

Nature and Environment of the Hainan Province of China

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Abstract : Hainan island enjoys a long history, but Hainan province is the youngest province of the People's Republic of China. The province has the smallest land area but the biggest ocean area of any province in China. As the largest island of Hainan province, Hainan island, like a pearl, is mounted in the vast blue water of South China Sea. With tropical resort resources, Hainan island has radiant sunshine, soft sandy beaches, blowing sea breeze, the relaxing and healthy spa, wonderful folkways of minority nationality and various animals and plants. In addition, it also possesses plenty of natural, mineral, plants and aquatic resources.

Key Words : Hainan island, Nature, Environment, China

Introduction

Hainan province (abbreviated as Qiong) is the southernmost and smallest province of the People's Republic of China, located at the southernmost end of the country. “Hainan” which literally means “South of the Sea”, is a province off the southern coast of China in the South China Sea, which is composed of the Hainan Island, Xisha Islands, Nansha Islands and Zhongsha Islands, the largest of which is Hainan Island. It is not only the southernmost province in all of China, but also, with an area of roughly 13,200 square miles, it is the smallest. And when speaking of “Hainan” in Chinese, it is usually Hainan Island that is referred to. To emphasize the referent as a province, one says Hainan Sheng (“Hainan Province”).

History

About 6,000 years ago, there were ancient people living in present Hainan area. Hainan first enters written Chinese history in 110 BC, when the Han Dynasty established a military garrison there. Settlement by mainlanders was slow however and from early on the island was considered to be fit only for exiles. It was in this period that the Li people arrived from Guangxi Province and displaced the island's aboriginal Austronesian-speaking peoples.

Under the Song Dynasty, Hainan came under the control of Guangxi Province, and for the first time large numbers of Han Chinese arrived, settling mostly in the north. Under the Yuan Dynasty (AD 1206-1368) it became an independent province, but was placed under Guangdong Province during the Ming Dynasty in 1370. In the sixteenth and seventeenth centuries, large numbers of Han from Fujian and Guangdong began migrating to Hainan, pushing the Li into the highlands in the southern half of the island. In the eighteenth century, the Li rebelled against the government, which responded by bringing in

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mercenaries from the Miao people regions of Guizhou Province. Many of the Miao settled on the island and their descendants live in the western highlands to this day.

On May 1, 1950, under the PRC, the Special Administrative Region became an Administrative Region Office, a branch of the Guangdong provincial government. On October 1, 1984, it became the Hainan Administrative Region, with a People's Government, and finally as province separate from Guangdong four years later.

In 1988 Hainan was declared a Special Economic Zone, splitting from Guangdong province to become its own province.

Geographic

Hainan Province is situated in the southernmost corner of China, Hainan island at $18^{\circ} 10' \sim 20^{\circ} 10' \text{ N}$ latitude and $108^{\circ} 37' \sim 111^{\circ} 03' \text{ E}$ longitude takes the shape of a large oval pear, being in tropical and subtropical zones. The length from northeast to southwest is about 290 kilometers, and the width from northwest to southeast is about 180 kilometers, with a total area of 33900 square kilometers. It faces Leizhou Peninsula across Qiongzhou Channel to the north, Vietnam across the North Bay to the west, and Malaysia and Indonesia across the South China Sea to the south, and is closely joined by the South China Sea and islands. (Picture1)



Picture 1. The map of China (Hainan province is situated in the southernmost corner of China)

Hainan Province's jurisdiction area covers the reefs and marintime area of Hainan Island, Xisha, Zhongsha and Nansha islands, thus it is the largest province in terms of jurisdiction coverage. The land of the whole province (mainly consists of Hainan Island, Xisha, Zhongsha, and Nansha Islands) occupies a total area of 35400 square kilometers, and the surrounding sea area totals 15900 square kilometers.

Topography

Hainan Island is a vaulted mountain which is high in the middle with lower elevations on its surrounding areas, thus the Hainan island takes the shape of mountainous vault where the Five Fingers Mountain (Wuzhishan) and the Parrot Mountain range are the hunch part (Picture 2), gradually

descending outwards from the center. The island is made up of by mountainous regions, rugged hills, terraces, and plains with clear stratified physiognomy in the shape of loop. Mountainous regions and hills take up 38.7% of the whole island, and are the main features of physiognomy in the island. The province has 154 rivers flowing into the sea, the top three of which are the Nandu River, the Changhua River and the Wanquan River. Mostly the coasts are accumulated from eroded volcano basalt in the terraces, evolved from low vale to small bay or accumulated coasts, and layered coasts formed by sand banks. Its coastlines is 1528 kilometers long with sandy beaches. Tropical mangrove and coral reef coasts feature the coastal ecosystem.



Five Fingers Mountain



Jianfeng Mountain



Seven-fairies Mountain

Picture 2. The mountains of Hainan province

Population and Administrative Division

Hainan has a permanent residence of 8.45 million people, over 1.32 million are ethnic minority. The Li and Miao minority nationalities comprise a large proportion of the minority population.

Hainan province is divided into 2 prefecture-level cities (Haikou city and Sanya city), 6 county-level cities (Wuzhishang city, Qionghai city, Danzhou city, Wenchang city, Wanning city and Dongfang city), 4 counties (Dingan county, Tunchang county, Chengmai county and Lingao county) and 6 autonomous counties (Baisha Li nationality autonomous county, Changjiang Li nationality autonomous county, Ledong Li nationality autonomous county, Lingshui Li nationality autonomous county, Baoting Li and miao nationalities autonomous county, and Qiongzong Li and miao nationalities autonomous county). (Picture 3)



Picture 3. The map of Hainan province

Natural condition

Climate -- Being a tropical island, Hainan enjoys the tropical monsoon climate that contributes to spring-like warm winter and pleasant summer. The annual temperature is 23.8 degree Celsius (Table 1) and annual rainfall 1500-1600mm, Hainan island has monsoon tropical climate. More than 300 days of a year are sunny days. Due to the above-mentioned climate, Hainan is a good place of escaping cold, enjoying summer heat, having holidays and traveling. And rates of coronary heart disease, asthma and cerebrovascular diseases are much lower than that in the cold northern parts of the country.

The best time to visit Hainan is between November to March, as summers are typically hot and muggy with the threat of late-summer typhoons. Humid year-round, Hainan's monsoon climate ensures heavy annual precipitation, though approximately 70% of the island's rains fall in the summer months.

In January and February, the temperatures drop to average highs of a rather balmy 21°C; July and August reach steamy average highs of 29°C. Except for inland mountainous regions, the daily average temperature in Hainan remains above 10°C. The summer in the north is especially hot, frequently reaching 35°C with high humidity.

Table 1. The average temperature of two main cities of Hainan province (°C)

city	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Dec.	Dec.
Haikou	17.2	18.2	21.6	24.9	27.4	28.1	28.4	27.7	26.8	24.8	21.8	18.7
Sanya	20.9	21.9	24.1	26.4	28.2	28.5	28.4	27.9	27.2	25.9	24.0	22.0

Natural resource -- The climate in Hainan is of the tropical monsoon and tropical ocean type. It is hot and warm all the year round with plenty of rainfall. Tropical storms and typhoons frequent the island in autumn. Located in the tropical and equatorial belt, Hainan has abundant sunshine, warmth and water. Hainan's plentiful sunshine boasts a remarkably diverse ground for animals and plant life. It is home to 4,680 species of vegetation. More than 600 wild plants grow only in Hainan, over 50 of which are classified as state protected endangered species (Picture 4). There are over 561 species of animals, including 102 types of wild life under state special protection. BlackCrown Gibbon monkeys and Hainan Eldi's Deer are exclusive to Hainan (Picture 5). Moreover, it has great mineral reserves and is rich in oil and natural gas. Among the proven deposits of minerals, iron ore and arenaceous quartz deposits rank the first in importance in China; natural gas, zirconium, nitrogenous fertilizer rock and gems the second; titanium the third; and oil-shale the fourth. Tourism has become a leading industry in Hainan.



Sindora



Arenga



Cephalotaxus sinensis

Homalium hainanensis
Gagnep

Picture 4. State protected endangered plants in Hainan



BlackCrown Gibbon monkeys



Hainan Eldi's Deer

Picture 5. State protected endangered animals in Hainan

Air quality -- Hainan's air quality is the best in China. According to data gathered by some world environmental protection organizations, both Haikou and Sanya are listed among the top 10 cities in the world for best air quality.

Water quality -- With evergreen mountains and clear water, Hainan has some of the best surface and offshore water quality in China.

Forest coverage rate -- In 1998, Hainan took the lead in proposing a strategy to build a Province of Sound Ecology. Presently, the forest coverage represents 56.7% of the island's superfcy, and consists of five tropical primitive forests which are: Wuzhi Mountain, Bawang Mountain, Jianfeng Mountain, Diaoluo Mountain and Limu Mountain.

Economic development

Before Hainan became a province, agriculture was the main industry. After becoming a province, the economic structure gradually evolved toward a healthy balance between primary, secondary and tertiary sectors. In 2007, its GDP was RMB 123 billion, an impressive 11.6% increase upon the previous year, averages RMB 11,000 per capita; the financial income was about RMB 15.24 billion; the trade volume was up to \$7.36 billion. The actual utilization of foreign capital reached \$1.13 billion.

Tourism -- Hainan has rich tourist resources with its own unique specialties (Picture 6). The views

along coastline are of different kinds and varieties. The mountains and their peaks link with one another, whose shape is fantastic and overall view majestic. Great rivers are waterfalls and reservoirs also provide pretty scenery. Rivers like Nandu River, Changhua River, Wanquan River coexist with shoals and ponds. The rivers are meandering and the water in them is clear, so are favorable for sightseeing.

As the only tropical province in China, Hainan is blessed with charming tropical island landscape and a pleasant climate, contributing to its unique folklore and culture. It is known as a Chinese all-season garden and a holiday resort for all Chinese.

Tourism is now shaping up to accommodate holidaying tourists, featuring along with the tropical seashore vacationing, spas, golf, scuba diving, tropical animals and plants sites, characteristic foods (Picture 7) and the Li (Picture 8) and Miao folklore tours.



Yalong Bay, Sanya



The Ends of the Earth



A Pillar Piercing into the Southern Sky



coconut trees, Wenchang city

Picture 6. The scenery of Hainan province



Whenchang Chicken



Dongshan Mutton



Jiaji Duck



Hele Crab

Picture 7. The food of Hainan province



Picture 8. The Li people's lives

Agriculture -- Hainan Province is the largest "tropical treasure zone" in China, with 3.5354 hectares' arable land, which takes up 42.5% of the total arable land in the tropical area all over the country.

As the largest natural greenhouse of China, Hainan is an important production base for winter vegetables and fruits. Together with the booming of cash crops, including rubber, coconuts, round

pepper, coffee, it has given shape to a unique agricultural framework in Hainan (Picture 9).

Hainan's tropical climate creates advantages for its breeding base in Nanfan. Since the founding of the People's Republic, most of the 5000-strong China agricultural species are present in Hainan.



Rubber trees

Coconut tree

round pepper tree

Coffee trees

Picture 9. The cash crops of Hainan province

Hainan is the most important tropical fruit production base and seeds-breeding base in the country. The island supplies 100 million kg of fine grain seeds annually. Hainan is one of the largest banana producers in China with an annual output of nearly 1 million tons. Besides, the province also takes significant role in production of herbal medicines in the country.

Industry -- Currently, newly established industries such as automotive, pharmaceutical, petrochemical, natural gas, and beverage are growing rapidly. Some of the key projects, including the Fudao Chemical Fertilizer Second Phase, a 10-billion-Yuan joint venture invested mainly by the Chinese National Offshore Oil Corp (CNOOC), the natural gas pipeline connecting Dongfang, Yangpu and Haikou, the innovative Yangpu Power Plant and the 600,000-ton methanol project, are having a major impact.

In the short term, Hainan fosters a strategy of introducing important enterprises and projects in order to speed up the new industrialization. It will provide more incentives for key industries such as the exploration and processing of natural gas, petrochemicals, pulp and paper and auto manufacturing. Hainan will also encourage the development of new pillar industries such as the breeding of bio-pharmaceuticals and processing of agricultural products.

To sum up

As Hainan province lies between the tropical and subtropics , there are rich natural resources as well as natural landscape of tropical island, natural flavor, geothermal hot spring, cultural relics and rare animals and plants on Hainan. According to the preliminary investigation, the available tourist resources of Hainan island are of 241 spots of 11 kinds totally. All the domestic and foreign exports and tourists are enchanted by the blue sky, white clouds, bright sunshine, long coastline and many bays, white sandy beaches, coconut scenery and charming sea of Hainan island.

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中国海南省の自然と環境

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抄 録：中国の海南省における自然と環境について紹介した。海南島は島全体で海南省を構成する。常夏のリゾートアイランドとして開発が進んでいる。島内には中国一の美しいビーチがあり、ヤシやマンゴーなどの熱帯植物が茂り、様々な動物がみられ、自然豊かな環境である。

キーワード：中国海南島、自然、環境

摘要：作为中国最年轻省份的海南省，其陆地面积是中国最小的，但海洋面积确是中国最大的。海南省最大的岛屿是海南岛，海南岛历史悠久，其就像一颗明珠，镶嵌在碧海蓝天的中国南海边上。海南地处热带和亚热带地区，阳光充足，四季温暖，雨水充沛，温育着大量的动植物，其中有些是海南特有的和濒危的生物；得益于海南的生态省策略，其空气和水质量都是中国最优良；海南地产丰富，拥有大量的矿产和天然气资源。

得益于得天独厚的气候和自然及人文优势，旅游业现也成为海南省新的经济增长点，每年许多中外游客在海南旅游，享受海南的独特的人文和自然景观；农业还是海南省的重要产业，海南盛产热带作物和热带水果及瓜菜，其产品享誉国内外，具有较高的知名度；新兴的工业产业，诸如汽车、制药、石化、天然气和饮料等在海南迅速兴起，成为海南省具有很大潜力的经济增长产业。

关键词： 中国海南岛；自然；环境

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