

**Hainan Island Field Study**  
**(6 days 5 nights)**  
**Learning and Teaching Materials**  
(for Senior Secondary School  
Geography Students)



**Edited by The Hong Kong Geographical Association**

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## **Introduction**

The field study tour to Hainan Island, China, presents a unique opportunity to explore a diverse range of attractions and comprehensively understand the island's multifaceted appeal. Known as the "Hawaii of China," Hainan Island is celebrated for its tropical climate, pristine beaches, lush rainforests, and rich cultural heritage. This study tour aims to provide an immersive experience encompassing traditional tourism, environmental conservation, aerospace technology, and cultural preservation.

## **Objectives**

- Analyse the traditional tourism destinations in Sanya, focusing on tourism's economic and social impacts on local communities.
- Investigate Hainan's rainforest's biodiversity and ecological significance, study the conservation efforts and sustainable tourism practices within the national parks.
- Understand China's advancements and achievements in aerospace technology and understand the global implications of current projects and future plans in space exploration.
- Examine the preservation of cultural heritage sites and their role in education and tourism.
- Understand the importance of wetland ecosystems and their role in maintaining biodiversity and environmental protection, as well as to understand the geological characteristics of global geopark and the significance of geo-conservation.

By engaging in different fieldwork activities, participants will develop a well-rounded perspective on Hainan Island's natural beauty, technological advancements, cultural richness, and efforts in sustainable development. This field study tour aims to appreciate Hainan's unique and precious natural landscape and intangible cultural heritage, and enhance national identity.

## Itinerary

Date	Activities
<b>Day 1</b>	
<b>AM</b>	Assemble at Hong Kong International Airport Flight from Hong Kong to Sanya
<b>PM</b>	<ul style="list-style-type: none"> <li>● Hotel check-in at Sanya</li> <li>● Explore the cityscape of Sanya. Learn about the urban and tourism development of Sanya</li> </ul>
<b>Day 2</b>	
<b>AM/PM</b>	Study the tourism development in Hainan <ul style="list-style-type: none"> <li>● Visit the Tianya Haijiao Scenic Area</li> <li>● Visit the Nanshan Cultural Tourism Zone</li> </ul> Understand the development of early tourist destinations in Sanya and explore changes in Hainan's tourism industry
<b>Day 3</b>	
<b>AM</b>	Rainforest Ecosystem <ul style="list-style-type: none"> <li>● Visit Yalong Bay Tropical Paradise Forest Park</li> </ul> Learn about the characteristics of rainforests and explore forest resource conservation in Hainan
<b>PM</b>	Overview of Sanya as a Coastal Tourist City <ul style="list-style-type: none"> <li>● Visit Luhuitou Park</li> </ul> Understand the development of Sanya as a seaside tourist city and conclude the tour of Sanya
<b>Day 4</b>	
<b>AM</b>	China's Aerospace Technology <ul style="list-style-type: none"> <li>● Visit Wenchang Aerospace Science Center</li> </ul> Explore advancements in China's aerospace development
<b>PM</b>	International Wetland Protection and Conservation <ul style="list-style-type: none"> <li>● Visit Dongzhaigang National Nature Reserve in Hainan</li> </ul> Learn about wetland protection and management in Hainan, China

<b>Day 5</b>	
<b>AM</b>	History and Development of Hainan <ul style="list-style-type: none"> <li>● Visit Hainan Museum in Haikou</li> </ul> Understand the natural history and development of Hainan Island
<b>PM</b>	Geology of Volcanoes and Volcanic Landforms <ul style="list-style-type: none"> <li>● Visit Leiqiong Global Geopark in Haikou</li> </ul> Learn about the global geopark system Understand volcanic landforms and geological resource conservation
<b>Day 6</b>	
<b>AM</b>	<ul style="list-style-type: none"> <li>● Breakfast and hotel checkout</li> </ul>
<b>PM</b>	Cultural Heritage Protection in Haikou <ul style="list-style-type: none"> <li>● Visit Haikou City</li> </ul> Learn about the cultural heritage protection in Haikou
<b>Evening</b>	<ul style="list-style-type: none"> <li>● Summary and discussion of the study tour</li> <li>● Direct flight from Haikou to Hong Kong International Airport</li> </ul>

*Note: The above itinerary is subject to change based on flight schedules and other transportation arrangements.*

## Sanya City

Sanya City, located at the southernmost tip of Hainan Province in China, is a renowned coastal tourist destination famous for its beautiful natural scenery and abundant tourism resources. Often referred to as the "Hawaii of the East," Sanya boasts unique coastal landscapes with clear waters, soft sandy beaches, a tropical marine climate, and a wealth of natural and cultural attractions. It is an ideal holiday destination.



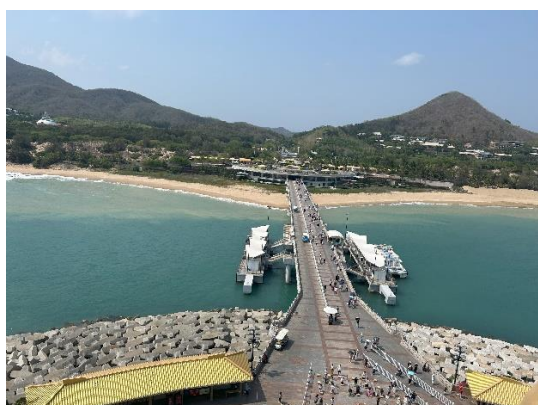
Sanya City is a picturesque tourist destination in Hainan Province, China, and a paradise for shopping enthusiasts. It features several duty-free stores, such as the renowned Haitang Bay International Shopping Centre, offering a wide range of international brand products, from cosmetics to jewellery and watches, at highly competitive prices. Besides duty-free shopping, unique markets like the First Market in Sanya are also worth a visit, where tourists can find fresh seafood, tropical fruits, and Hainan specialities. Moreover, Sanya's commercial districts and shopping malls host numerous international and domestic brands, while local handicrafts such as Huanghuali wood carvings, coconut carvings, and shell crafts make for unique souvenirs. In summary, Sanya offers a rich shopping experience that combines duty-free advantages, local specialities, and modern shopping conveniences, catering to the various needs and preferences of visitors. This enhances Sanya's appeal as a comprehensive tourist city with well-rounded facilities.

## **Tianya Haijiao**

Located in Sanya City, Hainan Province, Tianya Haijiao is one of China's most romantically symbolic coastal scenic areas. This spot boasts spectacular coastal landscapes, including the famous Tianya and Haijiao stones, which attract countless visitors who come to make wishes and take memorable photos. In addition to its natural beauty, Tianya Haijiao is rich in cultural heritage, featuring numerous historical sites and cultural monuments, such as inscriptions by ancient poets. These elements allow visitors to enjoy the scenery while immersing themselves in a profound cultural atmosphere. In 2024, Tianya Haijiao Scenic Area was designated as a national 5A-level tourist attraction.



## **Nanshan Cultural Tourism Zone**



Nanshan Cultural Tourism Zone, located 40 kilometers southwest of downtown Sanya City in Hainan Province, is a large park that showcases traditional Chinese Buddhist culture. This scenic area is built amidst mountains and seas and serves as an ecological tourism demonstration zone in Hainan Province. Its natural environment and scenic resources are well-protected, earning it the "China Habitat Environment Example Award." The most famous attraction here is the 108-meter-high Nanshan Guanyin Statue, the tallest sea-based Guanyin statue in the world. Visitors can admire the magnificent Buddhist architecture and learn about the rich Buddhist culture and the ethnic traditions of Hainan Island.

## **\*Yalong Bay Tropical Paradise Forest Park**

Yalong Bay Tropical Paradise Forest Park, located in the southeast of Sanya City, Hainan Province, is a nature reserve renowned for its rich natural landscapes and ecological diversity. It features a rare coastal tropical rainforest landscape globally and is the best-preserved tropical rainforest along Hainan's 1,650-kilometer coastline. Covering a total area of 1,506 hectares, the park boasts over a dozen peaks, more than 1,500 species of tropical plants, over 190 species of wild animals, 210 bird's nest villas, and the Orchid Valley, making it an excellent place to study tropical rainforest ecology.



The terrain of Yalong Bay Tropical Paradise Forest Park is diverse, rising from sea level to several hundred meters, creating a rich variety of landscapes. This area features gentle river valleys, steep peaks, clear streams, and waterfalls, showcasing the diversity and vitality of the tropical rainforest.



***(\*This attraction can only serve as an introductory experience to tropical rainforests; students may not fully grasp the realities of a primary rainforest.)***

## Luhuitou Scenic Area



Luhuitou Scenic Area, located in Sanya City, is a coastal park renowned for its beautiful natural scenery and tranquil environment. Opened in 1989, it is situated on the Luhuitou Peninsula at the southwestern tip of Sanya City in Hainan Province. The park offers the best vantage point for overlooking the urban landscape of Sanya, with its highest peak at an elevation of 181 meters and covering a total area of 82.88 hectares. It is a theme park that emphasises both romantic culture and ecological displays.

The park gets its name from its mountain shape, which resembles a deer looking back at the moon, making it a famous landmark and tourist attraction in Sanya. The scenic area boasts excellent bay views, rich tropical plants, and diverse bird species. It is also the core area of the forest vegetation nature reserve in Sanya, featuring evergreen tropical monsoon rainforest ecology with various plant species, including many national and Hainan-specific species.

Visitors can stroll along the coastline, enjoying the sea breeze and sunshine, or admire the expansive views of Sanya City and the distant mountains from the viewing platforms.

## Wenchang Aerospace Science Centre

The Wenchang Aerospace Science Centre, located at the entrance of the Wenchang Aerospace Launch Site in Hainan Province, is one of China's significant bases for aerospace activities. It promotes the spirit of "Two Bombs, One Satellite, and Manned Spaceflight," centred on patriotism. This science centre showcases China's historical achievements in space exploration and outlines future plans, covering areas such as satellite launches, deep space exploration, and manned space missions. It features interactive exhibits and simulation experiences, allowing visitors to understand aerospace technology and the mysteries of the universe closely. The centre is not only a paradise for aerospace enthusiasts but also an educational base that inspires the scientific dreams of young people.





## Hainan Dongzhaigang National Nature Reserve



Hainan Dongzhaigang National Nature Reserve, located in the northeast of Hainan Province, is a nature reserve aimed at protecting the mangrove ecosystem and wetland biodiversity. The reserve covers a total area of 3,337.6 square kilometres, including 1,578.2 square kilometres of mangroves and 1,759.4 square kilometres of mudflats. It primarily protects the coastal mangrove ecosystem, rare and endangered species such as waterfowl, and the biodiversity within the area. The extensive wetlands covered by mangroves provide an ideal habitat for various rare birds and aquatic animals. It is one of the first seven wetland reserves in China to be listed in the "List of Wetlands of International Importance."



Established in January 1980 with the approval of the Guangdong Provincial Government, Dongzhaigang National Nature Reserve was upgraded to a national-level reserve in July 1986 by the State Council. It is the first wetland nature reserve in China focusing on mangrove ecosystems. In 1992, it was listed as a wetland of international importance, and in 2006, it was designated as a model reserve by the National Forestry and Grassland Administration.

## Hainan Museum

The Hainan Museum, located in Haikou City, is a comprehensive museum that showcases the rich historical, cultural, and natural heritage of Hainan. The museum's exhibitions cover various fields, including Hainan's natural history, folk culture, and art collections. Through precious artifacts and interactive displays, visitors can gain an in-depth understanding of Hainan's historical evolution, ethnic customs, and natural landscapes. The Hainan Museum serves not only as a place for learning and research but also as an important platform for promoting cultural exchange and enhancing national identity.



## The Leiqiong UNESCO Global Geopark



The Leiqiong UNESCO Global Geopark is located between the Leizhou Peninsula in Zhanjiang, Guangdong Province, and Haikou City in Hainan Province. The park comprises Zhanjiang Park, Haikou Park, and the Qiongzhou Strait, covering an area of 3,050 square kilometres.

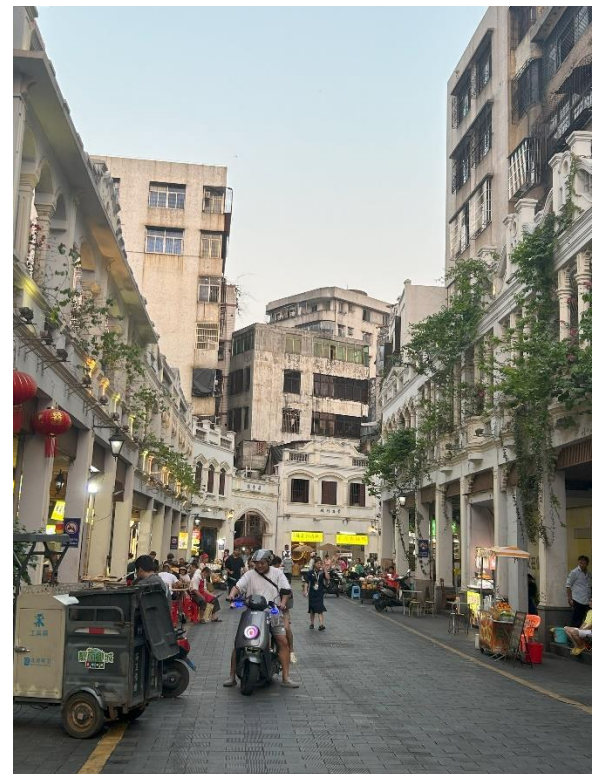
Situated at the junction of the Pacific Plate, the Indian Plate, and the Eurasian Plate, the Leizhou Peninsula and Hainan Province were once connected. Approximately 30 million years ago, east-west fault subsidence occurred, and seawater rushed into the fault zone, forming the Qiongzhou Strait, which separated the Leizhou Peninsula from Hainan Island. The formation of the Qiongzhou Strait was accompanied by frequent volcanic activity in the region, resulting in 11 periods of volcanic eruptions. These eruptions created vast basalt terraces and rich volcanic landforms in the central and southern parts of the park. Coastal volcanic rocks, shaped by seawater, formed a series of marine erosion and sedimentary landforms.

The park is renowned for its Quaternary volcanic belt, represented by Haikou's Ma'anling, and features unique volcanic landforms formed by interactions between hot magma and water—known as maar volcanoes (瑪珥火山). Some of these maar volcanoes have filled with water to become lakes, the most representative of which is the Huguangyan Maar Lake. This lake holds significant scientific value, making it an excellent location for studying ancient global climates and environmental changes.

## Haikou City

Haikou City is located at the northern edge of the tropical zone, featuring a tropical monsoon climate. Most of its coastline has gentle slopes, creating an expansive and continuous coastline. As a prefecture-level city and the capital of Hainan Province, Haikou is a strategic city in China's "Belt and Road" initiative, the core city of the Hainan Free Trade Port, and a crucial node in the Beibu Gulf city cluster. The city boasts a wealth of cultural heritage and historical relics that reflect the historical evolution and cultural development of Haikou and Hainan Island. This includes ancient temples, traditional streets, historical buildings, and cultural monuments.

Visitors to Haikou can explore the century-old Qilou Old Street, which houses approximately 600 Qilou buildings, with 331 designated as protected historical buildings. This area is the largest and best-preserved collection of Qilou architecture in China and was named one of the "Top Ten Historical and Cultural Streets in China" by the Ministry of Culture and Tourism in 2009. Haikou's cultural heritage not only attracts numerous history and culture enthusiasts but also forms a significant part of the city's unique charm.



## **Natural Resources of Hainan Island**

Hainan Island, located in the South China Sea, is a geographical wonder with diverse natural resources. Its unique tropical climate and geographical position make it a hotspot for both terrestrial and marine biodiversity. The following overview highlights the various natural resources of Hainan Island, illustrating its ecological richness through data and examples.

### **Terrestrial Resources**

Hainan's terrestrial ecosystem is dominated by extensive tropical rainforests, which cover approximately 20% of the island's land area. These rainforests are home to over 4,600 species of vascular plants and more than 500 species of terrestrial vertebrates. Notably, the island hosts several endemic species, such as the critically endangered Hainan gibbon (*Nomascus hainanus*), with fewer than 30 individuals remaining, making it one of the rarest primates in the world.

The island's forests also provide economically valuable plants. Hainan is one of China's main rubber-producing regions, featuring vast plantations of rubber trees (*Hevea brasiliensis*). Additionally, the island is a significant producer of tropical fruits like lychees, longans, and mangoes, which are both consumed locally and exported.

### **Marine Resources**

Hainan's marine resources are equally abundant, with an extensive coastline and warm seawater. The island's Exclusive Economic Zone (EEZ) covers a vast area of the South China Sea, rich in fish and other marine life. Fisheries are a crucial component of Hainan's economy, with an annual production exceeding 1.2 million tonnes of seafood. Key species include grouper, snapper, and mackerel, all of which are highly valued in both domestic and international markets.

The coral reefs surrounding Hainan, especially in the Sanya region, are particularly noteworthy. These reefs serve as biodiversity hotspots, protect the coastline from erosion, and support tourism activities. The reefs are home to numerous species of corals, fish, and invertebrates, providing essential habitats for marine life and supporting activities such as snorkelling and diving.

### **Mineral Resources**

Hainan also boasts rich mineral resources. The island has iron ore, bauxite, and gold deposits. These resources are mined and processed, contributing significantly to the local economy. For example, the Shilu Iron Mine is one of the largest iron mines in China, producing a substantial amount of iron ore annually.

### **Water Resources**

Numerous rivers, lakes, and reservoirs characterise the island's water resources. The Nandu River is the longest river in Hainan, playing a critical role in irrigation, drinking water supply, and hydroelectric power generation. Additionally, the Songtao Reservoir is one of the largest reservoirs in Hainan, providing water for agriculture and domestic use, ensuring water security for the island's residents.

### **Agricultural Resources**

Hainan's agriculture benefits from the island's fertile soil and favourable climate. The island is a major producer of tropical crops, including coconuts, which thrive in coastal areas. Hainan's coconut production accounts for about 99% of China's total, making it a core component of the local economy. Additionally, Hainan is renowned for its high-quality coffee, which is grown in the volcanic soil of the central highlands and exported worldwide.

### **Conclusion**

In summary, Hainan Island's natural resources are diverse and abundant, encompassing terrestrial and marine ecosystems, mineral deposits, and agricultural

products. These resources support the local economy, sustain residents' livelihoods, and promote ecological diversity. By establishing the National Tropical Rainforest Park, Hainan is committed to balancing economic development with environmental sustainability, ensuring that its natural resources are preserved for future generations.

## **Establishment of Hainan National Tropical Rainforest Park**

Establishing Hainan National Tropical Rainforest Park marks a significant step for China in protecting its unique biodiversity and promoting sustainable development. Officially launched in 2020, the park covers approximately 4,400 square kilometres across several key areas of Hainan Island, including the central and southern regions such as Bawangling National Nature Reserve, Jianfengling National Forest Park, and Diaoluoshan National Forest Park. This initiative is part of China's broader ecological civilisation strategy, aiming to balance economic growth with environmental protection.

The primary goal of the National Tropical Rainforest Park is to protect Hainan's tropical rainforest ecosystems, which are among the most biodiverse regions in the world. The park aims to safeguard the habitats of numerous endangered species, including the critically endangered Hainan gibbon (*Nomascus hainanus*), with fewer than 30 individuals remaining in the wild. Additionally, the park is committed to preserving the island's rich flora, encompassing over 4,600 species of vascular plants.

The park also plays a crucial role in maintaining ecological functions such as carbon capture, water regulation, and soil protection. These functions are vital for mitigating the impacts of climate change and ensuring the sustainability of local agricultural practices.

The park has several core areas, each with specific conservation and management strategies. The core areas are strictly protected, with most human activities prohibited to minimise disturbance to the natural environment. Surrounding these core areas are buffer zones where limited eco-tourism and research activities are allowed under strict regulations.

The park's management is overseen by a dedicated administrative body coordinating with local governments, research institutions, and non-governmental

organisations (NGOs). This collaborative approach ensures that conservation efforts are scientifically grounded and socially inclusive.

The establishment of Hainan National Tropical Rainforest Park has had significant economic and social impacts on Hainan Island. Eco-tourism is a major component of the park's strategy, aimed at creating sustainable income sources for local communities. The park generates employment opportunities and stimulates the local economy by attracting visitors interested in Hainan's unique biodiversity.

In 2021, the park attracted over one million visitors, generating approximately 500 million RMB (about 77 million USD) in tourism revenue. This influx of eco-tourists supported local businesses, including hotels, restaurants, and transportation services, thereby diversifying Hainan's predominantly agricultural economy.

Additionally, the park provides educational opportunities to raise awareness about the importance of conservation. Educational programs and guided tours help visitors understand the ecological significance of tropical rainforests and the urgent need to protect them.

Despite its successes, the National Tropical Rainforest Park faces several challenges. One of the main issues is balancing conservation with the needs of local communities. Ensuring that residents benefit from the park without compromising its ecological integrity requires careful planning and ongoing dialogue.

Another challenge is managing the impact of tourism. While eco-tourism offers economic benefits, it also poses environmental risks if not properly managed. Implementing sustainable tourism practices and limiting the number of visitors is crucial to preserving the park's natural beauty and biodiversity.



Looking ahead, the park aims to enhance conservation efforts through increased scientific research and international collaboration. Partnerships with global conservation organisations and participation in international biodiversity networks can provide additional resources and expertise to support the park's goals.

Hainan National Tropical Rainforest Park is a key project in China's ecological conservation efforts. By protecting one of the world's most biodiverse regions and promoting sustainable development, the park is a model for balancing environmental protection with economic growth. Its establishment preserves Hainan's unique natural heritage and provides economic opportunities and educational benefits for local communities. The park is poised to contribute significantly to global biodiversity conservation efforts with continued support and effective management.

## **Sanya as a Coastal Tourist City**

Located at the southernmost tip of Hainan Island in China, Sanya is renowned for its tropical climate, beautiful beaches, and rich cultural heritage. It is often called the "Hawaii of the East". Sanya attracts millions of tourists annually, significantly contributing to the local and regional economies.

The allure of Sanya as a coastal tourist city primarily stems from its captivating natural scenery. The city boasts several famous beaches, like Yalong Bay, Dadonghai, and Sanya Bay. Yalong Bay, in particular, is renowned for its clear waters and white sandy beaches, making it an ideal spot for swimming, sunbathing, and water sports. This bay is often compared to the world's top beach destinations, impressing visitors with its beauty and tranquilly.

In addition to its beaches, Sanya is surrounded by dense tropical forests and mountainous areas, offering a variety of outdoor activities. Yalong Bay Tropical Paradise Forest Park and Tianya Haijiao Scenic Area are popular attractions known for their hiking trails and picturesque landscapes. These natural attractions provide a unique blend of beach and nature tourism experiences, setting Sanya apart from other destinations.

Sanya's appeal extends beyond its natural beauty to its rich cultural and historical heritage. The Nanshan Cultural Tourism Zone, which includes the Nanshan Temple and the giant Guanyin statue, is a significant cultural landmark attracting both domestic and international tourists. This site offers a glimpse into Chinese Buddhism and traditional architecture, enhancing Sanya's cultural tourism experience.

Moreover, the local Li and Miao cultures add to the city's cultural richness. Visitors can explore traditional villages and experience local customs, crafts, and cuisine. These

cultural interactions provide an in-depth understanding of the region's history and way of life.

Tourism is the cornerstone of Sanya's economy. In 2019, the city welcomed over 23 million tourists, generating approximately 55 billion RMB (around 8.5 billion USD) in tourism revenue. Significant investments have been made in the city's tourism infrastructure, including luxury resorts, international hotels, and modern transportation facilities such as Sanya Phoenix International Airport.

The rapid growth of tourism has spurred economic development in related industries, including hospitality, retail, and services. The increase in employment opportunities has benefited local communities, improving living standards. Additionally, the government has implemented policies to support sustainable tourism development, ensuring that the economic benefits of tourism are balanced with environmental protection.

Despite its success, Sanya faces challenges in sustainable tourism. The influx of tourists puts pressure on local resources and the environment. Issues such as beach erosion, water pollution, and habitat destruction need careful management to protect the area's natural beauty and ecological integrity.

To address these challenges, Sanya has adopted several sustainable tourism measures. Initiatives promoting eco-friendly hotels, waste reduction programs, and the protection of marine and coastal ecosystems are underway. The city is also committed to diversifying its tourism products to reduce pressure on popular attractions and more evenly distribute the benefits of tourism.

Sanya aims to maintain its status as a top coastal tourist city by improving infrastructure, expanding the range of tourist attractions, and promoting its unique cultural heritage. The city's strategic location and the favourable climate attract visitors

year-round. With continued efforts to balance tourism development with environmental sustainability, Sanya is poised to maintain its leading position in China and the world.

## **Economic Development of Hainan Island**

Hainan Island, the southernmost province of China, has experienced significant economic development over the past few decades. This transformation has been driven by strategic policies, infrastructure development, and its unique geographical advantages. The following discusses key aspects of Hainan's economic development, highlighting major industries, initiatives, and future prospects.

### **Designation as a Special Economic Zone**

In 1988, Hainan was designated as a Special Economic Zone (SEZ), laying the foundation for its rapid economic growth. This status allowed Hainan to implement more liberal economic policies, attract foreign investment, and undertake market-oriented reforms. Its strategic location in the South China Sea, near major shipping routes, further enhanced its economic significance, making it a crucial hub for trade and tourism.

### **Tourism Industry**

Tourism is the cornerstone of Hainan's economy. Renowned for its tropical climate, beautiful beaches, and luxury resorts, Hainan attracts millions of tourists annually, especially Sanya. In 2019, the island welcomed over 80 million tourists, generating approximately 105 billion RMB (around 15 billion USD) in tourism revenue. The government has heavily invested in tourism infrastructure, including airports, roads, and hotel facilities, to support this growth.

### **Service Sector Growth**

With the growth of tourism, the service sector, including retail, finance, and real estate, has also flourished. Developing international shopping centres and implementing duty-free policies have boosted consumer spending, attracting high-end retail investors.

## **Agricultural Sector**

Agriculture remains a vital part of Hainan's economy, with the island being a major producer of rubber, coconuts, coffee, and various fruits. Hainan's fertile soil and favourable climate conditions make it an ideal location for these crops. In recent years, efforts to modernise agriculture by introducing advanced agricultural technologies have increased productivity and ensured sustainability.

Hainan is also a leader in seed breeding and high-tech agriculture, often called the "Silicon Valley of seeds." This agricultural innovation aims to enhance food security and supply high-quality seeds to other parts of China and the world.

## **Establishment of Hainan Free Trade Port**

In 2020, the Chinese government announced the establishment of the Hainan Free Trade Port, a landmark initiative to transform Hainan into a globally influential economic zone by 2050. This initiative includes a series of liberalisation measures such as reduced tariffs, streamlined customs procedures, and policies encouraging foreign investment. The Free Trade Port is expected to transform Hainan into a major gateway for trade and investment, attracting multinational companies and promoting economic diversification.

## **High-Tech and Green Industries**

Hainan is also focusing on developing high-tech industries and promoting green economy initiatives. The Hainan Ecological Software Park is a prime example, hosting numerous tech companies and startups. The island aims to become a leader in fields such as biotechnology, renewable energy, and environmental protection. The government supports these industries through preferential policies and investments in research and development.

## **Environmental Sustainability**

Environmental sustainability is at the core of Hainan's development strategy. The province has implemented strict environmental regulations to protect its natural resources and maintain its status as an eco-friendly destination. Initiatives like the National Tropical Rainforest Park emphasise balancing economic growth and environmental protection.

## **Challenges and Future Prospects**

Despite its achievements, Hainan faces challenges such as balancing rapid development with environmental protection, managing urbanisation pressures, and ensuring inclusive growth that benefits local communities. Addressing these challenges requires comprehensive planning and effective governance.

Looking ahead, Hainan's prospects are bright. The continued development of the Free Trade Port, advancements in high-tech and green industries, and a robust tourism sector are expected to drive sustained economic growth. Through strategic policies and investments, Hainan is poised to become a major economic powerhouse in China and a key player in the global economy.

## **Geoparks of Hainan Island**

Located in the South China Sea, Hainan Island is renowned for its beautiful beaches, rich culture, and significant geological heritage. In 2006, Hainan Island was designated as a UNESCO Global Geopark, recognising its outstanding geological landscapes, rich biodiversity, and efforts in promoting sustainable tourism and education. The Hainan Geopark exemplifies the island's diverse geological features and commitment to preserving its natural heritage.

### **Key Geological Features**

Hainan Global Geopark encompasses several unique geological sites, each showcasing distinct characteristics and historical significance. The park is known for its diverse geological formations, including volcanic landforms, limestone caves, and coastal erosion features. One of the most prominent features is the Leiqiong Volcanic Group, which spans a large area in the northern part of the island and comprises over 40 volcanic cones and craters, with volcanic activity dating back millions of years.

The geopark also includes the Haikou Shishan Volcanic Cluster National Geopark, home to well-preserved volcanic cones, lava tunnels, and crater lakes. These geological formations provide valuable insights into the region's volcanic activity. Basalt lava flows and pyroclastic deposits are major attractions, offering a window into the Earth's geological past.

### **Biodiversity Hotspot**

In addition to its geological significance, Hainan Geopark is a biodiversity hotspot. The island's tropical climate and varied terrain support many ecosystems, from tropical rainforests to coastal mangroves. These ecosystems are home to many endemic species, including the critically endangered Hainan gibbon and various unique plant species. Integrating biodiversity conservation with geological preservation is a core theme of the geopark, ensuring the protection of the environment's abiotic and biotic components.



## **Scientific and Educational Value**

Hainan Global Geopark serves as a natural laboratory for scientists and researchers. Its diverse geological formations and rich biodiversity provide opportunities for interdisciplinary research in geology, ecology, and environmental science. The park's management collaborates with academic institutions and research organisations to promote scientific research and monitor environmental changes.

Educational programs and facilities within the park aim to raise public awareness about the importance of geological and environmental conservation. Visitor centres, museums, and guided tours offer educational experiences that showcase the geological history and ecological value of the region. These programs target both residents and tourists, fostering a sense of stewardship for natural heritage.

## **Sustainable Tourism**

Sustainable tourism is a cornerstone of the Hainan Geopark's strategy. The geopark promotes eco-friendly tourism practices to minimise environmental impact and support local communities. Tourism activities are carefully managed to ensure they do not degrade the natural environment. For example, eco-tourism initiatives include guided tours of volcanic landscapes, birdwatching in protected areas, and environmental conservation workshops.

Local communities play an integral role in the management and success of the geopark. Community-based tourism programs benefit residents economically, encouraging their involvement in conservation efforts. The geopark helps establish sustainable livelihoods and enhance community well-being by engaging residents in tourism and conservation activities.

## **Challenges and Future Prospects**

Looking forward, Hainan Global Geopark faces challenges in balancing tourism development with conservation goals. Managing visitor numbers, preventing environmental degradation, and maintaining the integrity of geological and ecological sites require ongoing efforts and adaptive management strategies. Climate change also poses potential risks to the geopark's ecosystems and geological features.

Continued investment in infrastructure, research, and community engagement is expected to enhance the geopark's value as a site for conservation and education. The UNESCO Global Geopark designation provides a platform for international cooperation and knowledge exchange, further strengthening its efforts in conservation and sustainable development.

The Hainan Global Geopark is a testament to China's commitment to preserving its unique geological and biological heritage while promoting sustainable economic development. Through careful management and collaboration, the geopark aims to continue serving as a model for balancing natural conservation with tourism and community benefits.

## **Cultural Heritage Protection in Haikou**

Haikou, the provincial city of Hainan Province, is not only a vibrant economic centre but also a treasure trove of cultural and historical heritage. Significant progress has been made recently to preserve its rich history while promoting sustainable urban development. These efforts include protecting historical sites, restoring traditional architecture, and promoting cultural heritage through education and tourism.

Haikou's history dates back over a thousand years, and its strategic location has made it an important port and trade centre throughout various Chinese dynasties. The city boasts numerous historical sites, including ancient temples, colonial-era buildings, and traditional Chinese architecture. One of the most famous areas is the Old Street (Qilou Old Street), known for its unique architectural style that blends Chinese and Western elements, reflecting Haikou's historical role as a cultural melting pot.

### **1. Protection Measures**

#### ***Restoration of Qilou Old Street***

The restoration of Qilou Old Street is a flagship project in Haikou's heritage protection efforts. The Qilou buildings, characterised by their arcade structures, were built in the 1920s and 1930s, combining local and colonial architectural elements. The restoration project aims to preserve these historic buildings while adapting them for modern use. Efforts include structural reinforcement, facade restoration, and converting the buildings for commercial and cultural purposes.

#### ***Temple Preservation***

Haikou is home to several ancient temples, such as the Five Officials Temple (Wugong Ci) and the Temple of the Five Immortals (Wuxian Temple), which hold religious, architectural, and historical significance. Preservation work focuses on maintaining original architectural features, using traditional materials and techniques, and ensuring the temples remain active sites for religious and cultural activities.

In addition to physical restoration, Haikou is committed to promoting its intangible cultural heritage, including traditional festivals, local crafts, and folk music. The Hainan Provincial Museum and various cultural centres play crucial roles in preserving and showcasing the region's heritage. Educational programs and cultural events are organised to engage the community and visitors, deepening their understanding of Haikou's cultural identity.

Despite significant progress, Haikou faces several challenges in heritage protection, such as urban development pressures, funding shortages, and the need for specialised restoration skills. To address these issues, Haikou has adopted a multifaceted strategy. Collaboration between the government, private sector, and non-governmental organisations is essential, ensuring funding, expertise, and community involvement in preservation projects.

## **2. Sustainable Tourism**

Promoting heritage tourism in a sustainable manner is crucial to ensure that historical sites can be enjoyed by future generations without compromising their integrity. This includes managing visitor numbers, providing educational tours, and developing infrastructure that minimizes environmental impact.

### ***Community Involvement***

Engaging local communities in heritage protection efforts is vital. Initiatives involving residents in the restoration process and promoting cultural activities help build a sense of ownership and pride in their heritage. The future of heritage protection in Haikou looks promising, with ongoing projects and strong commitments from the government and local communities. Plans are in place to expand protection efforts to more areas and integrate heritage protection with urban planning. This holistic approach aims to create a city that respects its past while embracing modernity.

Haikou's heritage protection efforts reflect its commitment to preserving its rich cultural and historical heritage. Through restoration projects, cultural promotion, and sustainable practices, Haikou ensures that its heritage remains an important and vibrant part of its identity.

## **China's Aerospace Exploration Base in Hainan**

Hainan Island, the southernmost province of China, has become a focal point for the nation's ambitious aerospace exploration program. The Wenchang Aerospace Launch Site, located on the northeastern coast of Hainan, serves as the primary base for these activities. This modern facility is crucial to China's aerospace strategy, offering unique advantages that enhance the country's ability to launch heavier payloads and undertake advanced missions.

### **Wenchang Aerospace Launch Site**

The Wenchang Aerospace Launch Site, officially known as the Wenchang Satellite Launch Centre, became operational in 2016. It is China's newest and most advanced launch site. Its coastal location offers several geographical advantages. Firstly, its proximity to the equator provides a significant boost from the Earth's rotational speed, which is essential for launching heavy payloads into high orbits. Secondly, sea-based launches minimise the risk to populated areas from launch failures or debris. The Wenchang facility is specifically designed to handle the Long March 5 and Long March 7 rockets, some of China's most powerful launch vehicles. These rockets are critical for launching large components of China's Tiangong space station and ambitious interplanetary missions like the Tianwen-1 Mars mission.

### **Economic and Technological Integration**

Wenchang's significance extends beyond its technical capabilities. Its location in Hainan Island integrates the launch site into the broader vision of economic and technological development in the region. The launch site is part of the Hainan Free Trade Port, an initiative to transform the island into a hub for international trade, tourism, and high-tech industries. This integration aims to leverage space exploration to drive economic growth and innovation in the province.

Since its inception, the Wenchang Aerospace Launch Site has been at the forefront of several high-profile missions. Notably, it is the launch site for the Long March 5 rocket, which has launched the core module of the Tiangong space station. Once completed, this space station will be a significant milestone for China, providing a platform for scientific research and international space cooperation.

### **Notable Missions**

In 2020, Wenchang launched the Tianwen-1 mission, successfully sending an orbiter, lander, and rover to Mars. This mission made China the third country to successfully land a rover on Mars, showcasing China's growing capabilities in space exploration.

Additionally, Wenchang was the launch site for the Chang'e 5 mission, which successfully returned lunar samples to Earth in December 2020. This mission demonstrated China's robotic lunar exploration and sample return capabilities, paving the way for future manned lunar missions.

Wenchang Aerospace Launch Site will be crucial in China's future space exploration endeavours. Ambitious projects, including manned lunar and Mars missions, are in the pipeline. The launch site will also support the launch of larger and more advanced space telescopes, global communication satellite constellations, and other scientific instruments.

### **Future Prospects**

Furthermore, China is considering the establishment of a permanent lunar research station, which would greatly benefit from Wenchang's launch activities. This lunar base aims to support long-term scientific research and could serve as a stepping stone for deeper space exploration missions, including those targeting asteroids and outer planets.

The development of the Wenchang Aerospace Launch Site is transforming Hainan into an economic and technological hub. The launch site has attracted significant infrastructure, tourism, and high-tech investments. This transformation aligns with China's broader goals of promoting innovation and integrating space exploration with economic development.

Located on Hainan Island, the Wenchang Aerospace Launch Site is a cornerstone of China's space exploration strategy. Its strategic location, advanced facilities, and successful missions underscore its importance. As China continues to expand its presence in space, Wenchang will remain central to these efforts, driving both the island's and the nation's economic and technological growth.



## Fieldwork Worksheet 1

Data Collection Methods : Observation, notes and  
photo taking

### 1. Latitude, Climate, and Weather of Hainan Province

#### i. Data collection form

Date	Location	Temperature (°C)	Wind Speed (km/hr)	Relative Humidity (%)

#### ii. Describe the weather conditions of Sanya, Hainan

*Using primary data and referencing secondary sources, complete the following task.*

- i. Explain the relationship between the climate of Hainan Province and its latitude position.

- ii. How does the year-round climate of Hainan Province affect local life and ecology?

- iii. What unique climate features does Hainan Province have compared to Hong Kong?

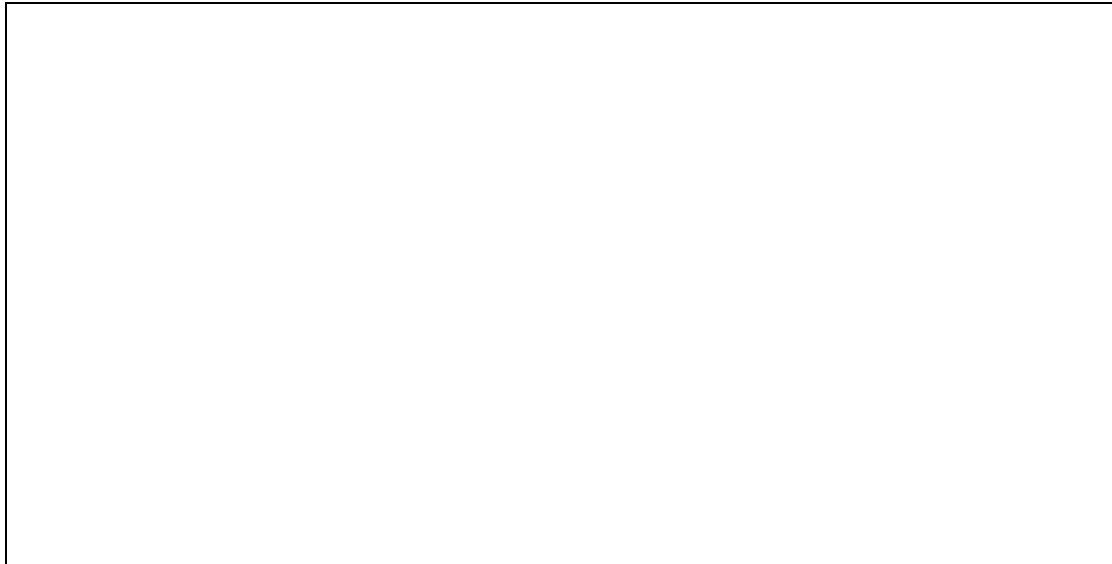
## Fieldwork Worksheet 2

### Luhitou Scenic Area Fieldwork Activities

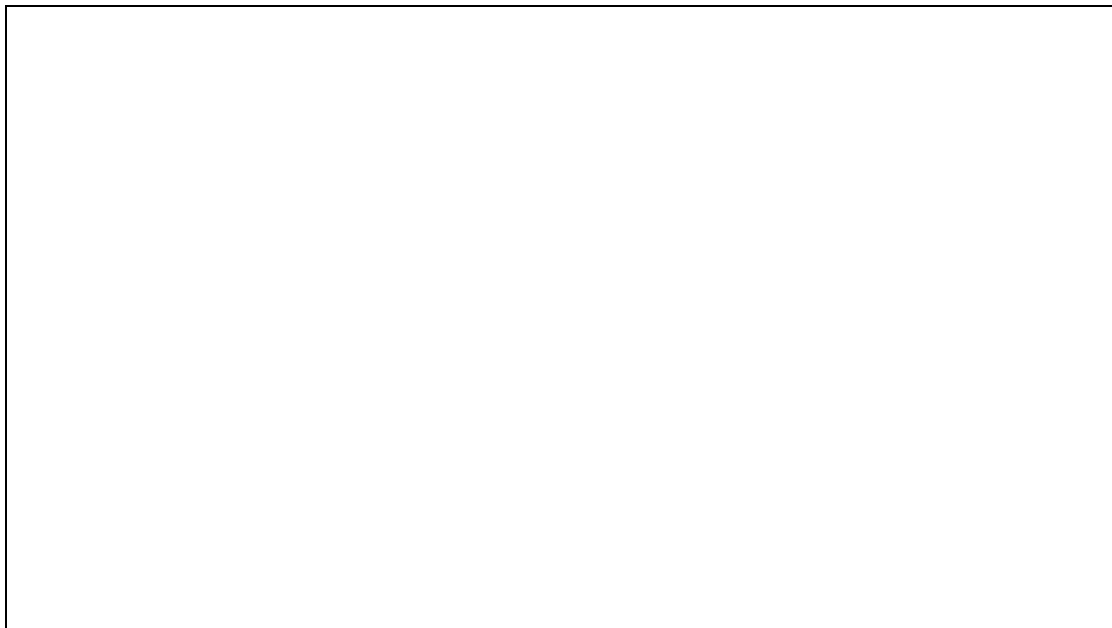
1. Overlook part of Sanya City from Luhitou Scenic Area and draw a sketch map of Sanya Bay, labelling major land uses and man-made structures.

Title : \_\_\_\_\_

2. Based on the sketch map of Sanya Bay, which industries do you think will lead the urban development of Sanya Bay? Explain your answer.



3. How does the location of Sanya Bay benefit Sanya's urban development? Explain your answer.



## Fieldwork Worksheet 3

### Coastal / Tianya Haijiao Scenic Area Fieldwork Activities

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Destination: \_\_\_\_\_

#### 1. Collection of fieldwork data - wind speed and direction

Time	Fieldwork location	Temperature (°C)	Wind direction	Wind Speed (km/hr)

#### Key points for measuring wind speed and direction

Equipments	Anemometer, Compass
Steps	<ol style="list-style-type: none"> <li>1. Ensure wind is unobstructed from all directions. Hold up a string, observe its movement, and use a compass to determine wind direction.</li> <li>2. Face the wind and raise the anemometer. Observe the wind speed for about 30 seconds to determine the sustained wind speed, excluding the condition of gusts and brief pauses of the wind.</li> </ol>

#### 2. Measuring longshore drift

Steps:

- Select a suitably shaped and sized pebble from the beach, marking it with waterproof paint.
- Place the pebble in the swash and backwash zone, marking the starting point.
- Observe the wave action approaching the shore.
- Measure the distance and direction of the pebble's movement from the starting to the end point within one minute.

- Repeat the experiment three times or until the average movement distance provides sufficient sample data.

	Distance travelled by the pebble (metres)	Direction of longshore drift
<b>Test 1</b>		
<b>Test 2</b>		
<b>Test 3</b>		
<b>Average</b>		

### 3. Wave frequency observation record

Observation site/location: \_\_\_\_\_

Observer: \_\_\_\_\_

#### Observation Guidelines:

- Choose a Suitable Location: Find a spot where you can clearly see the waves arriving and breaking. Mark your location.
- Record Wave Count: Use a stopwatch to count the number of waves reaching the shore. Each observation should last for five minutes.
- Repeat Measurements: To ensure accurate data, repeat the observation at least three times and record the data.
- Environmental Conditions: Note the weather, tide conditions, and any other factors that might influence the waves.

#### Recording Purpose:

- Wave counts help differentiate between constructive waves (average 6-9 per minute) and destructive waves (average 10-15 per minute). Constructive waves, with a lower frequency, are gentler and spaced further apart, promoting deposition along the shoreline. With a higher frequency, destructive waves are steeper and more frequent, often causing coastal erosion.
- By observing wave frequency at different times, we can understand the trends and underlying geographical processes affecting the coastline.

	<b>Time</b>	<b>Frequency of wave (minute)</b>
1.		
2.		
3.		
4.		
5.		
Average frequency of wave per minute		

### **Analysis and Discussion**

Based on the collected data, analyse the wave frequency to determine whether the current wave characteristics are constructive or destructive. Discuss how these wave characteristics influence the changes in the coastline of the Tianya Haijiao Scenic Area.

## Fieldwork Worksheet 4

### Tourist Spots / Yalong Bay Tropical Paradise Forest Park

#### Fieldwork Activities

Student name: \_\_\_\_\_ Date: \_\_\_\_\_

Tropical Rainforest Location: \_\_\_\_\_

#### What is Mass Tourism?

Mass tourism is where many tourists visit a specific destination, typically associated with organised and commercialised tourism activities. It relies on extensive tourism infrastructure such as hotels, resorts, and attractions, supported by widespread advertising to attract visitors worldwide. Characteristics of mass tourism include high levels of organisation, standardised products and services, and large-scale participants. While it significantly contributes to the local economy by creating jobs and generating income, it can also exert pressure on the environment and local culture, leading to overuse of resources, pollution, ecological damage, and cultural homogenisation. With growing awareness of sustainable development and responsible tourism, efforts are being made to balance economic benefits with the need to protect the environment and cultural heritage, promoting sustainable tourism practices.

#### What is Sustainable Tourism?

Sustainable tourism aims to minimise the negative impacts of tourism on the environment, culture, and socioeconomics while ensuring that future generations can also enjoy and experience these resources. It involves implementing key measures such as actively protecting the natural environment, reducing harm to ecosystems, respecting and preserving cultural heritage and traditions, and ensuring that the economic benefits of tourism are fairly distributed to local communities. Sustainable tourism strives for a balance among environmental, social, and economic aspects. Educating travellers about



their potential impacts on the local environment and culture and encouraging responsible behaviour is also crucial. Through this holistic approach, sustainable tourism aims to foster a tourism industry that benefits all stakeholders and ensures long-term development.

**1. What is your first impression of this tourist destination?**

- Very Poor     Poor     Average     Good     Very Good

Reasons:

**2. What activities does this tourist destination offer?**

- Historical and Cultural Tours
- Outdoor Adventures
- Shopping
- Dining Experiences
- Beach Leisure
- Other: \_\_\_\_\_

**3. How would you rate the environmental cleanliness of this tourist destination?**

- Very Dirty
- Dirty
- Average
- Clean
- Very Clean

**4. Visitor Statistics and Observations**

- i) Preparation: Ensure the recording form is ready and find a clear spot to observe visitors.
- ii) Recording Time: Select an interval, e.g., count visitors every 15 minutes for two minutes.

- iii) **Count Visitors:** In your chosen spot, count the number of visitors, noting whether they are individuals, families, or groups.
- iv) **Adding Remarks:** Record any special characteristics of visitors, such as nationality.
- v) **Respect and Safety:** Respect visitors' privacy and choose a safe, unobtrusive spot for observation.
- vi) **Identify Trends:** Review the data for any notable trends or patterns after the activity.

**Tourism Geography Fieldwork: Visitor Count Record Sheet**

Location: \_\_\_\_\_

Date: \_\_\_\_\_

Time Interval: From \_\_\_\_\_ to \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

<b>Time</b>	<b>Number of visitors</b>	<b>Type of tourist (individual, family or group)</b>	<b>Remarks (option)</b>

Average number of tourists: \_\_\_\_\_

**Observation Results:**

Peak Period: \_\_\_\_\_

Least Busy Period: \_\_\_\_\_

Common Visitor Types: \_\_\_\_\_

Other Remarks: \_\_\_\_\_

**5. Evaluate the phenomenon of mass tourism at the destination (can choose more than one option):**

- The destination appears to be under pressure from a large number of tourists.
- The destination manages mass tourism well.
- The facilities and resources at the destination seem overused.
- Observed tourism activities significantly affect the natural environment and cultural heritage.
- The destination contributes positively to the local economy.
- Other Observations: \_\_\_\_\_

**6. Evaluate the destination's sustainable tourism measures:**

- There are measures to reduce environmental impact.
- Encourages tourists to participate in environmental education and protection activities.
- Supports local economic development and cultural heritage protection.
- Offers environmental education and awareness activities.
- Local residents are involved in the development of tourism activities.
- Others, such as: \_\_\_\_\_

**7. Related Facilities and Support for Sustainable Tourism at the Destination:  
(Describe specific examples and provide photos)**

Example Description:

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Photos

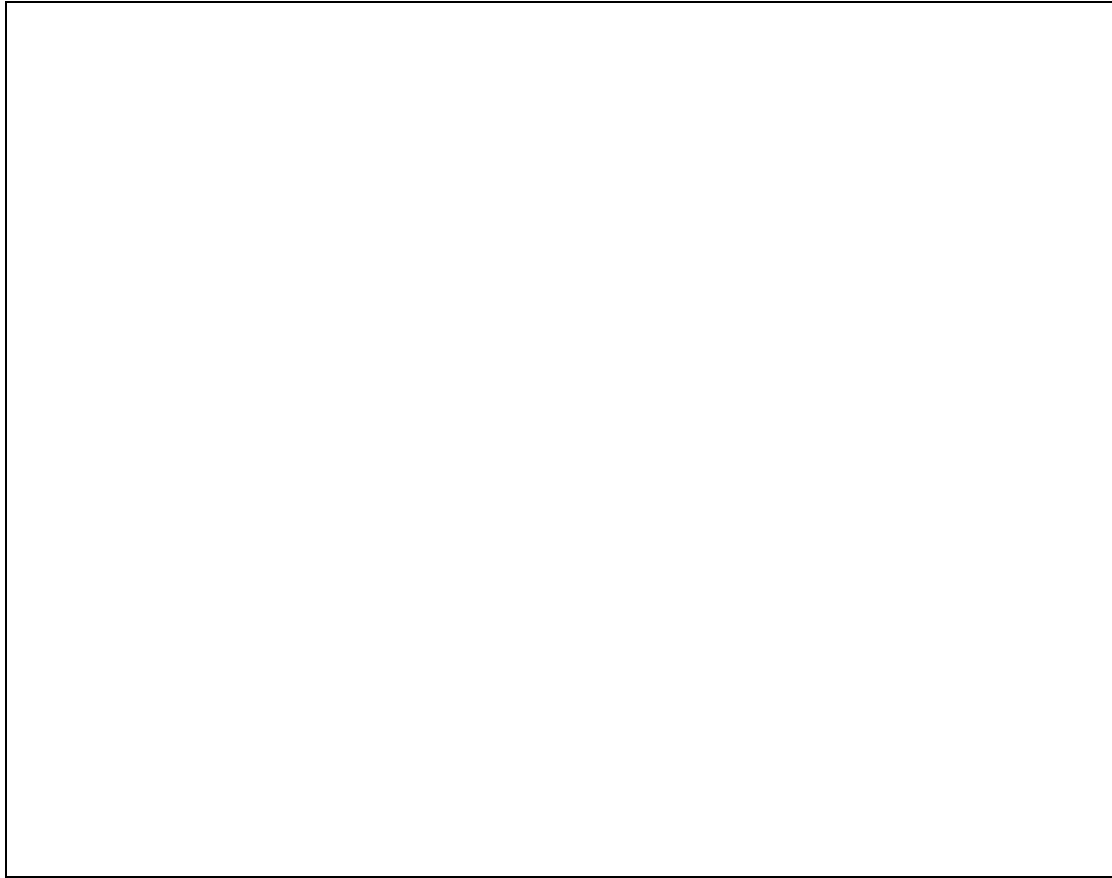

*Using primary data and referencing secondary sources, complete the following tasks*

**1. Impact of tourism activities on the local community and culture:**

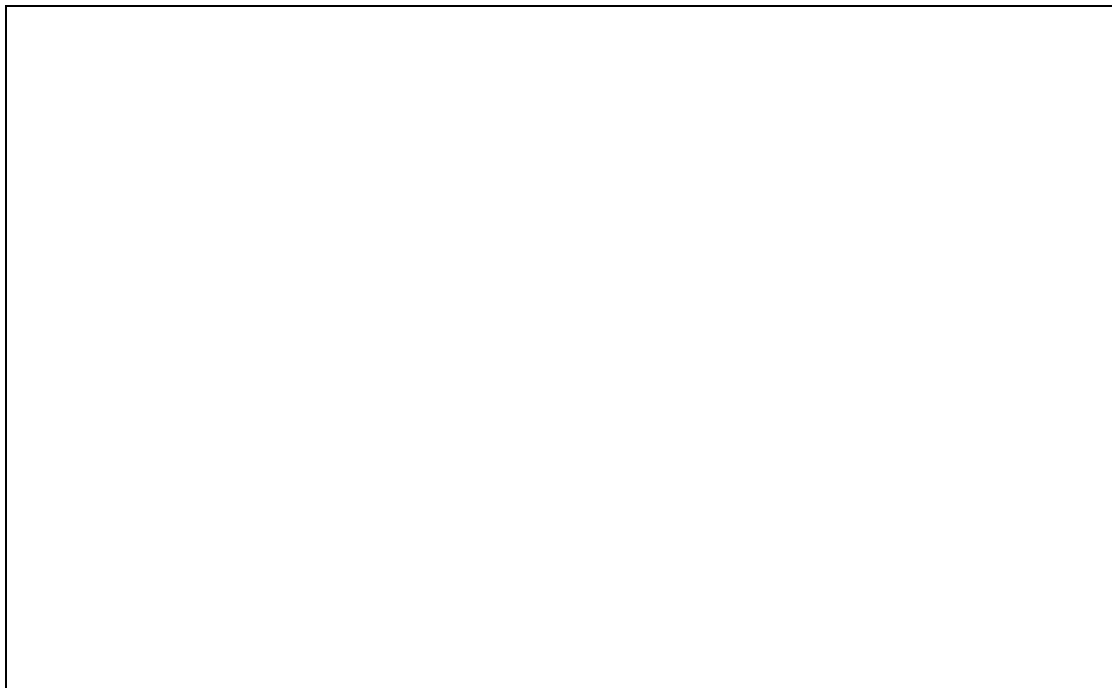
- Has the development of tourism changed the lifestyle and social structure of residents?
- Has tourism impacted local cultural traditions, historical heritage, or local industries?
- Has tourism affected the local community's social cohesion, cultural identity, or social values?

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**2. Impact of tourism activities on local sustainable development:**



**3. Discuss how to improve or enhance sustainable tourism practices at the destination**



## Fieldwork Worksheet 5

### Tropical Rainforest Fieldwork Activities

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Tropical Rainforest Location: \_\_\_\_\_

#### A. Introduction to Tropical Rainforest Ecosystem

##### 1. Describe the basic characteristics of the tropical rainforest you are in

Location: \_\_\_\_\_

Area: \_\_\_\_\_

Major Plant Species: \_\_\_\_\_

Major Animal Species: \_\_\_\_\_

#### B. Biodiversity Observation

##### 1. Choose a small area and record the plant and animal species you observe

Plant Species:

- Trees
- Vines
- Ground Cover Plants
- Other: \_\_\_\_\_

Animal Species:

- Birds
- Mammals
- Insects
- Other: \_\_\_\_\_

**C. Plant Adaptation Strategies**

1. For each adaptation strategy, if you observe the corresponding plants during your fieldwork, attach relevant photos and briefly explain the reason for this adaptation.

<b>Buttress Roots</b>	<b>Drip Tips</b>
Explanation:	Explanation

<b>Large Leaves</b>	<b>Climbers</b>
Explanation:	Explanation

**D. Collected Tree Data**

Fieldwork Location: \_\_\_\_\_

Date: \_\_\_\_\_

Recorders: \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

Sample No.	Plant Species	Height (m) 1. 1-5 m 2. 6-10 m 3. 11-20 m 4. 21-30 m 5. 30 m or above	Trunk Diameter (cm) 1. < 50cm 2. 50-100cm 3. 101-150cm 4. 151cm or above	Growth Condition Growth condition options : 1. Good: Plant is healthy, growing vigorously, no obvious pests or diseases. 2. Average: Plant is growing normally, possibly with minor pests or diseases or slight growth hindrances. 3. Poor: Plant growth is slow, with noticeable pests, diseases, or other growth impediments. 4. Withered: Plant is partially or completely withered, severely affected growth. 5. Dead: Plant is dead.



## **E. Tropical Rainforest Conservation Measures**

- 1. What measures are being used in this tropical forest park to protect the rainforest trees?**

*Using primary data and referencing secondary sources, complete the following tasks*

### **A. Human Activities and Their Impacts**

Evaluate the specific impacts of human activities on the tropical rainforest ecosystem

Types of Activities and Observations:

- 1. Record observed human activities (e.g. tourist behaviour, construction and buildings, logging, littering, and other pollution).**

**2. Describe how these activities affect the rainforest based on onsite observations.**

Impact on Rainforest	Evidence

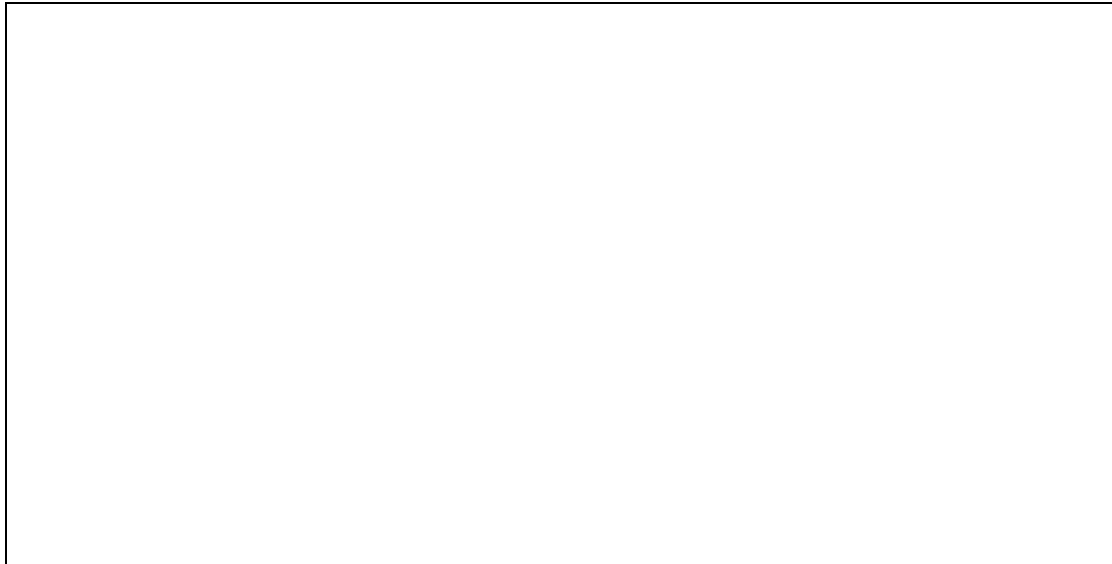
**B. Conservation and Sustainable Management Strategies**

Explore and analyse strategies for the conservation and sustainable management of this tropical rainforest:

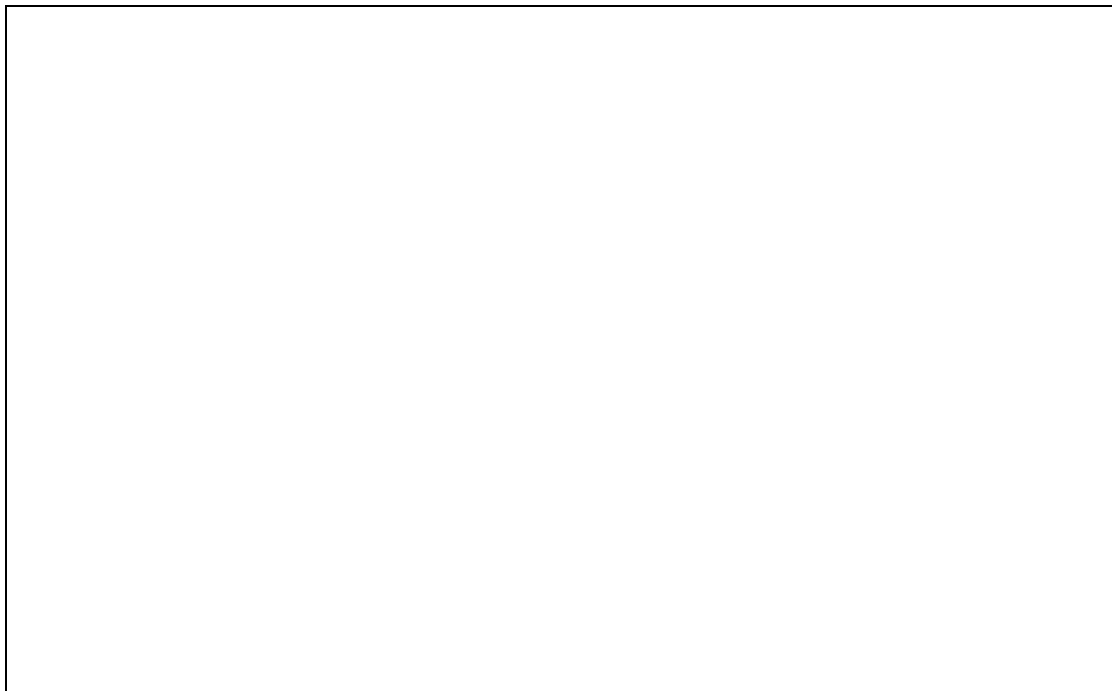
Propose possible conservation measures, such as establishing protected areas and sustainable forestry.

**1. Discuss the challenges and limitations of implementing these strategies.**

**2. Evaluate which strategies are most likely to effectively protect rainforest biodiversity while maintaining economic development.**



**3. Discuss how to balance the needs of local communities with rainforest conservation goals.**



### **C. Conclusion and Reflection**

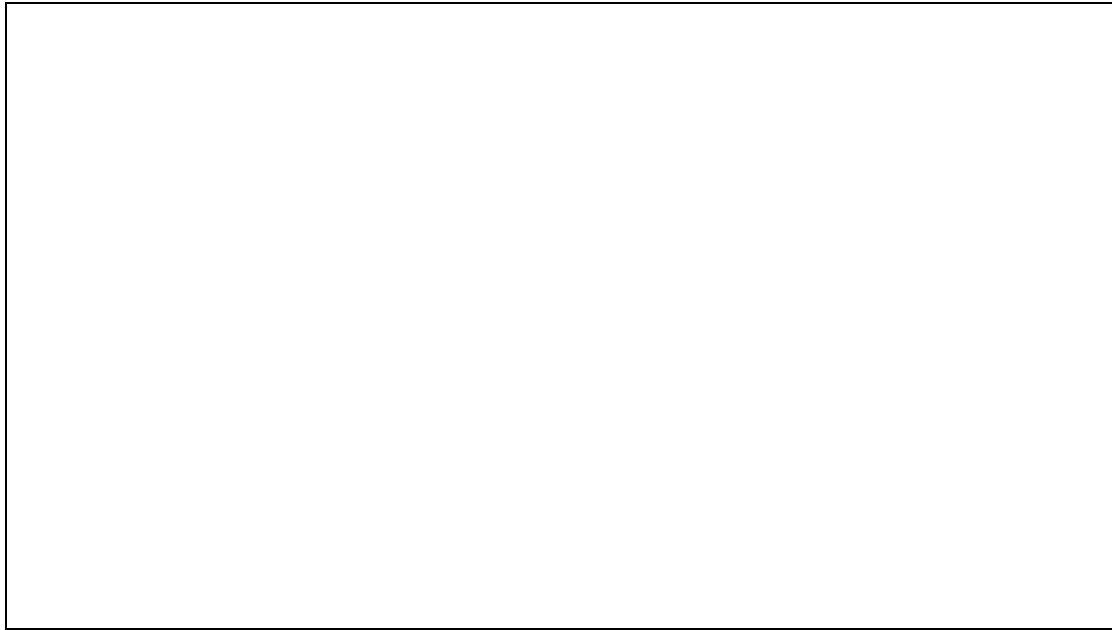
Based on your comprehensive observations and analysis, engage in critical thinking:

Conclusion: Provide insights into the future protection and management of tropical rainforests.

- 1. What do you think is the biggest challenge currently facing tropical rainforest protection and management, and why?**

- 2. If you were to propose an innovative conservation plan for protecting tropical rainforests, how would you design it and what would be its core principles?**

**3. Considering global climate change, discuss the role and changes of tropical rainforests in the global ecosystem.**



## Fieldwork Worksheet 6

### Wetland Nature Reserve / Hainan Dongzhai Port National Nature Reserve Fieldwork Activities

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Wetland Reserve: \_\_\_\_\_

#### A. Introduction to Wetland Ecosystem

##### 1. Briefly describe the basic information of the wetland reserve:

Geographical Location: \_\_\_\_\_

Type of Wetland (e.g. marsh, peatland, saltwater wetland, etc.): \_\_\_\_\_

Major Ecological Characteristics:

\_\_\_\_\_

#### B. Biodiversity Observation

##### 2. Choose an observation point in the reserve and record the plant and animal species observed:

###### Plant Species and Characteristics:

- Aquatic Plants
- Coastal Plants
- Riparian Plants
- Other: \_\_\_\_\_

###### Animal Species and Characteristics:

- Water Birds
- Amphibians
- Fish
- Other: \_\_\_\_\_

**C. Ecosystem of the Wetland**

**3. Does this wetland provide the following functions?**

- Flood Regulation
- Water Purification
- Carbon Storage and Capture
- Biodiversity Maintenance
- Recreation and Education
- Other: \_\_\_\_\_

**D. Human Activities and Impacts**

**4. Are there any of the following human activities in this wetland?**

- Agricultural Development
- Industrial Pollution
- Tourism Activities
- Urban Expansion
- Others: \_\_\_\_\_


**E. Conservation and Sustainable Management Strategies**

**5. Are there any conservation and sustainable management measures in place for this wetland?**

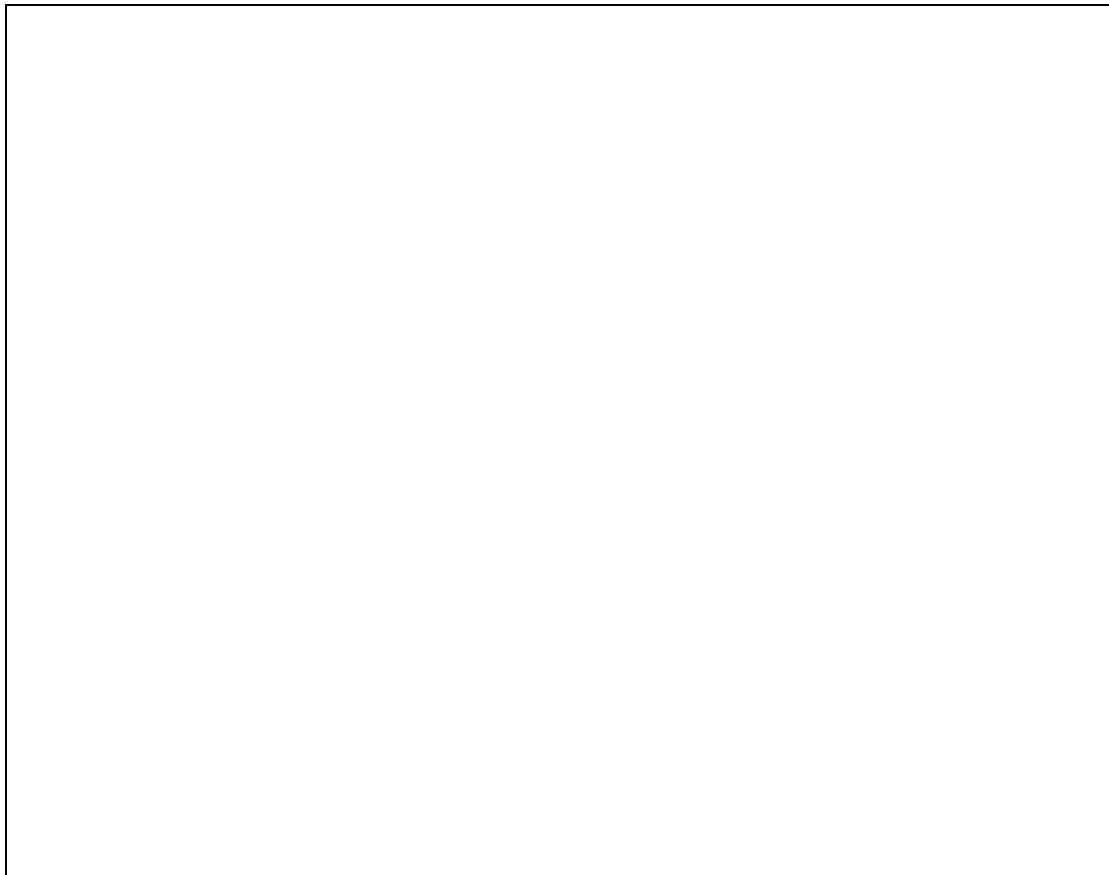
- Legal and Policy Protection
- Restoration and Rehabilitation Projects
- Community Involvement and Education
- Others: \_\_\_\_\_

*Using primary data and referencing secondary sources, complete the following tasks*

- 1. Evaluate the role of wetlands in local and global environments.**



- 2. What is the significance of wetland ecosystems for combating climate change?**

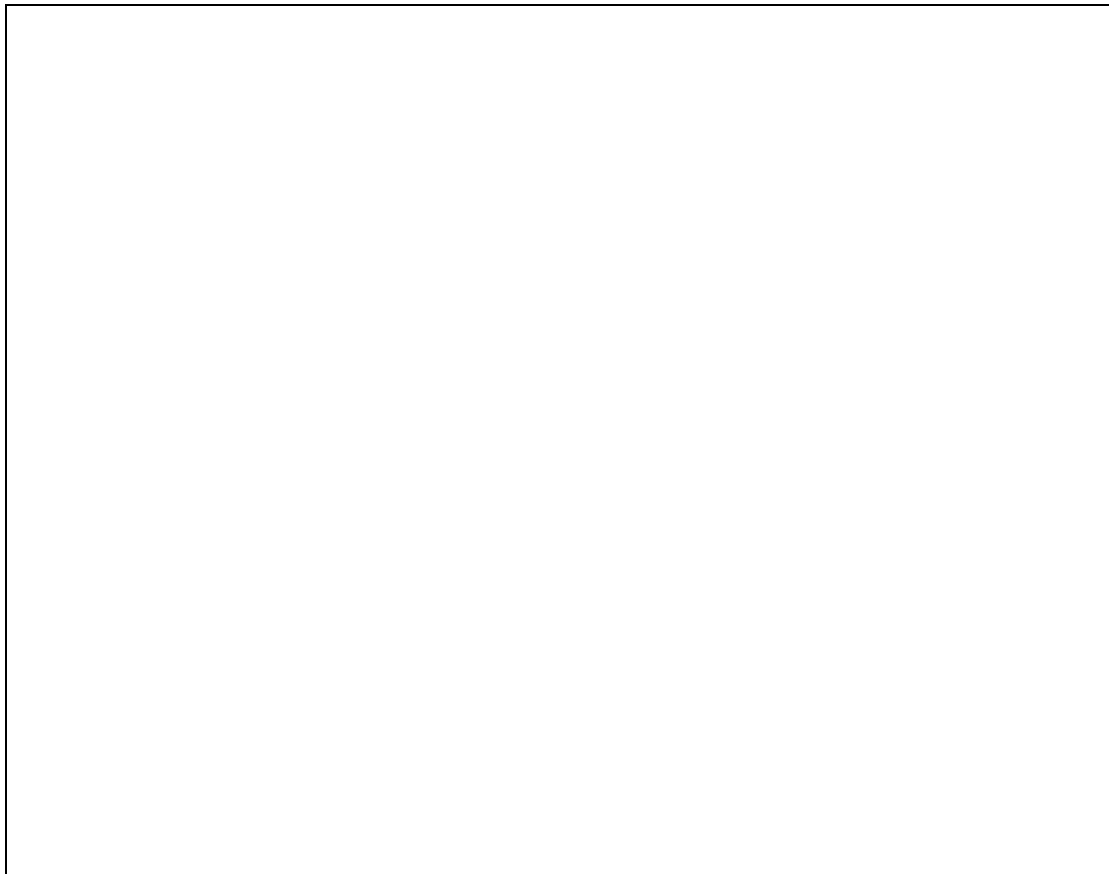




**3. How do human activities affect the wetland ecosystem, ecological balance, and biodiversity?**



**4. What challenges do future wetland conservation efforts face?**



**5. Based on your observations and analysis, provide insights and recommendations for the future of the wetland reserve.**

A large, empty rectangular box with a thin black border, intended for the student to write their insights and recommendations for the future of the wetland reserve.

## Fieldwork Worksheet 7

### Volcano Geopark / Leiqiong Global Geopark Fieldwork Activities

Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

Name of Geopark: \_\_\_\_\_

#### A. Observation of Volcanic Landform Features

1. Use photos or sketches to illustrate the main volcanic features you observed.

##### Volcanic Cone

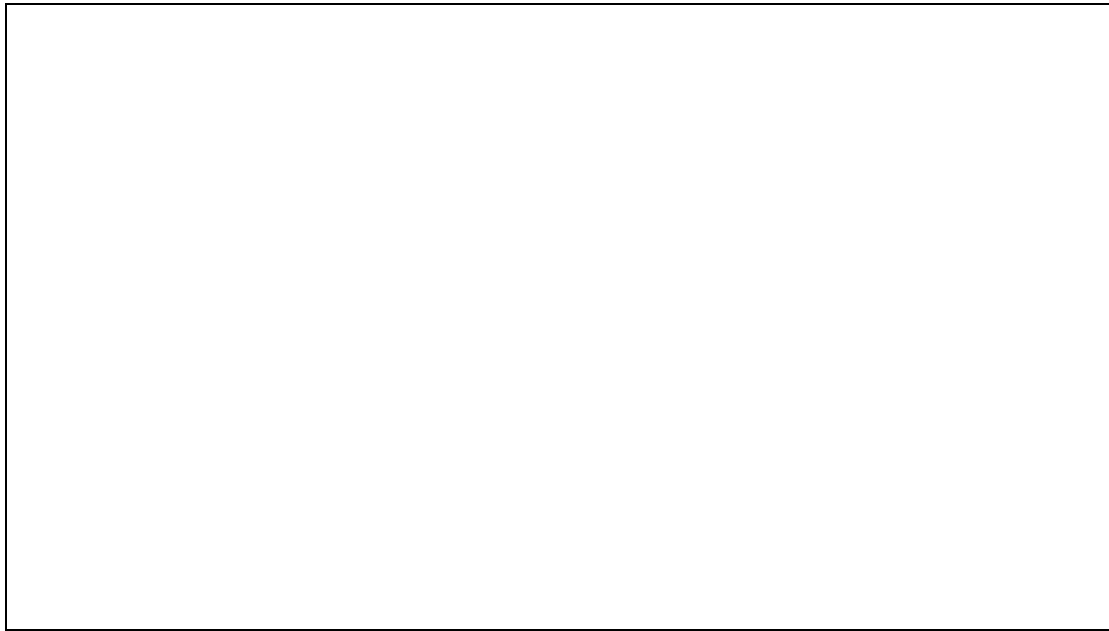
##### Volcanic Crater

Description	Description

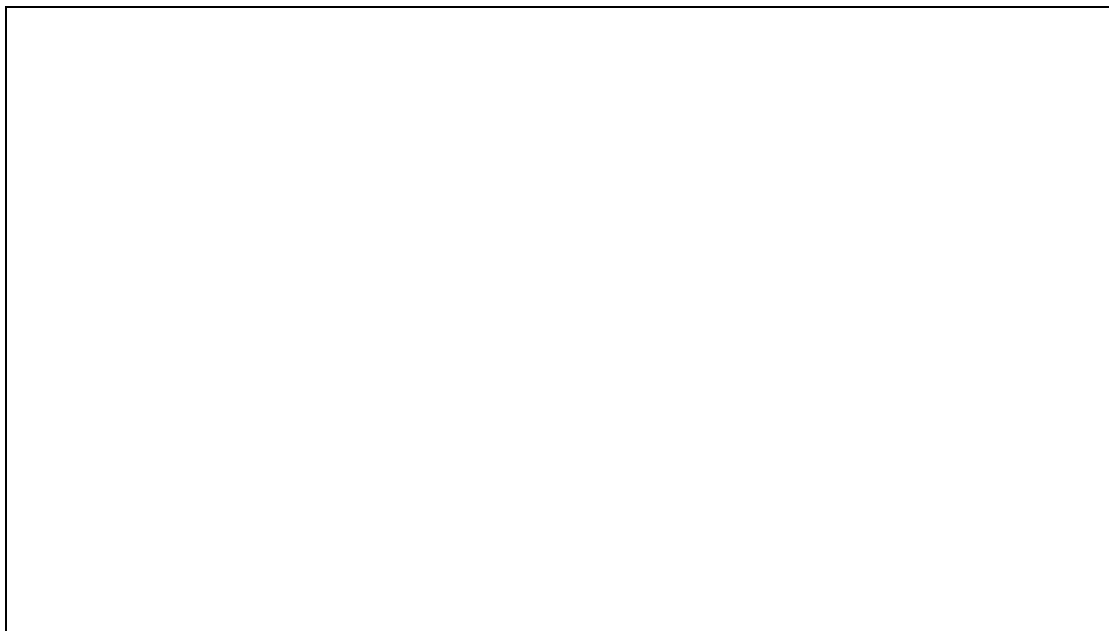
**B. Geological Process (Refer to Exhibits in the Geopark Museum)**

**2. Analyse and answer the following questions about the geological processes that formed these volcanic landform features.**


**i) What is the composition of the volcanic materials here? Where do they come from?**



**ii) In which geological period did the formation and activity of this volcanic area occur? What is the history of volcanic activity in this area?**



- iii) Describe the characteristics of the rocks in the geopark (color, structure, and surface texture)**

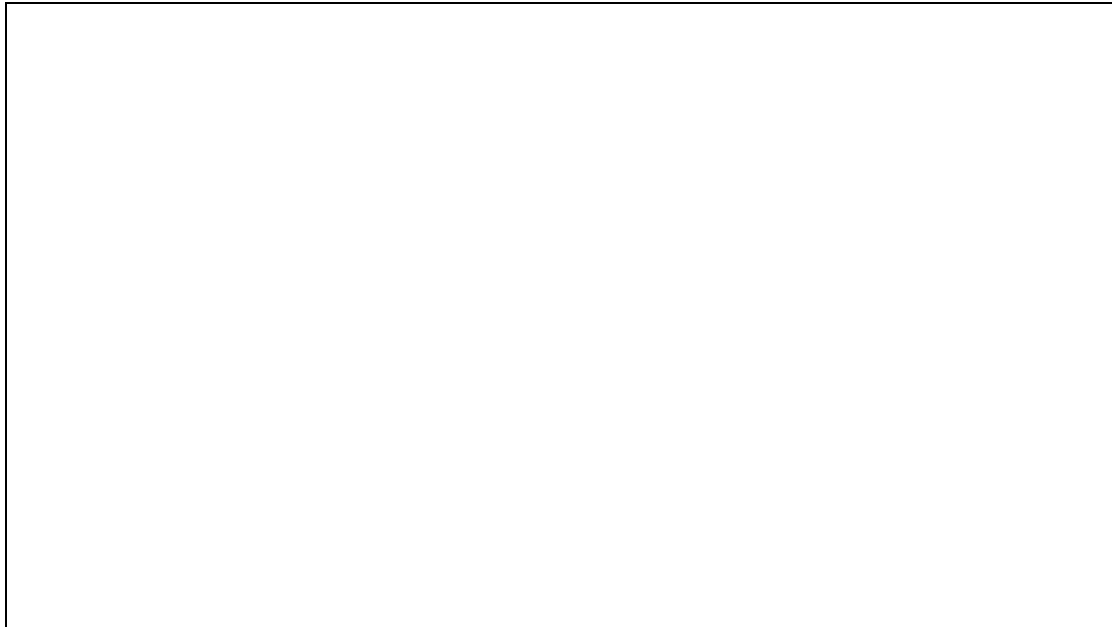


**C. Conclusion and Reflection**

- 1. What are the main factors that attract tourists to the geopark? What impact does this have on the local tourism industry?**



- 2. How does the geopark serve as an education and scientific research platform?  
What economic benefits does this bring to the local community?**



- 3. How does the geopark balance environmental protection with economic development while preserving natural heritage?**

