said that Botubarani Village is one of the villages that is an easy target for pirates, who according to village elders are from the Philippines. The sea robbers or what the Botubarani people usually know as 'Mindanao' are very happy to invade pencil areas on the coast, one of which is Botubarani Village. A group of pirates is said to be very fond of raping and kidnapping village women to be held captive and their slaves. Not accepting this, the villagers then made a move to fight the robbers. Bloodshed ensued, resulting in many of the village's natives dying in the movement.

Ti Barani, is the name for a resident who comes from the village of Botubarani. He is a figure who is believed to have magical powers. Summoning the spirits of former citizens and pulling the boats of the robbers back to the mainland are some of his magical skills. According to the elders, it was this supernatural power that saved the villagers from being disturbed by pirates. Ti Barani and the residents finally managed to kill and drive the pirates away from the land of Botubarani Village. All the corpses from the wars of citizens and pirates were then collected and dumped in small caves in the village. Until his last breath Ti Barani was said to have been buried together with other bodies in these small caves. This is what causes the village, which is rich in ecological potential, to be called the Botubarani Village



Figure 11.4. The geomythological site of Batu Barani

Armed with surveys and in-depth interviews with the community, traditional stakeholders and village officials, the PHP2D and P3D teams carried out several programs to dig deeper into the village's historic sites that could potentially be developed into geomythological sites. Excavation and searching for bones in the site area was carried out by the PHP2D team and accompanied by several villagers. Excavations and searches for these bones then yielded results, namely the discovery of several parts of the bones that had been separated. Some bones can be identified directly the parts and some are damaged or not intact. There is a need for identification and further historical and archaeological research related to the discoveries found at the Batu Berani Site.



Figure 11.4. Implementation of Batu Berani Site Conservation by the PHP2D team (Suma *et al.*, 2021)

Thanks to the PHP2D program, the Batu Berani geomythological site has now become a village heritage and is being conserved in order to protect the customs and culture of the Botubarani Village community. Installation of conservation fences, information boards, QR Codes and site signs are some of the several PHP2D and P3D programs carried out.

11.5. Geoproduct as a Support for the Botubarani Village's Creative Economy

Natural tourism destinations or geoparks generally never stand alone relying on nature. The attraction of geoparks is not just selling landscape views and tourists are expected to be quite satisfied with observing them. However, natural attractions are often combined with other tourist attractions in the form of special interest tourist attractions to increase the selling value of tourist activities.



Figure 11.5. Photo of Geoproduct initiated by the UNG Geological Engineering PHP2D group.



Figure 11.6. The new geoproduct variation from the community group of Botubarani.

11.6. Community Groups as a receptacle for Gorontalo Geopark Development in Botubarani Village

In the implementation of village empowerment to prepare Botubarani Village as a geopark pilot village in Gorontalo Province, it is necessary to provide guidance and mentoring to community groups in Botubarani Village. The community groups currently being guided and fostered by the PHP2D and P3D groups in Botubarani Village are 4 groups, including POKDARWIS (Tourism Awareness Group), Karang Taruna (Youth Forum), PKK (Women's Group) and student groups of school children.

The guidance carried out by the PHP2D and P3D groups focused on the community's understanding of the potential of village tourism, tourism management with the concept of sustainable tourism and the application of online marketing campaigns as a means of digital village promotion and understanding related to geoparks. Some of these programs help the community groups of Botubarani Village to be more progressive in the tourism sector.

In the Karang Taruna community group, guidance on the geotourism potential of Botubarani Village was carried out. In managing the Batu Berani geotourism site, the Karang Taruna group plays a major role in exploring the potential of the site and how to preserve it as a valuable village asset. Youth empowerment in conserving geotourism assets at the Batu Berani site begins with cleaning the Batu Berani site, providing mentoring on the importance of geotourism, training in maintaining tourism infrastructure, online marketing campaign management and training to become a tour guide at the Batu Berani site.



Figure 11.7. Youth Organization Empowerment in Botubarani Village

In the Tourism Awareness Group or POKDARWIS, the guidance is carried out by focusing on the management of Whale Shark tourism. Technology-based tourism management training was carried out to POKDARWIS with the aim that Whale Shark tourism managers could adapt to the times. The training on making geoproduct souvenirs with whale shark motifs was also carried out as a means of developing the potential of the creative economy in Botubarani Village.

The PKK women's group is empowered in the P3D program as a wheel for local culinary tourism in Botubarani Village. Empowerment of PKK women through training in making local Gorontalo culinary specialties is carried out with the aim of providing opportunities for village women to get decent jobs and play a role in the economic development of Botubarani Village.

In addition to the productive age group, school children are also targeted in the implementation of the P3D program. Socialization and education to children regarding the potential of village tourism and geoparks from an early age is very necessary. The formation of tourism awareness from an early age can have a positive impact on the sustainability of tourism in Botubarani Village, especially Whale Shark Tourism and Batu Berani Site. Empowerment of schoolchildren groups is carried out with intensive guidance through the Geokids Care program, where elementary school students are guided to write interesting stories as well as impressions and messages related to Botubarani Village and Tourism in the village. The stories from these children will then be compiled to become a book of experiences and will become a collection of inspirational stories that can inspire thousands of other children.

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Glosarium

Geofood	: Sub-Program of the P3D created to support the entrepreneurship of the community's local and traditional culinary.
Geokids Care	: Sub-Program of the P3D created for Botubarani children to understand the concept of Geopark and how important it is for tourism sustainability.
P3D	: Continuation program of the PHP2D funded by Ministry of Education, Culture, Research and Technology.
PHP2D	: Village development and empowerment program funded by Ministry of Education, Culture, Research and Technology.
POKDARWIS	: Tourism Awareness Group.

Biography



Born on July 9, 2000, and raised in Gorontalo City, Danial is an active 7th-semester student of the Geological Engineering study program, Universitas Negeri Gorontalo. In 2019, Danial, as a member of the team, successfully passed the funding for the Student Creativity Program for Research (PKM-PE) by the Ministry of Research, Technology and Higher Education (Kemenristekdikti) with the program title "4D Geology and Radar Image Analysis for the development of the science-tourism flood village, Ilotidea". In the PKM program, Danial as co-author with the team leader and one of his fellow members published one monograph book with ISBN and two national research journals. In 2020, Danial as group leader along with 12 other members successfully passed the Village Development and Empowerment Holistic Program (PHP2D) and becoming Top 20 National Best Team. This program is funded directly by the Ministry of Education and Culture (Kemendikbud) and is implemented for 5 months in Botubarani Village, Bone Bolango Regency. PHP2D chaired by Danial was selected as the 20 Best National Team. In the same year, Danial participated in the Indonesian Archipelago Student Exchange Program-Credit Transfer System with Information Technology (PERMATA-SAKTI) at the Institut Teknologi Sepuluh Nopember of Technology and the virtual International Credit Transfer (TKI) program at Ehime University, Japan online for one semester.

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Born in Limboto, Gorontalo. Intan holds a bachelor's degree in Geophysics and a master's degree in Geological Engineering from Hasanuddin University. Intan is a lecturer in the Geological Engineering major, Universitas Negeri Gorontalo and Head of the Geological Engineering Laboratory. The main focus of his research is renewable energy/geothermal, geotourism, geophysics and geological hazard.

Intan participated in a young lecturer apprenticeship program carried out by the Directorate General of Higher Education at Universitas Gadjah Mada in 2009. She participated in geothermal trainings conducted by the Ministry of Energy and Mineral Resources, UGM, ITB, Utrecht University, The Netherlands Organization for Applied Scientific Research and Geothermal Capacity Building Indonesia-Netherland in 2017. She joined in international collaborative research in the field of eco-geotourism with the Research Institute for Humanity and Nature, Kyoto, Japan and joined in geothermal scientific writing with lecturers at the Institute Technology of Petronas (ITP), Malaysia.

Intan received several awards, including a certificate of commendations from three Japanese professors; Dean of FMIPA, Rector of UNG; Directorate General of Higher Education; and the President of the Republic of Indonesia. Communication with Intan via email intan.manyoe@ung.ac.id or website www.intanmanyoe.com.