

Storytelling

BELITONG

UNESCO GLOBAL GEOPARK

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MINISTRY OF TOURISM AND CREATIVE ECONOMY / TOURISM AND CREATIVE ECONOMY AGENCY
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FOREWORD



Peace be upon you, and Allah's mercy and blessings,
Best wishes to all of us,

Indonesia is a tropical country with a distinctive and diverse geological structure, making it a unique geological natural laboratory. There are at least 110 geological heritage sites in this country, and become the capital developed as a geological tourism destination. In fact, of these, 14 (fourteen) are national geoparks, with 6 (six) of them being international geoparks registered in the UNESCO Global Geopark (UGGp), namely: 1) Ciletuh, 2) Rinjani-Lombok, 3) Gunung Sewu, 4) Batur, 5) Toba, and 6) Belitong.

Recognition of Belitung as a UNESCO Global Geopark certainly needs to be supported by efforts that lead to the development of quality tourism. Therefore, the Directorate of Special Interest Tourism, Deputy for Tourism Products and Activities (Events), and the Ministry of Tourism and Creative Economy/Tourism and Creative Economy Agency of the Republic of Indonesia designed the activities for compiling narratives in a storytelling scheme or known as storytelling.

The purpose of compiling the book Storytelling Belitong UNESCO Global Geopark is to produce guidelines for improving the skills of tour guides in supporting the development of geopark, particularly interest tourism. In addition, storytelling is also a strategic step to improve the tourist experience (experiential tourism) to build quality tourism in line with efforts to strengthen local wisdom values and introduce them more broadly to current and future generations.

This storytelling book is compiled in two languages (Indonesian and English) with a simple delivery pattern with harmony between narrative and context. The narrative, which is the basis for the development of storytelling books, can be used by stakeholders and tourism industry policies on Belitung Island to provide added value for tourist attractions economically through the aspect of attractions to extend the length of stay of tourists. In this way, Earth tourism products on Belitung Island will be more attractive to offer a more optimal travel experience for unique interest tourists.

Storytelling plays a vital role in strengthening the development of tourist destinations. The key lies in the detail and uniqueness of the narrative content at each destination supported by relevant interpretation and storytelling media, such as the use of performance media, the flexibility of the tour guides to present dramatic situations, and storytelling using attractive audio-visual media. With a comprehensive storytelling concept, tourists are invited to feel the uniqueness that can only be felt by direct experience.

This storytelling book contains selected narratives covering 7 of 24 geosites in Belitong Global Geopark (UGGp), namely: 1) Tanjung Kelayang, 2) Peramun Hill, 3) Juru Seberang, 4) Open Pit Nam Salu, 5) Burong Mandi, 6) Mendanau Islands, and 7) Buku Limau Village. It is hoped that this will be the first step to contextualizing natural and cultural heritage through the development of narratives and storytelling on Belitung Island, which of course, can continue to be developed in the future. I hope that the narrative formulation in this storytelling book can provide the broadest possible benefits to encourage the preservation of nature and culture and support the development of quality and sustainable special interest earth tourism on Belitung Island.

Salam Lestari,
Wonderful Indonesia!

Electronically signed by
Deputy of Tourism Product and
Event Organizing

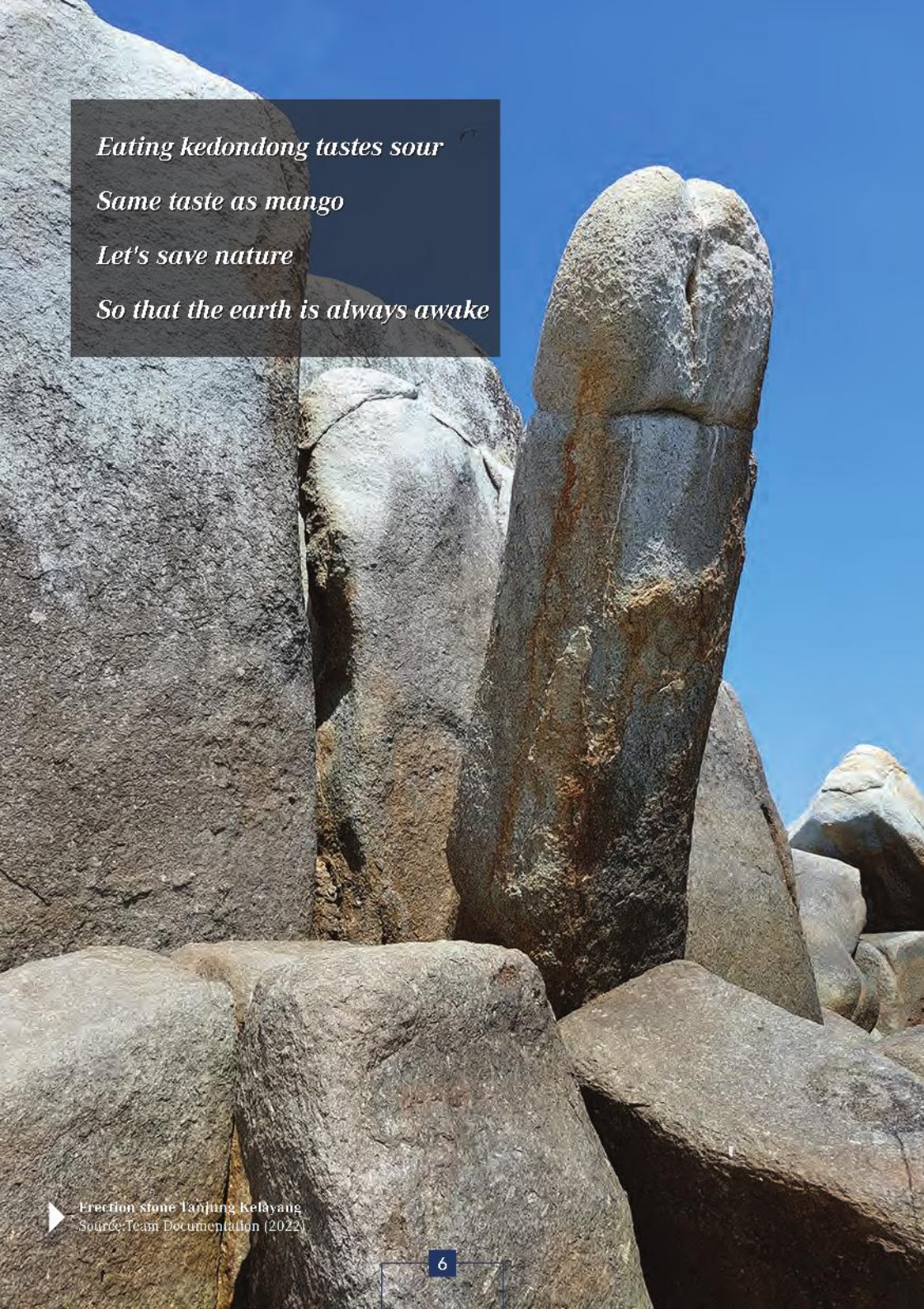
Ir. Rizki Handayani Mustafa, MBTM

Eating kedondong tastes sour

Same taste as mango

Let's save nature

So that the earth is always awake



Erection stone Tanjung Kelayang
Source:Team Documentation (2022)

HISTORY OF **BELITONG**



Map of Belitong Island During Dutch Colony
Source: Leiden University Library (2022)

The name Belitong has been mentioned since 1815 by the Dutch East Indies government. This is confirmed from a book entitled *Herinneringen aan Blitong: historisch, lithologisch, mineralogisch, geographisch, geologisch en mijnbourkundig* written by Cornelis de Groot in 1887. In history, there have been those who call Belitong with *Beleiton, Billeton, Billitongh, Biliton, Biltong, Bliton,* and *Belitoeng.*



***Satam* Stone (Billitonite)**
Source:Team Documentation (2022)

The name of Belitong arises from the title of a unique rock in Indonesia that is only found on Belitong Island, namely Billitonite (Belitung tektite). Billitonite comes from the words "bile" and "stone" to describe small rocks of black color like bile. The rare tektite type rock (meteor fragments) was formed as a result of an impact between meteor rocks and the earth's land about 709-770 thousand years ago.

Billitonite was first discovered by tin miners from China, so the local people call Billitonite by the name of *satam* stone. In Hakka Chinese, the word "*sa-tam*" means sand bile that is small in size. *Satam* stone is one of the elements that later made Belitong Island a world geological heritage.

BELITONG **TIN ISLAND**

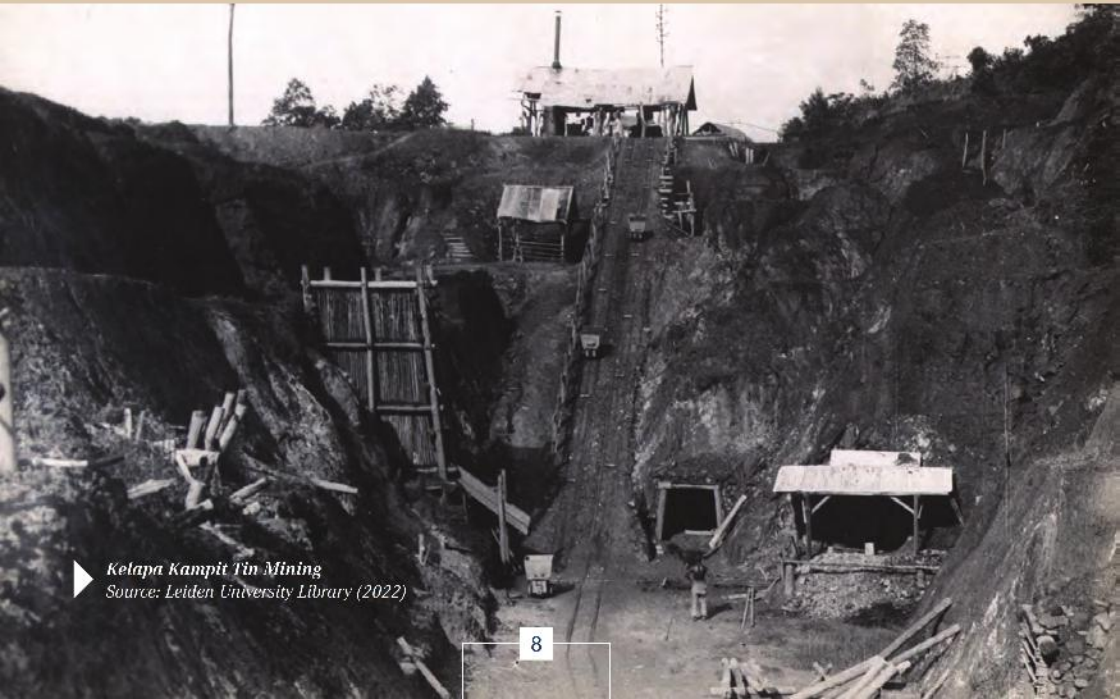
Belitong became an island with stretches of granite rocks scattered throughout the island. The alluvial tin content on the island forms a society of tin miners that dates back to 1851. Tin mining starts from small-scale to large-scale, from traditional to modern mines, from stone quarrying to underground mining with open pits.

There are two types of tin in Belitong. The primary type of tin is in the form of a boulder and the secondary tin is in the form of lead sand. Primary tin production used advanced technology in its day and left historical evidence of stoven buildings (chimney towers) of lead ore-burning furnaces underground.



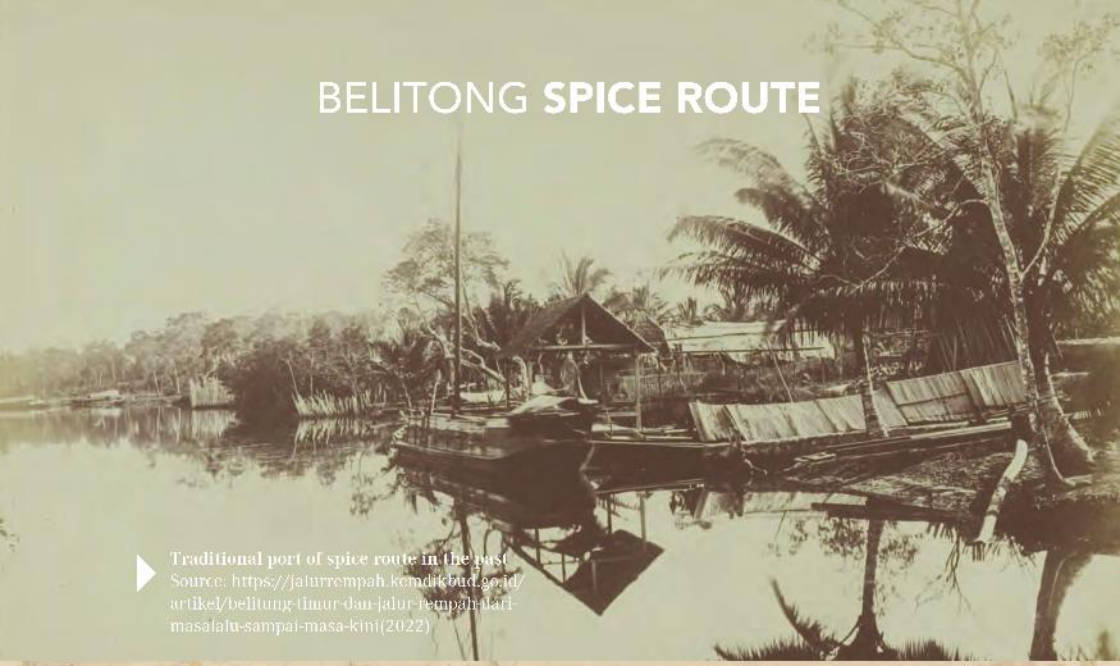
Tin mine workers in Belitong during the Dutch colonial period
Source: Leiden University Library (2022)

Tin mining in Belitong has set a milestone in Indonesia's mining history. Tin mining became the deepest underground mine in the tin industry. In the past, mining activities have supported local communities and attracted the arrival of Chinese workers as tin mine workers.



Kelapa Kampit Tin Mining
Source: Leiden University Library (2022)

BELITONG **SPICE ROUTE**



Traditional port of spice route in the past
Source: https://jalurrempah.kemdikbud.go.id/artikel/belitung-timur-dan-jalur-rempah-dari-masalalu-sampai-masa-kini(2022)

The presence of the Dutch people who claimed to have invented tin and founded the mining company Belitung Airlines (Billiton Maatschappij) in 1860, was not the first moment for Belitong to connect with the outside world. Since centuries ago, the Bangka Belitung Islands have become part of an international maritime trade route that we popularly call the Spice Route.

Belitong itself is located exactly between the North Natuna Sea (directly adjacent to the South China Sea) and the Java Sea. Both waters were traversed by traders from China, Gujarat, Arabia, Persia, and Europe thousands of years ago. Meanwhile, the presence of the Gaspar Strait and Karimata Strait as well as Sumatra and Kalimantan on both sides, confirms the virtues of Belitong as a stopover or meeting point.

Evidence that shows the strategic role of Belitong, is the presence of wrecks of merchant ships in the waters. Various traces of the kingdoms also confirm the findings of international relations and trade. The threat of pirates (lanun) as well as extreme water conditions, became the cause of the shipwreck of merchant ships. Belitong was once the talk of the world in 1998, when local fishermen discovered the Tang Shipwreck) which was predicted to be the world's largest treasure find. The ship, loaded with more than 63 thousand valuables: ceramics, silver, gold, urns, and spices, was wrecked after sailing from Africa to China around 830 AD.

GEOLOGY DIVERSITY OF **BELITONG ISLAND**

Source: Geological Map of the Belitung Sheet, Sumatera by Baharudin dan Sidarto, 1995

Alluvial & Beach Deposits(Qa)
Quaternary Period - Holocene Epoch
Age 10.000 year - now
Juru Seberang Geosite
Buku Limau Geosite

Carbonaceous Sand (Qpk)
Quaternary Period - Pliestocene Epoch
Age 1.7 m.y. - 10.000 year

Batu Besi Quartz Diorite (Kbd)
Cretaceous Period
Age 115 - 160 m.y.

Burungmandi Granodiorite (Kbg)
Cretaceous Period
Age 115 - 160 m.y.
Burung Mandi Geosite

Baginda Adamellite (Jma)
Jurassic Period
Age 160 - 208 m.y.

Tanjungpandan Granite (Trtg)
Triassic Period
Age 208 - 245 m.y.
Tanjung Kelayang Geosite
Bukit Peramun Geosite

Siantu Formation (PCsv)
Permian Carbonaferous Period
Age 245 - 300 m.y.

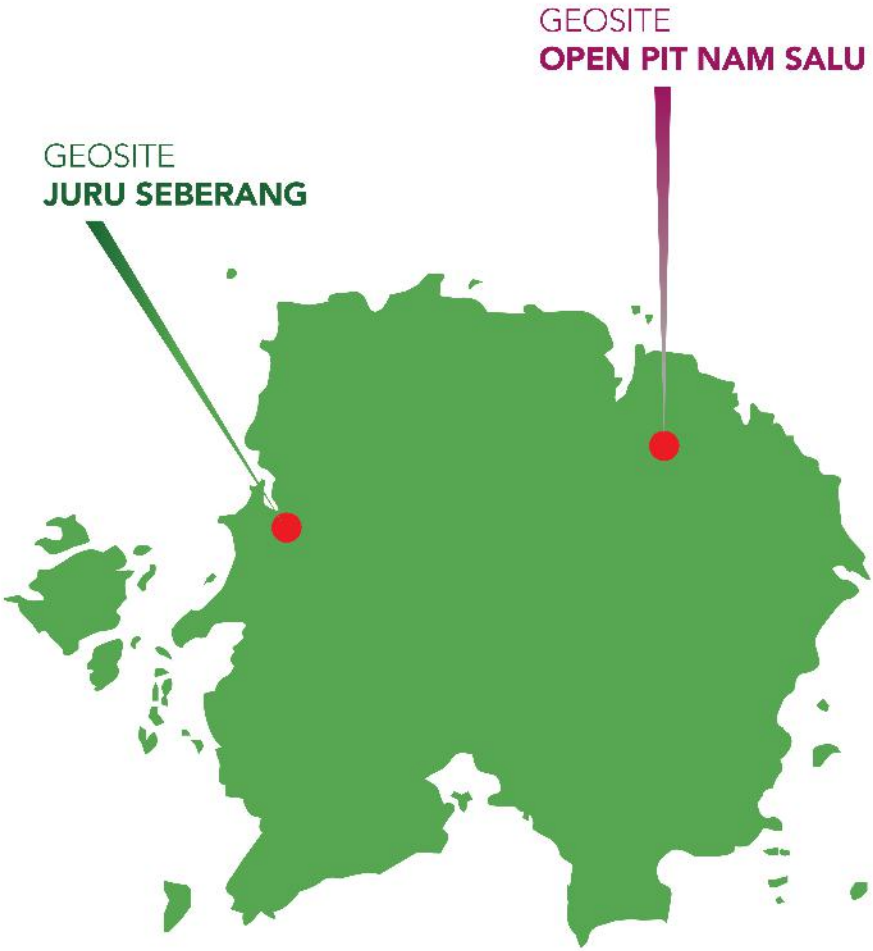
Tajam Formation (PCTm)
Permian Carbonaferous Period
Age 245 - 300 m.y.
Kepulauan Mendanau Geosite

KelapaKampit Formation (PCKs)
Permian Carbonaferous Period
Age 245 - 300 m.y.
Open Pit Nam Salu Geosite
Kepulauan Mendanau Geosite

TRANSFORMATION

EX-QUARY

INTO GREEN ECONOMY


GEOSITE
OPEN PIT NAM SALU
GEOSITE
JURU SEBERANG

Tin mining in Belitung in the past left thousands of hectares of former mining land. Some are in the form of heaps and mounds of tailings sand. As a result of mining, many lands become nutrient-poor, leaving behind, causing environmental damage, and becoming difficult to be used.

Tourism opens up opportunities for the use of former mining land. Tourism is able to transform environmental damage into a green economy through sustainable tourism. The former mining land has its own tourist attraction.

The gaping holes in the Juru Seberang Geosite were rehabilitated through the planting of tens of thousands of mangrove seedlings and other trees, thus becoming a favorite edu-ecotourism destination in Belitung. Meanwhile, the crater with turquoise water in nam Salu's Open Pit Geosite, offers historical tours of tin mining and adventure tourism, such as cave walks.

Juru Seberang area
Source:Team Documentation (2022)





Juru Seberang coast
Source:Team Documentation (2022)

KULONG
JURU SEBERANG

This geosite is located in the estuary area of the Cerucuk River, about 5 km from Tanjungpandan City. The rocks are composed of alluvial results from weathering of Tanjungpandan Granite rocks (Type S Granite) and metasedimentary rocks of Kelapa Kampit Formation. The alluvial is estimated to be two million years old.

Juru Seberang Geosite spans an area of 757 hectares of coastal land. Initially, 70 percent of the area consisted of ponds of former tin and sand mines, while 30 percent were peat and swamps. Now, mangroves have enveloped 154 hectares of area. In the next 5-10 years, the community is targeting additional 150 hectares of mangrove area, 160 hectares of inland forest, and 100 hectares of water for coral reef transplantation.

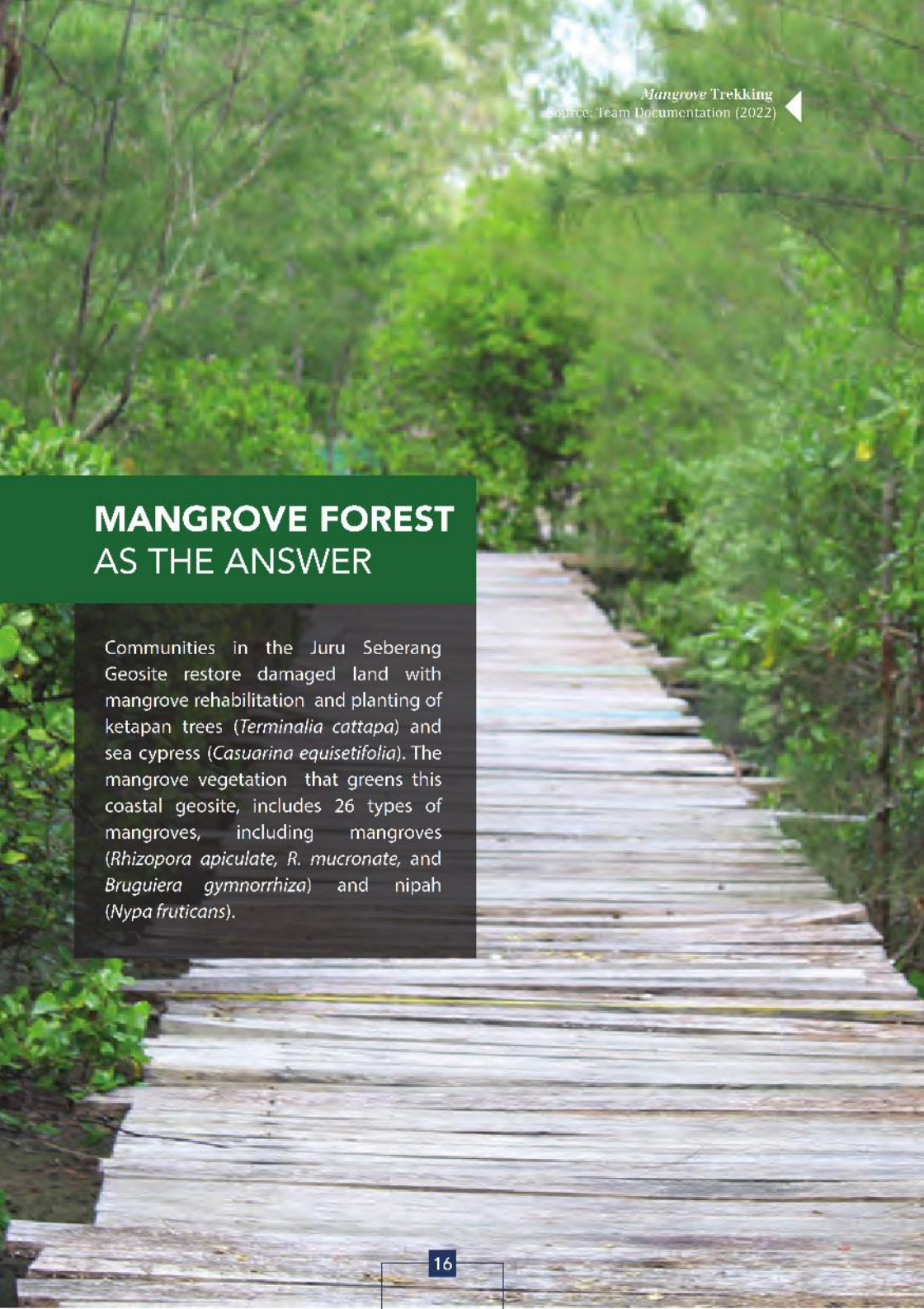
In the local language, *kulong* is a basin area of former tin mining filled with water. *Kulong* has potential that can be developed further based on their respective characteristics. Water in *kulong* is safe when it is more than 20 years old. By then, harmful heavy metals as substances in water should have already disappeared. *Kulong* can also be used for fish cultivation and tourism activities, such as fishing, recreation, and so on.

***Kulong* Juru Seberang**
Source: Team Documentation (2022)



Sand pile in Juru Seberang
Source: Team Documentation (2022)





Mangrove Trekking
Source: Team Documentation (2022)

MANGROVE FOREST AS THE ANSWER

Communities in the Juru Seberang Geosite restore damaged land with mangrove rehabilitation and planting of ketapan trees (*Terminalia cattapa*) and sea cypress (*Casuarina equisetifolia*). The mangrove vegetation that greens this coastal geosite, includes 26 types of mangroves, including mangroves (*Rhizopora apiculate, R. mucronate,* and *Bruguiera gymnorrhiza*) and nipah (*Nypa fruticans*).

Mangrove forest in Juru Seberang
Source: Team Documentation (2022)

The existence of mangrove forests is a solution to the problem of marine, coastal, and terrestrial ecosystems in the Juru Seberang Geosite which stores four times more blue carbon stocks than tropical forests. Mangrove forests are part of climate change mitigation and adaptation, including preventing erosion.



Sea Fir
Source: Team Documentation (2022)



Mangrove ecosystems provide habitat for a variety of animals, aquatic biota, and organisms, such as primates, reptiles, fish, shrimp, crabs, shellfish, and birds. Birds that can be found include ashy tailor-bird (*Orthotomus ruficeps*), Malaysian pied fantail (*Rhipidura javanica*), white-throated kingfisher (*Halcyon smyrnensis*), brown-throated sunbird (*Anthreptes malaccensis*), olive-backed sunbird (*Nectarinia jugularis*), and white-bellied sea eagle (*Haliaeetus leucogaster*).



Mangrove Seeds Juru Seberang
Source: Team Documentation (2022)

SIMANGCO

When mining activities ceased in 2013, the Juru Seberang community did not stand still. They formed the Seberang Bersatu Community Forestry and carried out beach rehabilitation as well as mangrove planting activities that also employed local residents.

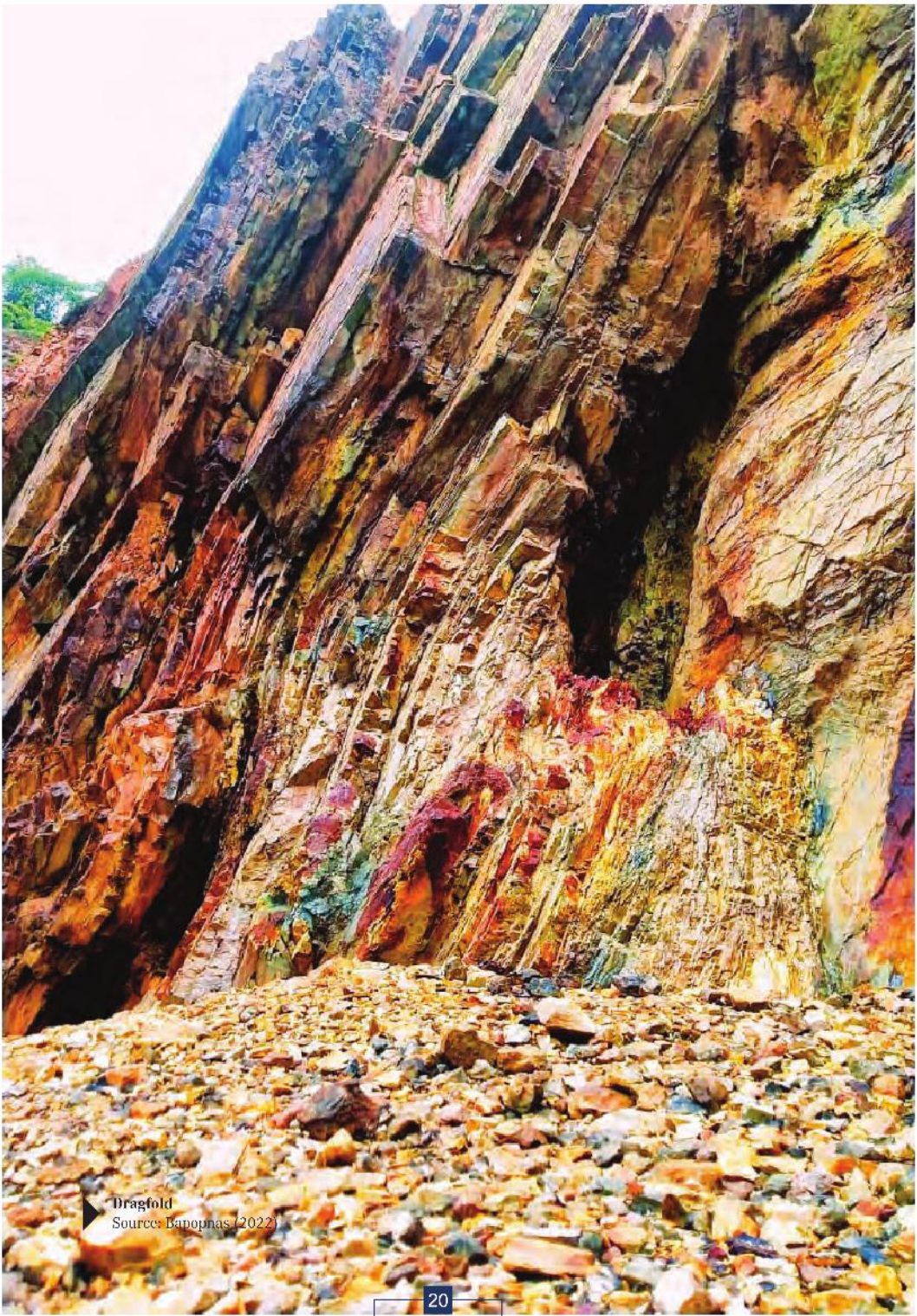
Juru Seberang is a village inhabited by the Laut Indigenous Peoples (Sawang), the Malays, and the Buginese. Most of them depend on their livelihoods as fishermen. Coastal culture is inherent in the daily lives of residents.

Starting from beach cleanup activities, now the Juru Seberang community is the vanguard for mangrove conservation, crab cultivation, milkfish ponds, coral reef transplantation, and edu-ecotourism development. Through conservation and tourism activities, the local community also recalls the myth about Simangco. The huge monkey-like figure is said to live in the mangrove forest.

Environmentalists from the Seberang Bersatu Community Forestry recounted that old people used to often say, "Don't play (and damage) in *bako* (mangrove forest) because there is Simangco!" Now, the name is used as an abbreviation for the Mangrove and Coral Donation Program (Simangco).



Simangco House
Source: Team Documentation (2022)



Dragfold
Source: Bapopnas (2022)

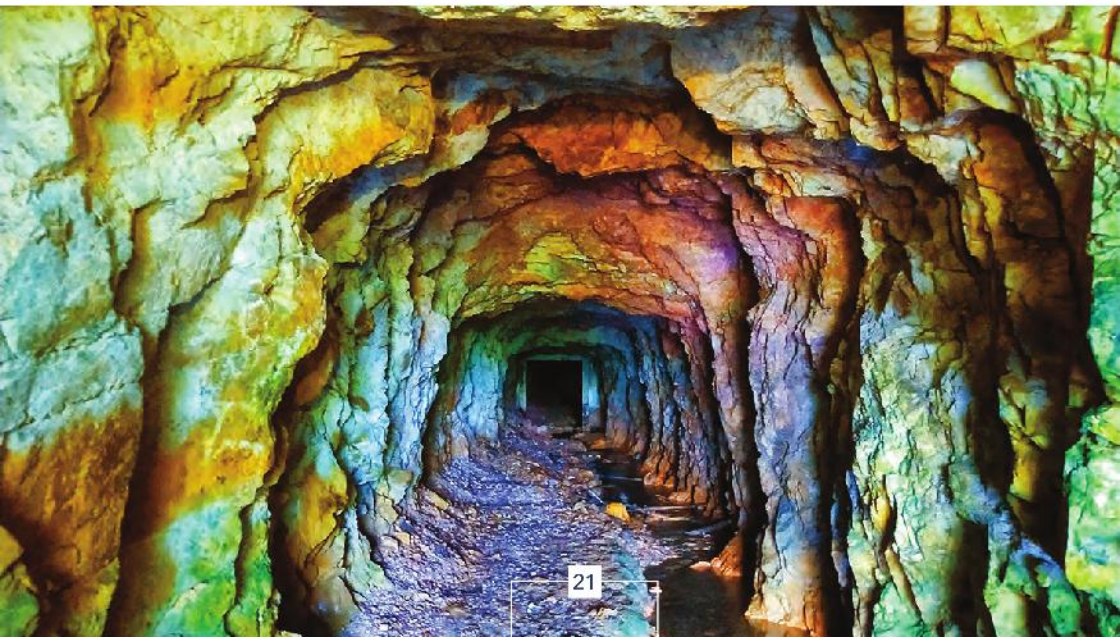
HISTORY OF **OLD MINING**

Nam Salu Open Pit is a special geosite because it presents the oldest rock outcrops that dominate Belitung Island as well as geological structures. It was exposed due to the existence of the largest open pit tin mining in Southeast Asia. The rock displays geological wealth in the form of a layer of flysch metasedimentary (sandstone fragments from marine deposits) from Kelapa Kampit Formation is aged about 300 million years old (Carbon Permo). The formation was rich in lead with exposed geological structures, including drug folds.

There are 12 *adit* (tin mine tunnels) in Nam Salu Open Pit. The tunnel consists of 9 levels on the east side and 4 levels on the west side which are 30-40 meters between levels with a total depth of 350 meters. One of the adits was built in 1908 and is known as Fuk Salu which means western tin line. Fuk Salu is now in the Container Park Area of Open Pit Nam Salu Geosite.

The tin mine trail also conferred the stoven building, which is a chimney tower from a tin ore kiln. The tin is still a wet concentrate, so it requires a dry roasting process. The stoven was built in 1928 along with the construction of other major projects, such as the Pice Dam and the housing complex of tin mine officials.

Mining Tunnel in Nam Salu Open Pit
Source: Team Documentation (2022)





***Nepenthes rafflesiana* on the cliff of Nam Salu Open Pit**
Source: Team Documentation (2022)

LAND OF **NEPENTHES**

The uniqueness of this geosite are a stretch of *kantong semar* (*Nepenthes* sp.) grows on the walls of Nam Salu Open Pit. This carnivorous plant is an endemic to tropical countries that only grows in certain places. The plant with the local name *kemidokan* or *ketakong* is able to live in land that is poor in nutrients and acids, including former mines.

The unique structure of the body of nepenthes which is pouch-shaped, useful for catching insects. In it, there is a liquid of digesting enzymes that local people believe can treat young children who are still wetting the bed.

Nepenthes reindwartiana, Nepenthes gracilis, Nepenthes rafflesiana, and *Nepenthes ampullaria* are four types of nepenthes that grow in the Open Pit Nam Salu Geosite. *Nepenthes reindwartiana* can be recognized by two "eye spots" on the inner surface of its pouch. Currently, nepenthes is an inspiration for Belitong batik pattern.



Nepenthes pattern applied on Belitong batiks
Source: Team Documentation (2022)

Nepenthes reindwartiana
Source: Team Documentation (2022)





Kelapa Kampit temple
Source: Team Documentation (2022)

OLD TIN MINING SETTLEMENT

Belitong culture is inseparable from the settlement of Chinese people who have existed and mingled for centuries past along with the traces of tin mining. There were many of them who were originally brought in as mine workers, but some were merchants.

According to the annals, there were two thousand immigrants of Chinese origin who were brought in 1865. That number doubled in 1872. At its peak, there were about 29 thousand people in 1920, where almost half of the population in Belitung was colored by workers from China. At that time, the Chinese miners on Belitung Island were known as assiduous people.

Nam Salu Open Pit, later developed and grew with a thick Chinese complexion. Kelapa Kampit Temple, which is the center of spiritual and artistic-cultural activities of the surrounding community, is located not far from the geosite. Various *peranakan* culinary delights are found in the market opposite the temple, ranging from noodles, seafoods, crackers, to cakes of various shapes and flavors. The community around the Nam Salu Open Pit Geosite also has a distinctive beverage in the form of *serpit* drink (a combination of lemongrass and spices) and sweet potato chips.

Special pots for coffee making
Source: Team Documentation (2022)





Tanjung Kelayang Areal
Source: Team Documentation (2022)

ANCIENT GRANITES

IN THE SEA AND LAND

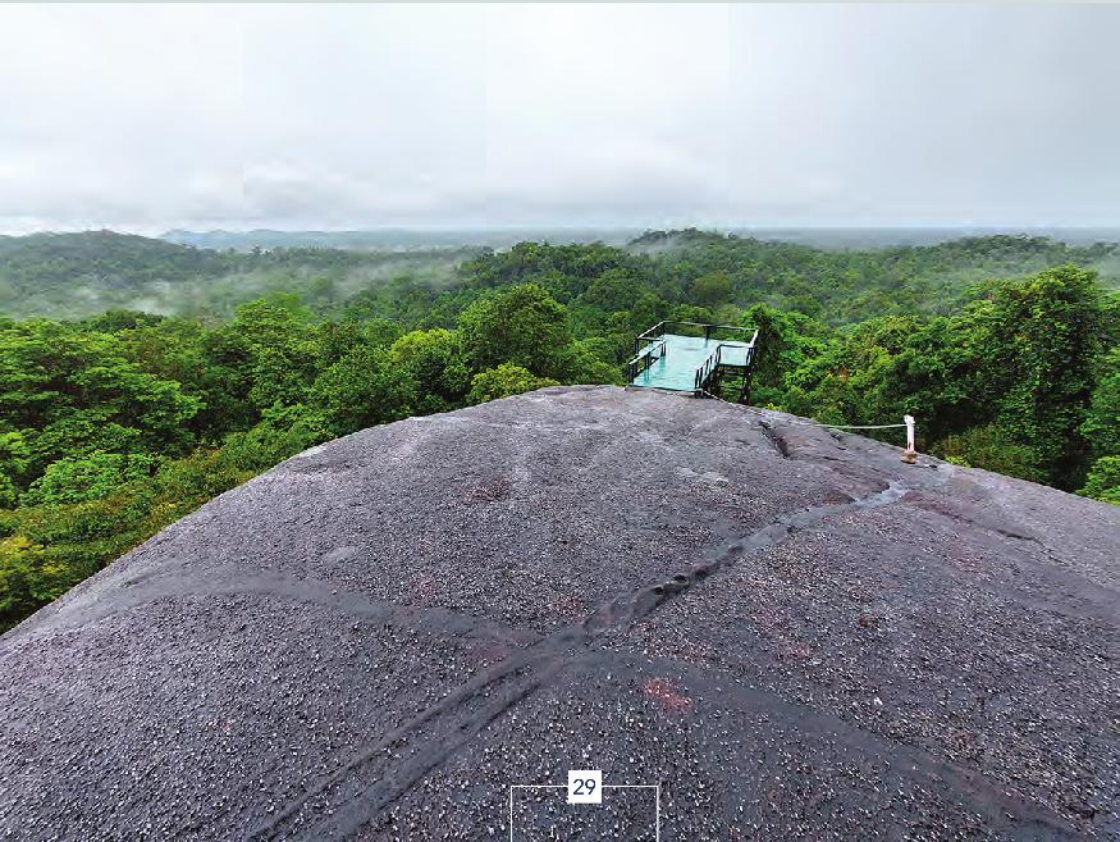

GEOSITE
TANJUNG KELAYANG
GEOSITE
BUKIT PERAMUN

Belitung Island is surrounded by more than 200 small islands. The landscape in the form of ancient granite called *tor* (rock formation), became characteristic of the seascapes and landforms of this island. The ancient granite of the ocean and land became the main attraction and story in Tanjung Kelayang Geosite and Bukit Peramun Geosite.

Tanjung Kelayang granite was formed since the Triassic period (245-208 million years ago). The morphology of this ocean *tor* offers different views of the nautical nature on the surface and under the sea.

Bukit Peramun is a geosite that has granite hills that are overgrown with an abundance of trees and various efficacious herbal plants. The forest here houses the Belitong tarsier (*Cephalopachus bancanus saltator*), one of the smallest primates in the world.

Bukit Peramun areal
Source: Team Documentation (2022)





Triassic Granite of Kelayang Island
Source: Team Documentation (2022)

ANCIENT GRANITES IN THE SEA



Bird's head resemble granite
Source: Team Documentation (2022)

The granite rocks scattered on the coast, waters and small islands in Tanjung Kelayang Geosite belong to the "S" type of granite, as a result of the process of overhauling the earth's face caused by endogenous energy from the earth. This process created the formation of unique granite chunks and can be found on most of the coast of Belitong island.

The appearance of this granite boulder begins with the freezing of magma beneath the earth's surface. These rocks then undergo tectonic processes such as lifting, some undergoing stiffening and hatching. During the lifting process, there were also a process of cracks experienced by granite stones or called deformation.

Once it appears, granite rocks will also undergo a weathering process and erosion or abrasion eroding them for thousands to millions of years. Later they will look like separate stones. In fact, this piece of stone is only part of the upper part of the body of a very large granite stone below the surface of the earth.



Belayar stone
Source: Team Documentation (2022)



Hatchlings conservation
Source: Team Documentation (2022)

LIFE IN **ANCIENT GRANITES**

Granite rocks on the sea are a home of coral reefs such as, *Sidesratra sidereal* and dinner table look alike the *Acropora Hyacinthus*. Pieces of granite are covered by soft corals, including *Sinularia, Sarcophyton, Capnella* and *Alcyoniidae*. Aquatic biota are found, such as *Nudibranchia,* sea worms *(Spirobranchus giganteus*), seahorses (*Hippocampus,* sp.), starfish (*Asteroidea*) including feather stars (*Crinoidea*). They mostly live on coral reefs. When doing islands hoping by boat, the 'Nemo' clownfish *(Amphiprion ocellaris)* and endangered large green turtles (*Chelonia mydas*) may welcome the tourists.

In this geosite, it can also be found white-bellied sea eagle (*Haliaeetus leucogaster*), black-shouldered kite (*Elanus caeruleus*), brahminy kite (*Haliartus indus*), lesser coucal (*Centropus bengalensis*), glossy swiftlet (*Collocalia esculenta*), and cattle egret (*Bubulcus ibis*). Large granite rocks turned out to be a habitat for vesper bat (*Pipistrellus vordermanni*) who slept in the alley of the high rise rocks during the day and went out foraging towards sunset. At dusk, there are often attractions of brahminy kites hunting vesper bat.

White Bat
Source: https://kumparan.com/banthayoid/upaya-konservasi kelelawar kalong putih di gorontalo 1sKKDxLdcBU/full (2022)





Bondol Eagle
Source: https://babel.antaranews.com/berita/73848/konservasi elang bondol (2022)



Selamat Kampong
Source: Team Documentation (2022)

THE STORY OF **ANCIENT GRANITES**

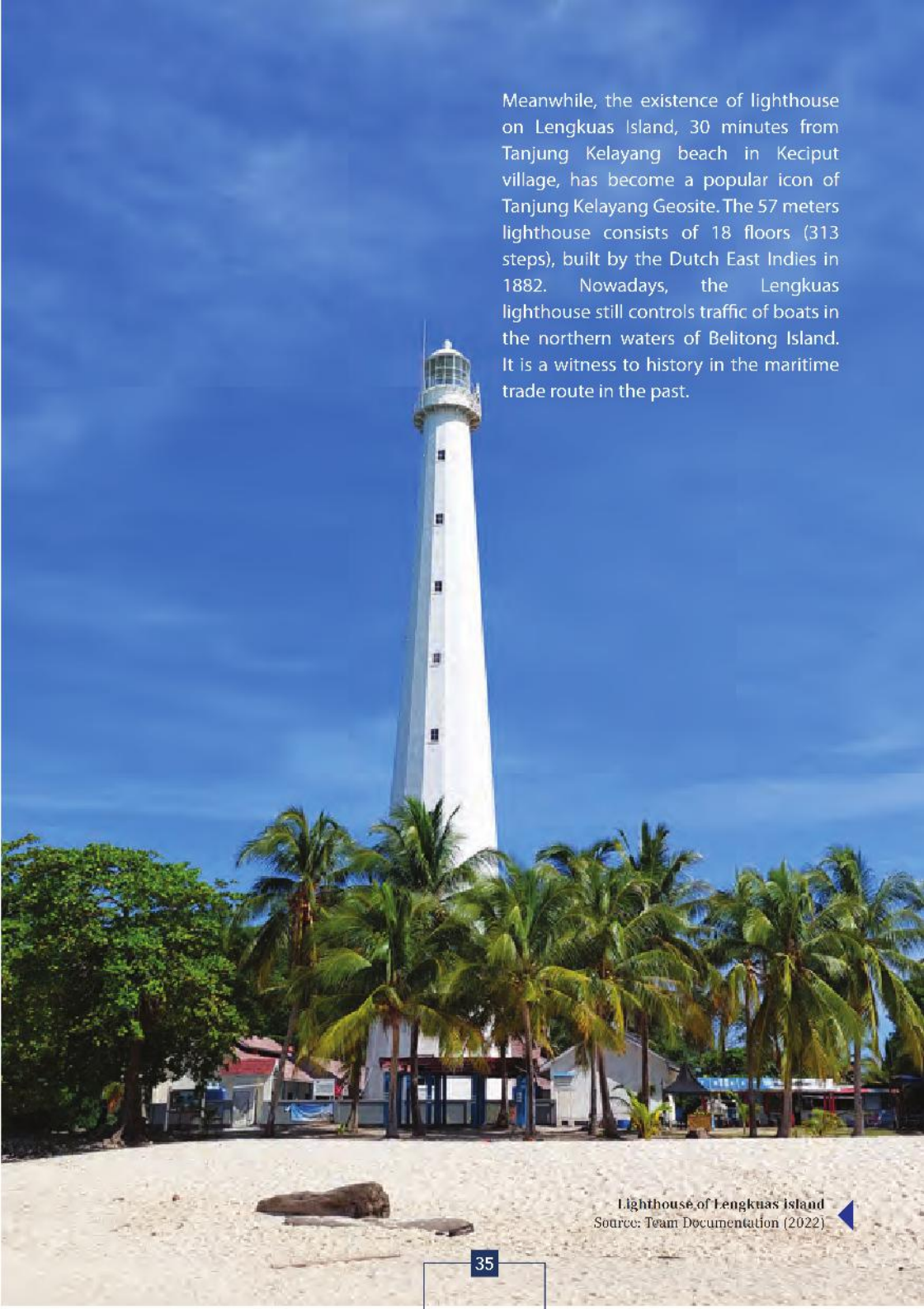
In the coastal area of Tanjung Kelayang Geosite, community of Keciput village have cultural privileges that are connected to the legends and myths of granite stones. Each island or a set of stones has a name and a story.

Keciput village has a *Selamat Kampong* ritual in the month of Syawal and Maulid as well as a *Selamat Laut* (*Muang Jong*) every October 10th. At *Selamat Kampong*, people from all settlements gathered, pray together and get entreaty water (*kesalan*). The ritual leader (kampong elder/*Kik Dukun*) will conduct water tints (*cucur air*) at the border of the village as a symbol of territory. Meanwhile, *Muang Jong*, is interpreted as a ceremony of disaster circumvention. In this ritual, people carry offerings placed in miniature traditional ships (*jong*) and release them on sea.

Muang Jong
Source: Team Documentation (2022)



Meanwhile, the existence of lighthouse on Lengkuas Island, 30 minutes from Tanjung Kelayang beach in Keciput village, has become a popular icon of Tanjung Kelayang Geosite. The 57 meters lighthouse consists of 18 floors (313 steps), built by the Dutch East Indies in 1882. Nowadays, the Lengkuas lighthouse still controls traffic of boats in the northern waters of Belitong Island. It is a witness to history in the maritime trade route in the past.



Lighthouse of Lengkuas Island
Source: Team Documentation (2022)



Twin rock of Bukit Peramun
Source: Team Documentation (2022)

THE TWINNIES

Bukit Peramun Geosite covers an area of 115 hectares, composed of Tanjung-pandan Granite which contains quartz, feldspar alkali, mica, hornblende (amphibole), and biotite from the Triassic Period. The granite rocks formed a hill of 129 meters above sea level and the highest point in northwestern Belitong. At the top of Peramun Hill, there is a *tor* landscape called twin stones. People believe that stones in Bukit Peramun Geosite have positive energy that is able to restore the stamina of the body.



Tanjungpandan Granite
Source: Team Documentation (2022)

GRANITE FOREST

Forest stretches over granite rocks provide a decent habitat for the smallest primates in the world: the Belitong tarsier. His/her body weight ranges from 100-150 grams with a length of 12-15 cm. His/her large eyes and tail, which are twice the length of his/her body, make him/her an unique animal.

Granite Forest
Source: Team Documentation (2022)



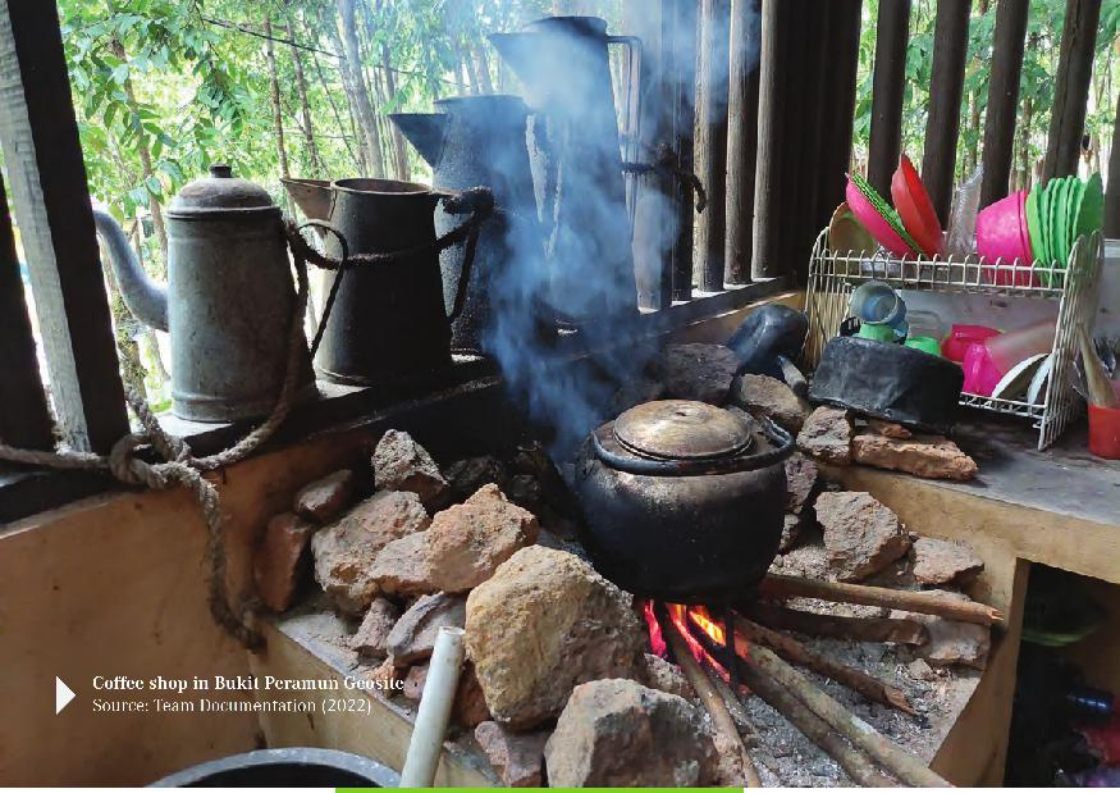


Belitong tarsier
Source: Team Documentation (2022)

Belitong tarsiers or known by local people as *pelile'an*, are loyal animals because they only have one life partner (monogamous). These insectivores catch insects by jumping around the trees' hollows.

Cephalopachus bancanus saltator is an endemic sub-species as it is only found in Belitong. Currently, these animals are included in the category of vulnerable to extinction since their populations tend to decline. Efforts to maintain the Bukit Peramun Geosite ecosystem are steps to maintain the survival of the belitong tarsiers.

Forest ecosystems on granite rocks provide many types of plants of medicinal potential, among them *pasak bumi* or Malaysian gingseng (*Eurycomalongifolia*), *jemang* or silverbat (*Rhodamnia cinerea*), *betor belulang* (*Calophyllum lanigerum*), and *berangan duri* or oil nut tree (*Calophyllum inermis*).



Coffee shop in Bukit Peramun Geosite
Source: Team Documentation (2022)

THE **PRAMOEN**

The history of Bukit Peramun Geosite can be traced from its name, *pramoen*. The ancestors of the surrounding community were known as compounder of herbal medication. Greatly, that tradition still exist until now.

Other said that, during the colonial period, lots of recusant on the run from colonizer, hiding in between villages, inside the granite cave in Bukit Peramun. They were survived by consuming fruit crops and cultivating the medicines in their own grown forest.

The fertile soil in Bukit Peramun is a good land to plant various healthful endemic plants. One of them is the *pasak bumi* (longjack) which is popularly believed to be an aphrodisiac. Generally, a combination of eurycoma longifolia and other spices serve as a coffee blend.

Digital Forest
Source: Team Documentation (2022)

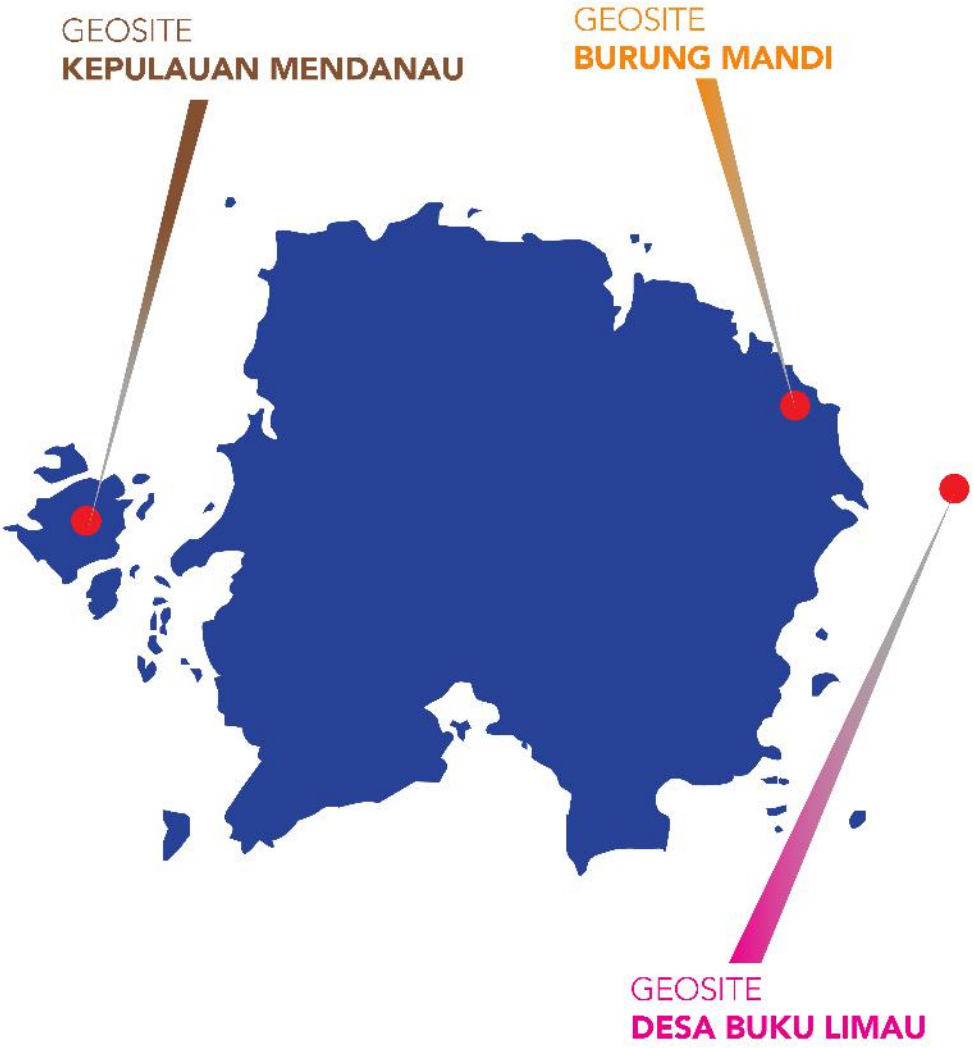




Bird-shape Craft on Kater
Source: Team Documentation (2022)

WONDERFUL

ISLANDS GEOSITE


GEOSITE
KEPULAUAN MENDANAU
GEOSITE
BURUNG MANDI
GEOSITE
DESA BUKU LIMAU



Tugs boats on Suak Gual
Source: Team Documentation (2022)

Belitong island is not only rich in geological potential and biodiversity, but also acculturation of Malay, Chinese, Buginese, and others cultures. The conservation of sea turtles and coral reefs by coastal communities become part of culture tradition, along with the creativity of local as an alternation of creative economy in small islands. Those both are the métier of Burung Mandi Geosite, Mendanau Islands Geosite, and Buku Limau Village Geosite.

Burung Mandi Geosite offers the youngest clusters of granite rocks with fine grains and dark colors due to its containment. The stretch of white sand on Burung Mandi beach is an excellence attration of this geosite.

Mendanau Islands Geosite was formed due to geological activities that caused the vast Kelapakampit Formation under the sea to be lifted, giving rise to a unique rock wall. The people in the Mendanau archipelago communities that make use of sustainable economic nature.

Buku Limau Village Geosite offers a panoramic combination of beaches and coral reefs that are a place to live a variety of colorful coral fish and turtles. Buku Limau has a typology of coastal villages that make a living as fishermen.

Buku Limau
Source: Disbudpar Beltim (2021)



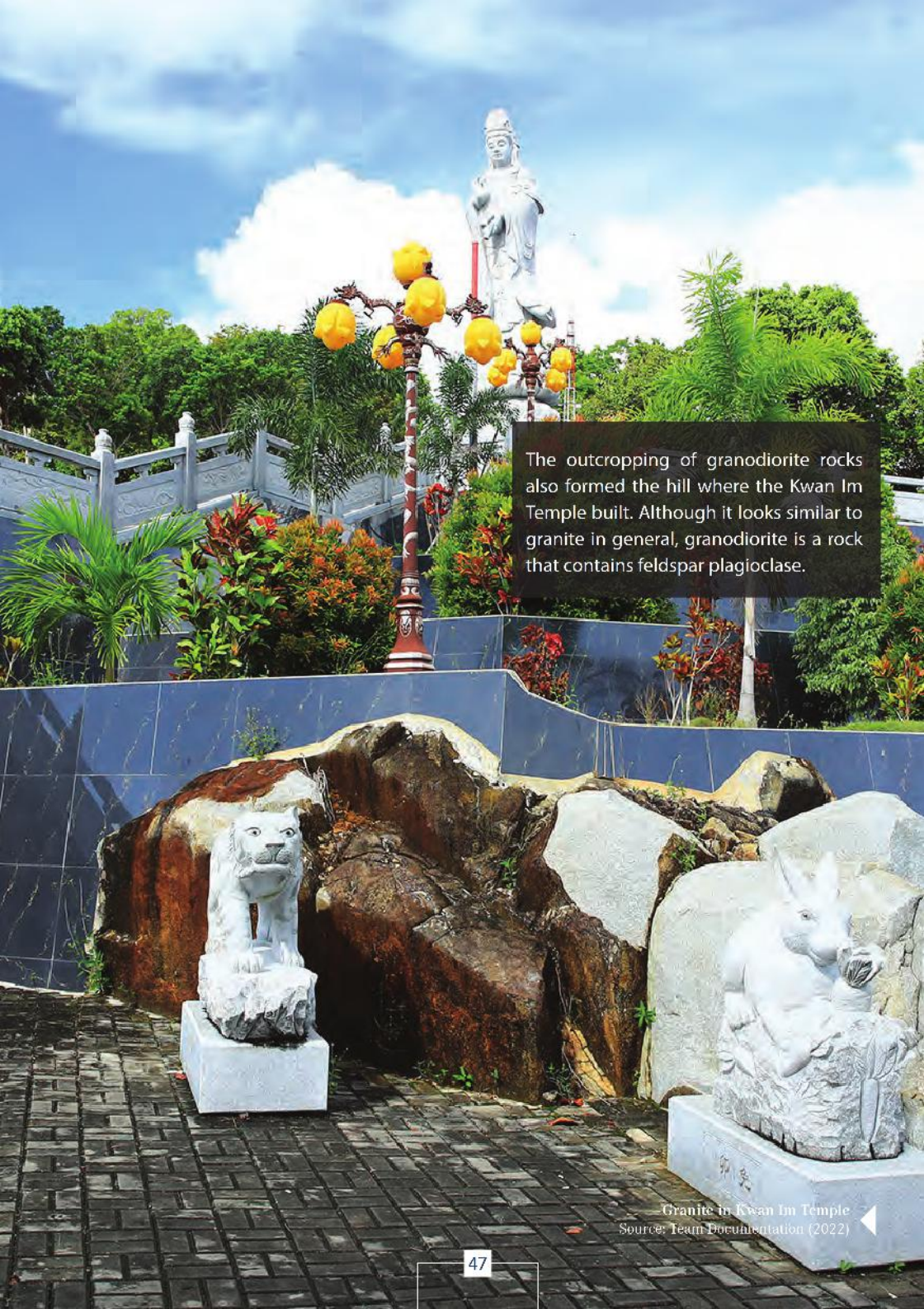


Burung Mandi Granodiorite
Source: Team Documentation (2022)

POST-**JURASSIC** GRANITE

The geological formations in Burung Mandi Geosite are granite intrusions dated 115-180 million years ago known as Burung Mandi Granodiorite, with light green rock characteristics and sparkling crystals. The granite includes type "I" granite which is formed from the freezing of magma (igneous source) and is scattered around Burung Mandi hill and Malang Lepau beach.

In the south of Burung Mandi Beach, there is an outcrop of granodiorite rocks, as result of a process of earth's face overhaul (denudation) by exogenous forces that changed the shape of granite on the surface as it appears today.



The outcropping of granodiorite rocks also formed the hill where the Kwan Im Temple built. Although it looks similar to granite in general, granodiorite is a rock that contains feldspar plagioclase.

Granite in Kwan Im Temple
Source: Team Documentation (2022)

COASTAL **ECOSYSTEM**

The *kerisi* or rosy snapper (*Pristipomoides filamentosus*) is a main resource represent the name of the geosite. Typical *kater* boats ease fishermen to find *kerisi* fish, apart from the usually catches such as, mackerel. At low tide, there will be many *kimpang* (*Lambis lambis*), octopus, and fur clams (*Anadara antiquata*) found on the beach. The activities of the residents looking for *kimpang* (*ngimpang*), octopus (*ngerita'*), and fur clams have even become a tradition of the people of Burung Mandi Village.



Kerisi fish
Source: Disbudpar Belitim (2021)

The interesting thing about Burung Mandi Geosite is the character of its ecosystem which is a combination of lowland forests and coastal forests. The best woody tree, namely Bornean ironwood (*Eusideroxylon zwageri*), is still found in the forest ecosystems of the hill. Sandy coastal soils is suitable to grow tropical fruit trees, such as durian, rambutan, *kuini* or horse mango, and *kemang* or white mango.



Bornean ironwood tree
Source: Team Documentation (2022)



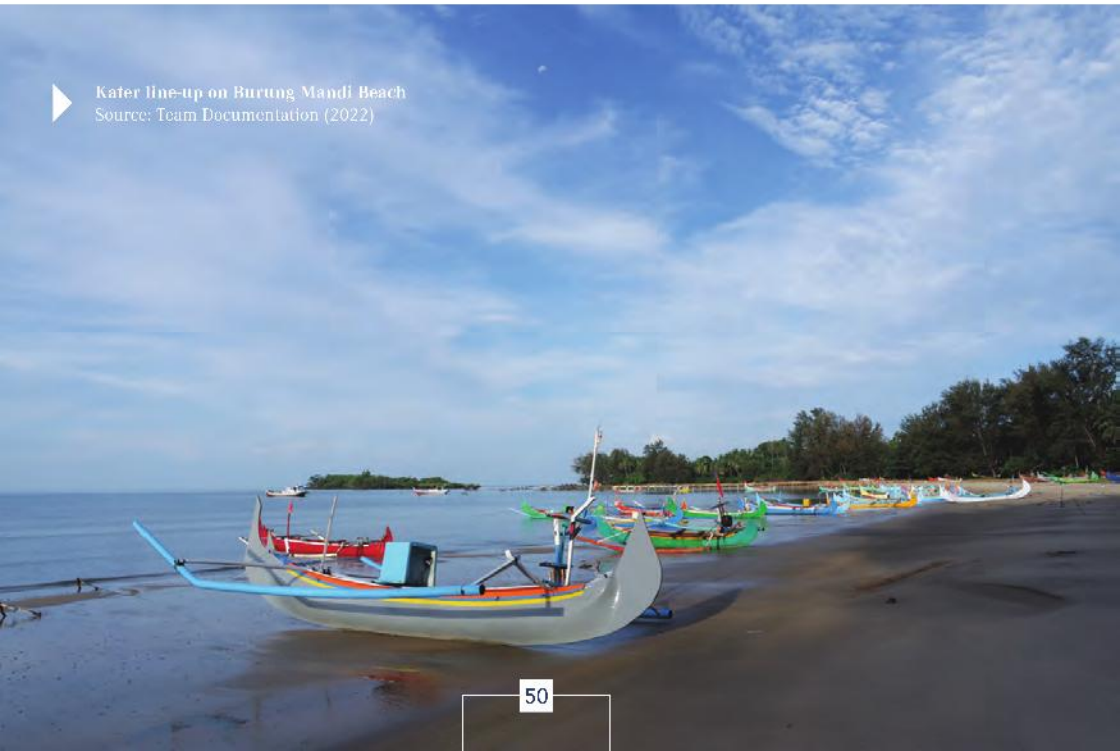
Pied imperial pigeon (*Ducula bicolor*)
Source: Team Documentation (2022)

This geosite is a migration route for several types of migratory raptors (top predators), including crested honey buzzard (*Pernis ptilorhynchus*) and Japanese sparrowhawk (*Accipiter gularis*) originating from the East Asian. Sometimes the Green Paok Bird (*Pitta sordida*), a migratory bird native to Southeast Asia, dropped by. Various types of shorebirds such as, little egret (*Egretta garzetta*), common sandpiper (*Tringa hypoleucos*), and Bengal sea pigeons, as well as, waterbirds such as ruddy kingfisher (*Halcyon coromanda*) and white-throated kingfisher (*Halcyon smymensis*), are nested in this island.

LIFE BEYOND **GRANODIORITE**

Name of Burung Mandi is came from the story of foreign sailors in the early 18 century who wanted to berth in the seaside and from far the sea, they saw hills resembling the silhouette of a bird (*burung*) bathing (*mandi*) in the water. Since then, the term "burung mandi" became the name of a village as well as the geosite in Damar District.

The community in this area have skills of making traditional wooden boats called *kater*. In the afternoon, vibrant colorful *katers* are neatly anchored on the white sandy beach after catching rosy snapper.



Kater line-up on Burung Mandi Beach
Source: Team Documentation (2022)



Kwan Im Goddess Temple
Source: Team Documentation (2022)

Every end of the year, there is *Irau* Festival. It represents the exceptionality of socio-cultural background. Early in the morning, the fishermen started to compete catching huge amount of fishes and the winner is those who get the most. After awarding, all fishes grilled and all visitors may consumed as a celebration.

In terrain of Burung Mandi, a temple was built in 1747 and firmly stands above granodiorite rocks. A gigantic statue of Kwan Im Goddess, gracefully stood among the boulders. This temple has an altar of Stone God and become a place of worship for Chinese community. Accros the temple, a mosque was build as a symbol of harmony in diversity.



Kelapakampit Formation, Mendanau Island
Source: Pokdarwis Selat Nasik (2022)

STONE **FORTRESS**

Mendanau Islands Geosite is located in the western Belitong sea with Mendanau Island as the main hilly island surrounded by small islands. Stones found are composed of the metasediments of Kelapakampit Formation and Tajam Formation. Both formations are about 300 million years old (Permo Carbon). The rocks and minerals comprise sandstone inserted siltstone. It is suspected that the rock contained a tin lead-carrying layer with a small amount of quartz sandstone inserted siltstone.

Outcrops of metasedimentary rocks also can be found along the north side of the coast of Batu Dinding Island and Langer Island. The outcrop became the protective fortress for the two islands from the impact of the waves. Meanwhile, outcrops of Tajam Formation rocks can be found in Petaling Hill.

Tajam Formation
Source: Team Documentation (2022).



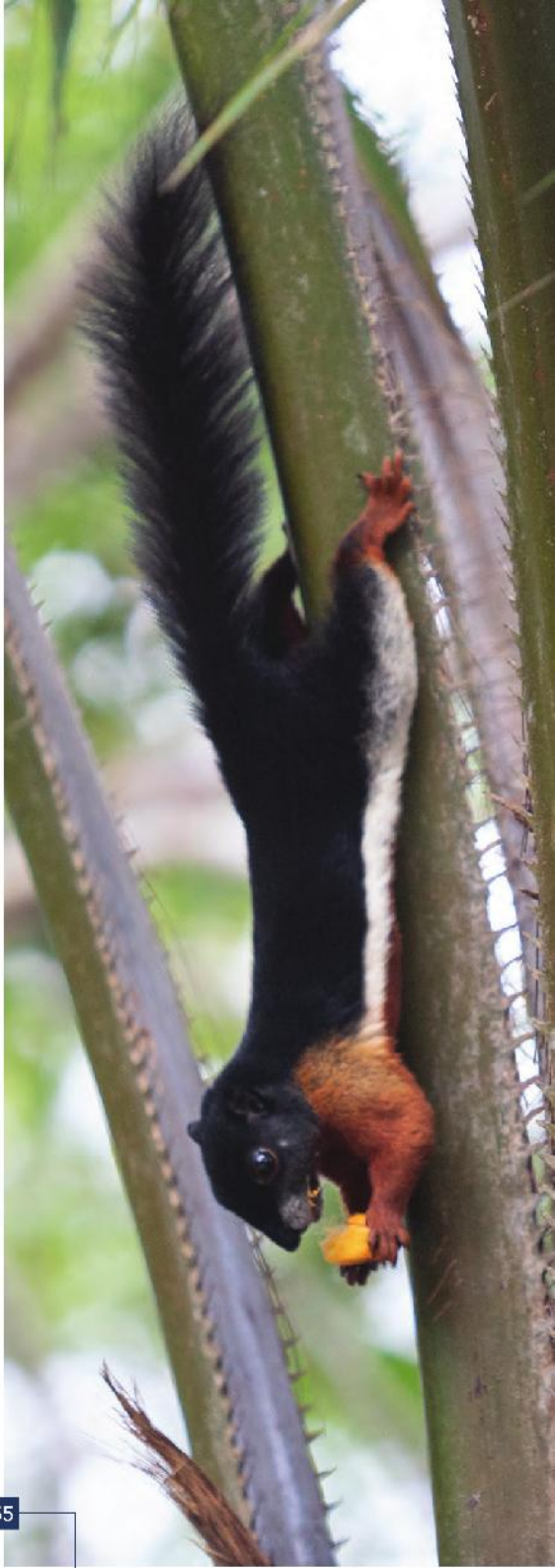
Petaling Leaves
Source: Team Documentation (2022)



SIMPOR **PETALING**

The specificity of flora in the Mendanau Islands inspires a folk song called *Simpor Petaling*. It consists two types of plants: *simpor* and *petaling*. *Simpor* consists of two kinds, *simpor laki* and *simpor bini* simpor. *Simpor laki* (*Dillenia eximia*) is believed to be an antidote to hazards. While the leaves of *simpor bini* (*Dillenia suffruticosa*) are commonly used by the community as wrapper for spices, cakes, and tempeh.

Petaling (*Ochanostachys amentacea*) is a species of tree that only grows in Petaling village of Mendanau Island. The plant is believed by the community to be an antidote to poison and to wild animals. When Mendanau people travel, they always bring pieces of petaling wood in their bags to avoid catastrophe.



Tusena
Source: Team Documentation (2022)

Another interesting plant in the Mendanau Islands, precisely Langer Island, is the Perepat tree, a mangrove vegetation of the Sonneratia alba type that is more than 200 years old.

Mendanau Island has a variety of endemic animals. The three-colored squirrel (Callosciurus prevostii) with a colored combination of orange, white, and black on the back. Local people are called as Tupai Selat Nasik (nasik strait squirrel) or Tusena, for short.

SUSTAINABLE
CULTURE AND **CREATIVE ECONOMY**

Malay culture influences the daily life of the community in Mendanau Islands. Poem, dance, and *keroncong* music, typical of Malay, are always performed in any events and parties, including traditional weddings.

The ritual of *bejuli* and candle umbrellas, which are difficult to find in Belitong, is performed at every wedding celebration. Candle umbrellas are used as night lighting to accompany the groom's journey to the bride's house during the marriage bond. *Bejuli* is a term of four people lift someone on stretcher. It could be bridal, important guest and boy who did circumcision.

Stambul Fajar, a form of *keroncong* art, still exists today. The show starts at midnight. The hosts will offer treats (*tambul)* in turn, until dawn arrives. Then, final offer is rice porridge (*timbok*) as a closing menu when dawn comes.



Musical instruments of Budaye Negeri Melayu Studio
Source: Team Documentation (2022)

Kemplang Food Souvenir
Source: Team Documentation (2022)



Community of Mendanau Islands produce fish and squid crackers (*kempelang*). The products are distributed to Belitong and other regions. Nowadays, fishermen's wife and lads create ecoprint fabric using natural dyes with pattern of leaves and endemic flowers of Mendanau.



Ecoprint Textile
Source: Team Documentation (2022)



Buku Limau Corals
Source: Beltim Tourism and Culture Office (2022)

UNDERWATER PANORAMIC OF **BUKU LIMAU**

In general, Buku Limau Village Geosite covers various islands called the Memporang Islands whose rocks are composed of 2 million years old alluvial eroding. The uniqueness of the geology in the geosite can be seen from the peculiarities of the Nangka Island in the form of Basaltic Andesite igneous rocks domination and with few outcrops of granodiorite (young granite rock formations) in the southeast.

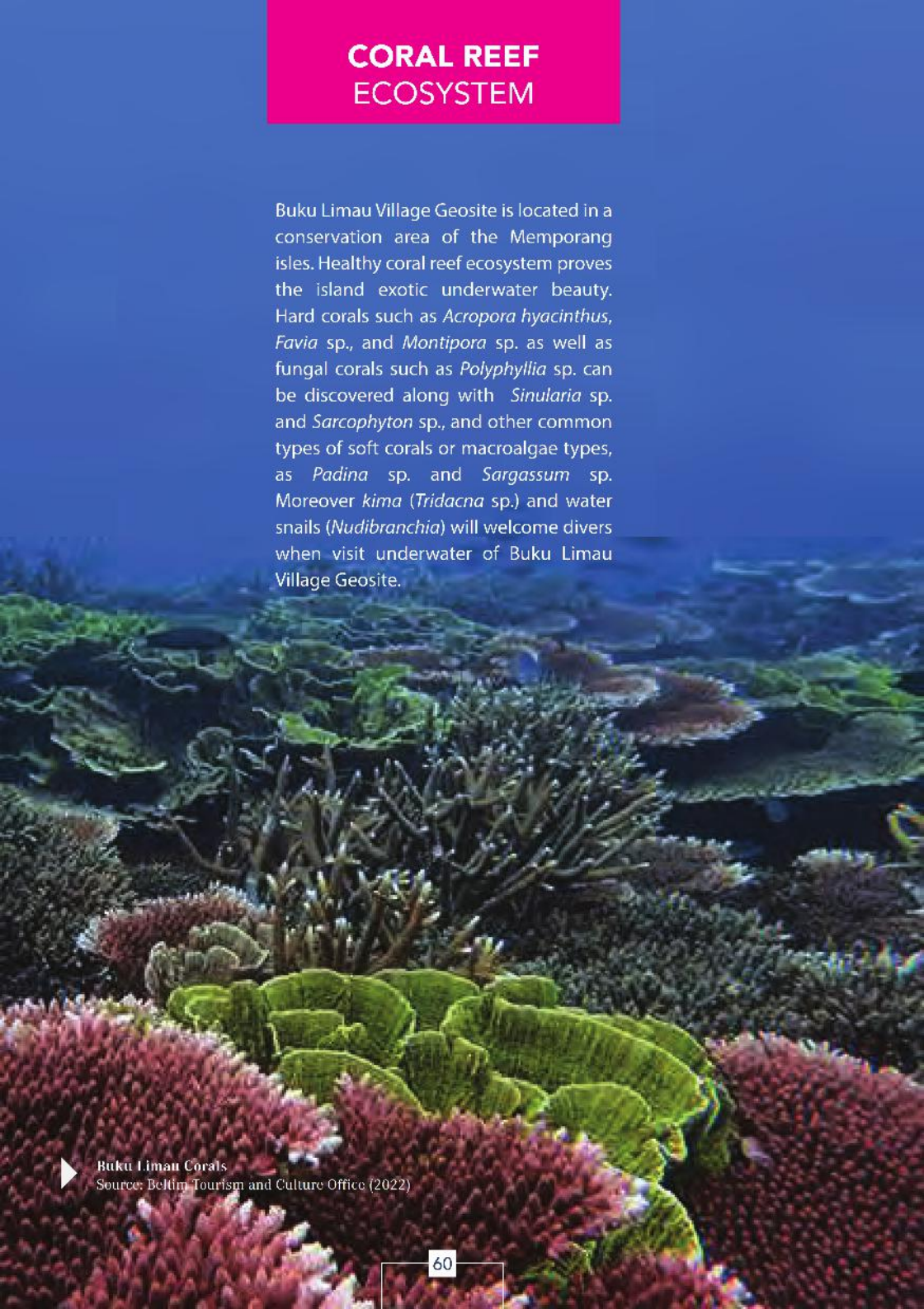
The specialty of this geosite can be found in its underwater life. Besides having wealthy maritime resources in the form of various types of fish and marine life, Buku Limau has colorful coral reefs.

Buku Limau Corals
Source: Beltim Tourism and Culture Office (2022)



CORAL REEF ECOSYSTEM

Buku Limau Village Geosite is located in a conservation area of the Memporang isles. Healthy coral reef ecosystem proves the island exotic underwater beauty. Hard corals such as *Acropora hyacinthus*, *Favia* sp., and *Montipora* sp. as well as fungal corals such as *Polyphyllia* sp. can be discovered along with *Sinularia* sp. and *Sarcophyton* sp., and other common types of soft corals or macroalgae types, as *Padina* sp. and *Sargassum* sp. Moreover *kima* (*Tridacna* sp.) and water snails (*Nudibranchia*) will welcome divers when visit underwater of Buku Limau Village Geosite.



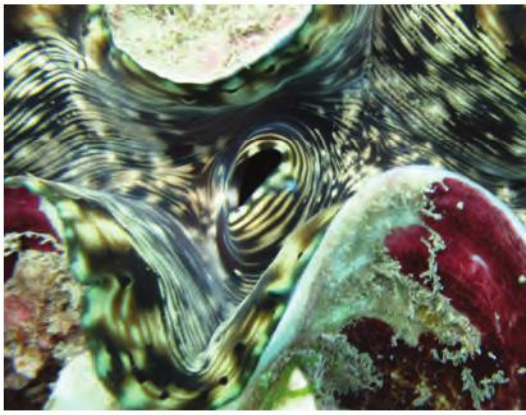
Buku Limau Corals
Source: Belitim Tourism and Culture Office (2022)



Underwater Biotic
Source: Beltim Tourism and Culture Office (2022)

A wellbeing coral reef ecosystem becomes home to various types of fish including Napoleon wrasse or Humphead wrasse (*Cheilunus undulatus*), one of the rare ridge fish. Grown mackerel, snapper, and round fish are examples of the catchment that bring economic value for the community. Small pelagic fish such as long-jawed anchovy (*Stolephorus commersonii*), *yellowstripe scad* (*Selaroides leptolepis*), *jui/japuh* or rainbow sardine (*Dussumieria acuta*), *tamban* or white sardinella (*Sardinella albella*) and small squid are catched, salted and sold as culinary products of the fishing village.

The beaches of the island are places where turtles lay eggs. The largest turtle nesting locations is on the conservation area of Pesemut Island and Memperang Island. Green turtles (*Chelonia mydas*) and hawksbill sea turtles (*Eretmochelys imbricata*) are types of critically endangered species that laid eggs.



Kima *(Tridacna* sp.)
Source: Beltim Tourism and Culture Office (2022)



Fish and Squid Drying Process
Source: Team Documentation (2022)

LIFE IN **FISHING VILLAGE**

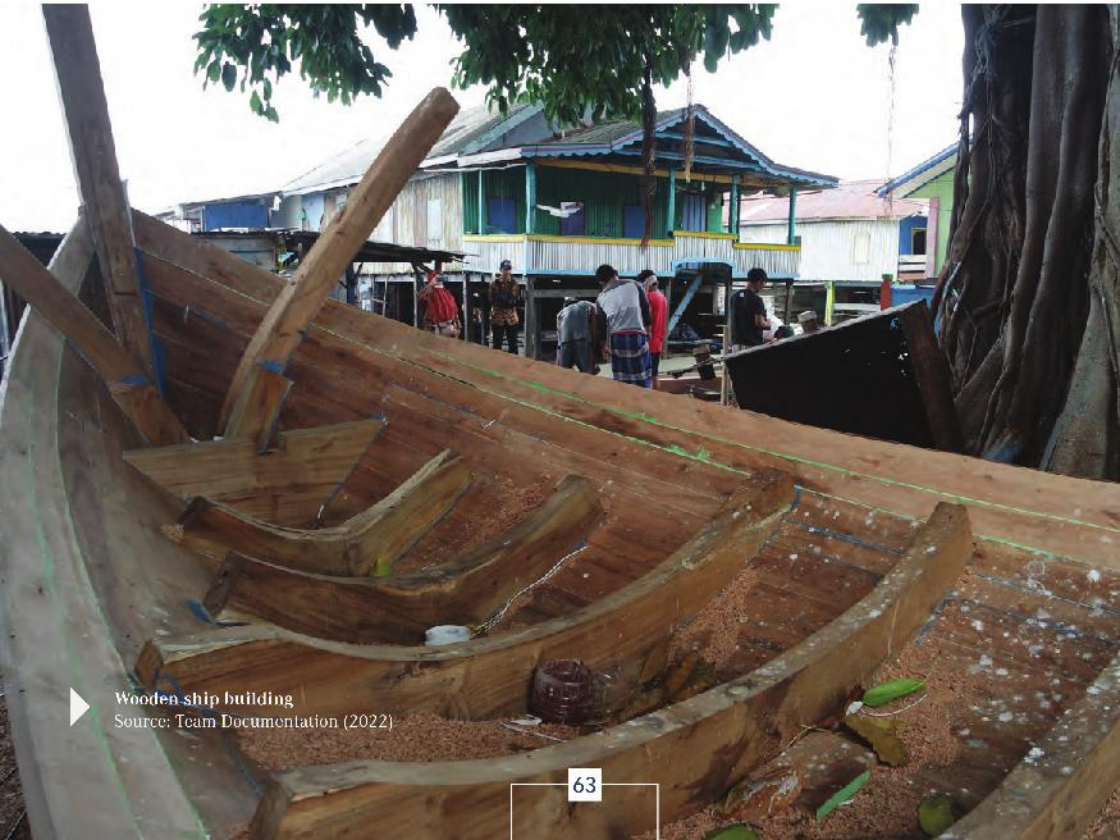
Buku Limau Village Geosite is inhabited by the Bugenese from South Sulawesi who have settled for generations. There, the men sailed to the ocean, while the women inherited the knowledge and skills of managing seafood. Women still use traditional methods and organic ingredients in marinating fish and squid, and then, dried using sun ray. The vastness of salted fish becomes an endless scenery in every corner of the village.

Bugenesemen have the expertise to make fishing boats inherited for four generations. An average 9-11 meters boat is made within 4-6 months. In monsoon season, the fishermen seek octopuses in the corals by wearing a long wooden tool called *Baribi*.

On important moments and celebrations, the residents of Buku Limau Village also follow the tradition of the Belitong people, namely eating *bedulang*, means eating together in one tray. When enjoying *bedulang*, residents can eat a complete dish in the form of various side dishes, vegetables, and chili sauce. Each *bedulang* is usually served to four people. *Bedulang* has become a symbol of togetherness and warmth as the character of the Belitong people.



Bedulang
Source: Yusti Husein (2022)



Wooden ship building
Source: Team Documentation (2022)



Old tin mining of Nam Salu Open Pit
Source: Team Documentation (2022)

GEOSITE LIST
BELITONG UNESCO GLOBAL GEOPARK



UGG BELITONG AT GLANCE

The success of Belitong as UNESCO Global Geopark is owing to its complementary between geological, biological, and cultural elements united as one attraction. The existence of geological and tectonic processes, evolution of the earth's landmass, benefit the natural landscapes to be a homeland fauna and flora. Furthermore, Belitong Geopark is supported by the acculturation of Malay and Chinese settlers.



Geo-products
Source: Team Documentation (2022)

There is various distinctiveness of Belitong Geopark, such as, the landscape of *tor* granite, *satam* stone (billitonite), and quartz diorite rocks on the tin belt. In addition, there is a history of ancient tin mines in the form of outcrops of Permo-carbon sedimentation rocks, *kerangas* ecosystems in sedimentary ridges, seascapes and small islands, as well as biogeography and their relationship to geological, biological, and cultural diversity.

Belitong Geopark

The Belitong Geopark carries out UNESCO's mission in education and research through the Geopark Information Center (GIC). Geo-education and geo-literacy are instill and develop people's knowledge, attitudes and skills related to geological, biological, and cultural diversity that support the Sustainable Development Goals (SDGs). Geo-products, such as pepper, coffee, herbs, and honey, are the outcome of continuous research and innovation, and will remain developed for the empowerment and welfare of the community.

Geo education
Source: Team Documentation (2022)



WOMEN IN **BELITONG GEOPARK**



Women made ecoprint
Source: Team Documentation (2022)

Women take part in geo-product innovation as the uniqueness of the Belitong Geopark. They become the artists or craftsmen behind the beauty of traditional Belitong fabrics, such as *Cual* hand-woven textile, ecoprint with natural dyes, and batik that brings new economic prosperities. Women also play roles in the development of Small and Medium Enterprises (SME), community empowerment, and good governance that create added values for Belitong Geopark.

The sustainability of the Belitong Geopark is indivisible from role of women as a proof to achieve the Sustainable Development Goals (SDGs) particularly regarding gender equality. Half of human resource management of Belitong Geopark are women. Women participate in a strategic role at every level of geopark governance to reach the mission of education, nature and cultural conservation, and creative economy development. In the previous stories about the seven geosites in this book, it can be seen the actual contribution of women to many occassion.



Harversting Belitong Spice
Source: Billiton Spice (2022)

BELITONG
IN THE FUTURE

The Belitong Geopark is an investment for future generations. It has a roadmap in the coming years, starting from its designation as a UNESCO Global Geopark (UGGp), followed by research development, geo-product innovation, socio-technopreneur development, up to become a sustainable Belitong UGGp that will accommodate future needs.

Community-based geotourism exists as an opportunity in the sustainability of geoparks in the future. Tourism concepts that prioritize conservation and education are able to attract tourists through activities, such as geo-track and trail, geo-sport, and geo-culinary. In the future, digitalization will become a platform in the development of e-geo tourism to ease anyone to get information and data about the Belitong Geopark.



Geotourism
Source: Team Documentation (2022)



Geotrail
Source: indonesiaphotogallery.com (2022)



Mangrove Conservation for Better Future
Source: HKM Sebrang Bersatu (2022)

ACCOMODATION

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0819-2966-8150

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Tanjong Tinggi, Keciput, Sijuk, Kabupaten
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CULINARY & SOUVENIR

Belitong and the surrounding islands have mixture of cultures. One form of this wealth can be seen from the diversity of culinary consumed by locals, including Belitong boiled noodles, *soto* Belitong, stuffed crab, and others. Belitong also has a special dish that is always present at every celebration and daily side dish, namely *gangan* which has been recognized as "Intangible Cultural Heritage".



Purun EcoStraw
Source : Dokumentasi Purun *Ecostraw* (2022)



Gangan
Source: Team Documentation (2022)

In addition to culinary, there are various handicrafts and snacks that have been supporting the community's economy as well as souvenirs for tourists, including cual hand-woven textile, batik, ecoprint with natural dyes, *lais* handwoven mat. Recently, Belitong also produces environmentally friendly straws that have been known to foreign countries, namely *Purun* Ecostraw, made from *purun* weeds (*Lepironia articulata*) that grow in swamp.

