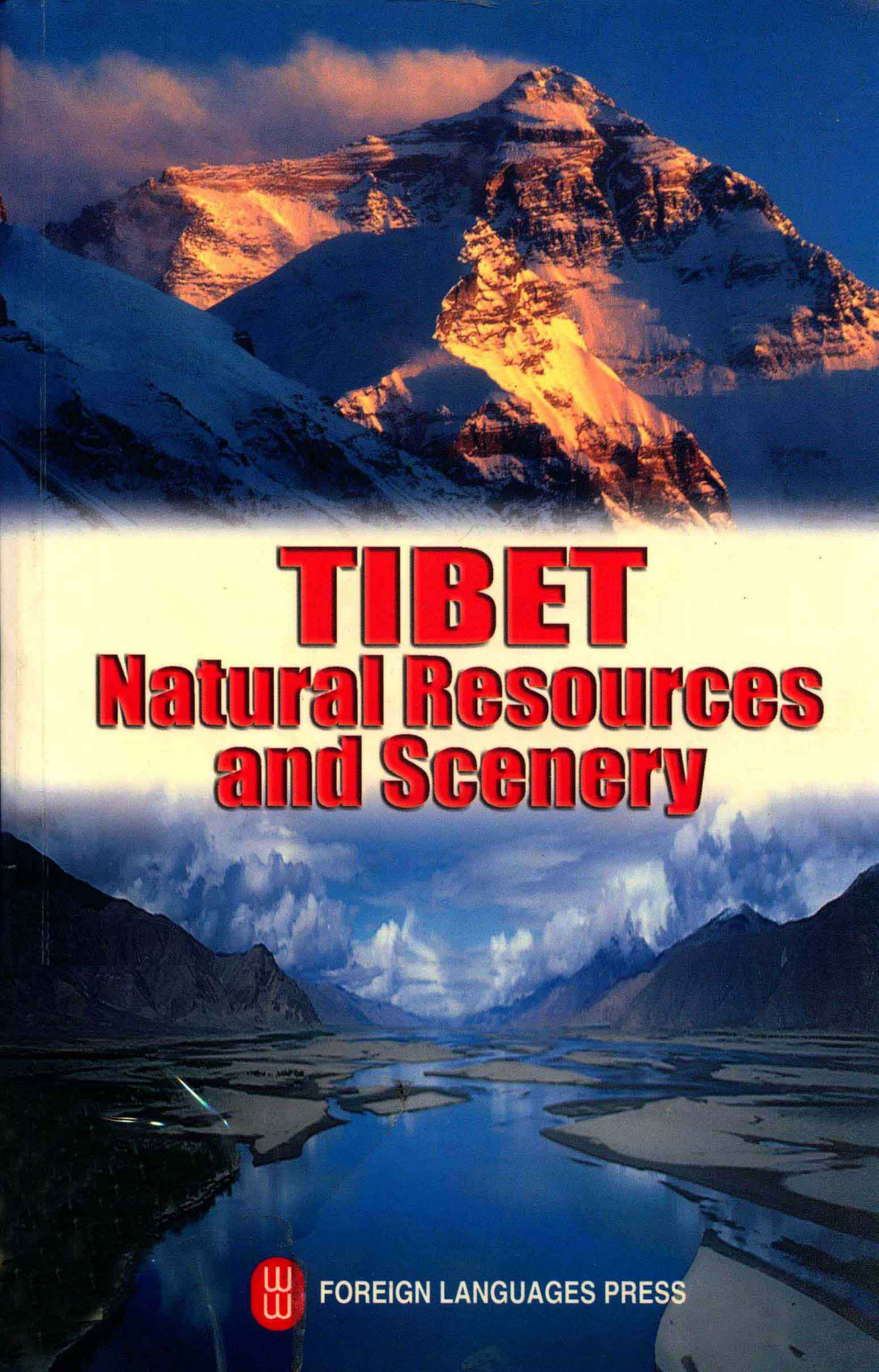

TIBET
Natural Resources and Scenery

FOREIGN LANGUAGES PRESS

TIBET: Natural Resources and Scenery

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FOREIGN LANGUAGES PRESS

First Edition 2005

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ISBN 7-119-03454-5

Published by Foreign Languages Press
24 Baiwanzhuang Road, Beijing 100037, China
Distributed by China International Book Trading Corporation
35 Chegongzhuang Xilu, Beijing 100044, China
P.O. Box 399, Beijing, China
Printed in the People's Republic of China

图书在版编目（CIP）数据

西藏自然资源与自然风光 /李明森 杨逸畴 著.
—北京：外文出版社，2003.12
（西藏基本情况丛书）
ISBN 7－119－03454－5
I. 西… II. ①李…②杨… III. 自然地理—概况—西藏—英文
IV. P942.75
中国版本图书馆 CIP 数据核字（2003）第 090578 号

英文翻译 王宗引
英文审定 李振国
摄　　影 杨逸畴 李明森 张词祖 和桂华 杜泽泉
奚志农 卯晓岚 金志国 邵小川
责任编辑 蔡莉莉
装帧设计 蔡　荣
印刷监制 冯　浩

西藏自然资源与自然风光

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外文出版社出版
（中国北京百万庄大街 24 号）
邮政编码　100037
外文出版社网址 http://www.flp.com.cn
外文出版社电子信箱: info@flp.com.cn
sales@flp.com.cn
北京京都六环印刷厂 印刷
中国国际图书贸易总公司发行
（中国北京车公庄西路 35 号）
北京邮政信箱第 399 号　邮政编码　100044
2005 年（大 32 开）第 1 版
2005 年第 1 版第 1 次印刷
（英）
ISBN 7－119－03454－5
06200
17－E－3588 P

CONTENTS

One

GENERAL DESCRIPTION

To many, Tibet is a place full of attractions. It has lofty snow-capped peaks, vast expanses of highland pastures, emerald-green lakes of all sizes and a wide variety of wild creatures that roam the highlands. It is also rich in natural resources. Besides, there is a unique "pureness" about Tibet's natural beauty, and the region's mysteriousness is enhanced by its remoteness, which has long been a great appeal to travelers and explorers all over the world.

Tibet was called "Tubo" by ethnic Chinese during the Tang (618-907) and Song (960-1279) dynasties, and "Wusizang" (the Han language transliteration of "Dbus-Gtsang") during the Yuan (1206-1368) and Ming (1368-1644) dynasties. Although it was also referred to as "Tanggute" and "Tubote" during the Qing dynasty (1644-1911), the name "Xizang" has been consistently used since the reign of Qing Emperor Kangxi (1662-1722).

Now an autonomous region of the People's Republic of China, Tibet lies on the country's southwestern border between 26°50'-36°53' N and 78°25'-99°06' E. It covers an area of more than 1.2 million sq km, accounting for about one eighth of the national territory, and ranking second in size after the Xinjiang Uygur Autonomous Region among China's provinces and autonomous

Location of the Tibet Autonomous Region on the Map of China.

Map of administrative divisions of the Tibet Autonomous Region.

regions. It borders Xinjiang and Qinghai to the north, Sichuan and Yunnan to the east and southeast, and Myanmar, India, Sikkim, Bhutan and Nepal as well as the Kashmir region to the south and west.

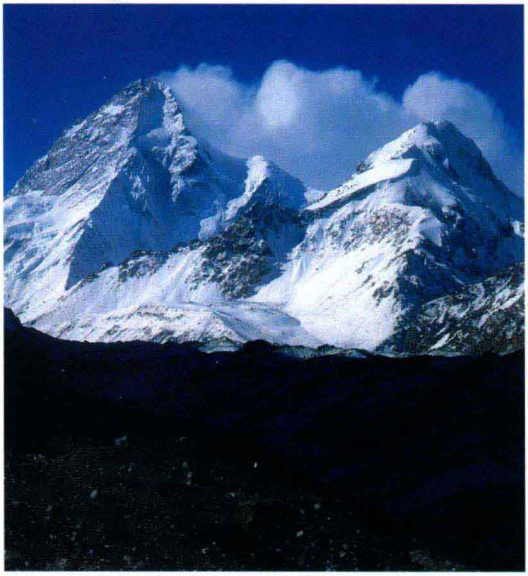
Under the jurisdiction of the Tibet Autonomous Region are six prefectures, namely, Shannan (Lhoka), Nyingchi, Ngari, Xigaze (Shigatse), Nagqu and Qamdo, and two cities, namely, Lhasa (prefectural level) and Xigaze (county level), with 71 counties under them. Apart from Lhasa, the capital of the autonomous region, and Xigaze, the region's second largest city, other towns in the region include Qamdo, Zetang, Bayi, Nagqu, Shiquanhe, Gyangze and Zham.

I. The Breath-taking Scenery of the "Roof of the World"

The Qinghai-Tibet Plateau is the youngest, largest and highest plateau in the world; hence it is sometimes called the "Roof of the World" and the "Third Pole of the Earth". It is an ideal tourism destination for lovers of nature and ecological tours.

Tibet forms the main part of the Qinghai-Tibet Plateau. Hence, it is also called the Tibetan Plateau. It is bordered to the north by the Kunlun Mountains that extend hundreds of km, and their branch range, the Tanggula (Dangla) Mountains; its southern border is formed by the youngest, biggest and highest mountain range on earth, the Himalayas; its western border is formed by the steep Karakorum Mountains; and its eastern border by the Hengduan Mountains featuring towering cliffs and deep gorges. Traversing the region from east to west is the Gangdise-Nyainqentanglha Range and its branch

Magnificent and charming landscape of the "Land of Snows."


Mount Qogir, the world's second-highest peak.

ranges, with an average altitude exceeding 4,000 m. More than 50 mountains in Tibet stand 7,000 m and more above sea level, ten of which are snow-capped peaks over 8,000 m above sea level. The highest of them all is Mount Qomolangma, renowned not only for its height, but also for its unique scenery. The whole plateau decreases in elevation from northwest to southeast, featuring diverse and complex terrains and kaleidoscopic scenery, with high and meandering mountain ranges, precipitous and deep gorges, glaciers, rocky cliffs, deserts and other types of land forms, and a great variety of rare plants and wild animals belonging to the frigid, temperate, subtropical and tropical zones. One also finds such natural phenomena as altitudinal distribution of the four seasons on the same mountain, and different climates in areas only five km apart.

The sky in Tibet is always blue, and the air exhilarating. The climate is unique, complex and diverse, due to terrain, topography and atmospheric environment. Generally speaking, the temperature is low, due to the high altitude, and can vary considerably in a 24-hour period. The air is thin and the precipitation is on the low side, with distinctively dry and wet seasons as well as plentiful sunshine. The climate differs greatly between the northern and southern parts of Tibet. Under the influence of the warm and wet air currents from the In-

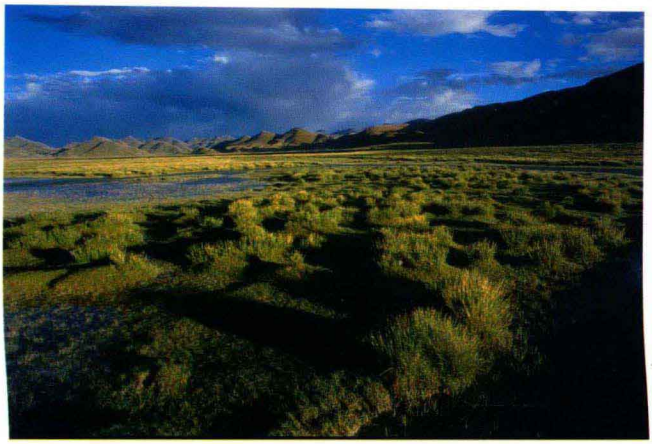
dian Ocean, the valleys in southern Tibet are mild in climate and enjoy ample rainfall, with the average annual temperature standing at eight degrees centigrade, the lowest monthly temperature averaging minus 16 degrees centigrade, the highest exceeding 16 degrees centigrade, and the May-September period being the monsoon season. The climate on the northern Tibet Plateau is typically continental, with the average annual temperature staying below zero centigrade, the frost period lasting as long as half a year and the temperature — even in the warmest month of July — not exceeding 10 degrees centigrade. From June to August, the climate is generally milder. In the

Tibet has many lakes of various sizes, mostly salt-water lakes.

monsoon season it often rains at night. There are strong winds in winter and spring. In terms of climate, the most suitable season to tour Tibet is March to October, with the June-September period being the best.

The mountains and pastures in Tibet are dotted with 1,500 lakes of all sizes and descriptions, which account for about 30 percent of the total area of the lakes in China. There are 787 lakes each exceeding one sq km in area. The best-known of these are Nam Co, Yamzho Yumco, Mapam Yumco and Bangong Co. Tibet is crisscrossed with rivers, including the world-renowned Yarlung Zangbo River and its tributaries the Lhasa River, the Nyangqu River and the Nyang River. Tibet nurtures the Nujiang River (the Salween), important tributaries of the upper streams of the Yangtze and Lancang (the Mekong) rivers, the Sengge Zangbo river (also called the Shiquan river, the trunk of the upper stream of the Indus), the Langqen Zangbo river (also called the Xiangquan or Elephant River, the trunk of the upper stream of the Sutlej), as well as some inland rivers.

Tibet is rich in forest and pastoral resources, with the forest area in the eastern part of the region forming an integral whole with the western Sichuan-



Tibetan wetlands are full of life.

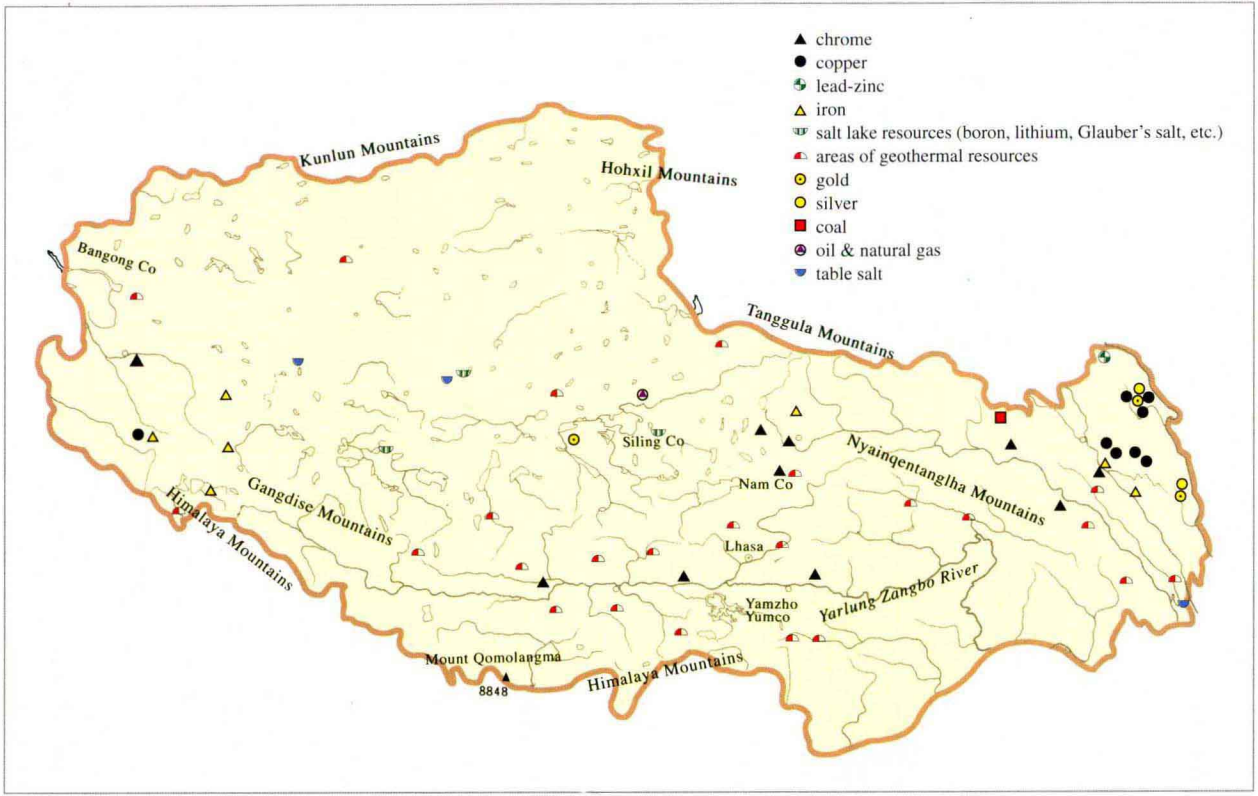
northwestern Yunnan forest area. The region ranks fourth in terms of forested area in China and, being one of the five major grazing grounds in the country, the first in terms of acreage of natural pastures.

II. Diverse Natural Resources

(1) Mineral Resources

The Tibet Autonomous Region is one of the areas with the richest mineral resources in China. There are 94 known varieties of minerals, and the reserves of 47 have been verified, with copper and chrome iron deposits and salt lake resources being the dominant minerals. Copper deposits together with other minerals are scattered on the middle reaches of the Yarlung Zangbo in the eastern and southern parts of Tibet.

Tibet boasts the largest number of salt lakes in the world — 250, comprising a total area of 8,000 sq km. The region is a major producer of salt products in



Distribution of major mineral deposits in Tibet.

China, and was the first place in the world to discover and utilize borax from salt lakes.

In addition, oil and natural gas have been discovered in northern Tibet.

(2) Abundant Hydro and Geothermal Energy Resources

Tibet's many rivers and lakes make the region rich in water power. The Yarlung Zangbo, Lancang, Nujiang and other rivers rush down from heights of several thousand m, with big drops, the maximum specific drop amounting to 62 m per m at some sections of the rivers (the lower reaches of the Yarlung Zangbo, for instance). All these rivers have a large volume of water flow, giving the autonomous region a gift of immense hydroelectric potential. The average energy capacity per unit length of the major rivers is 13 to 40 mw per km, and can reach as high as 290 mw per km at some sections along the lower reaches of the Yarlung Zangbo, which is rarely seen elsewhere in the world. Incomplete statistics put the total natural hydroelectric potential throughout the autonomous region at 200,000 mw — about 30 percent of the national total, ranking first nationwide. The generating capacity of the utilizable hydroelectric potential can reach approximately 56,590 mw, with an annual output of 330,000 million kwh, accounting for approximately 17.1 percent of the national total. The average per-capita utilizable hydroelectric potential in Tibet is nearly 60 times the national average.

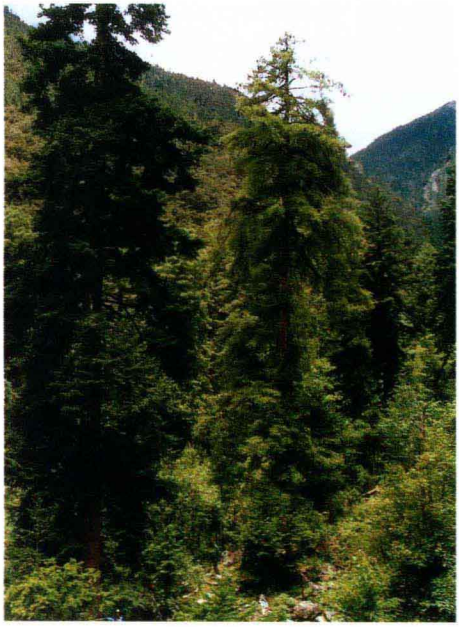
Located on the Himalayan section of the round-the-globe geothermal band, the Tibetan plateau has the largest reserves of geothermal energy resources in China. A total of 660 spots indicating various hydrothermal activities have been found there. These include hydrothermal explosions, geysers, boiling springs, hot springs, steam zones and sinters. According to preliminary surveys conducted by the Chinese Academy of Sciences on 330 such spots, the

total water flow of the hot springs is 20,000 liters per second, with the total amount of thermal energy reaching 660,000 kilocalories per second, or an equivalent of three million tons of standard coal per year; and with a potential power-generating capacity exceeding 800 mw annually. The largest geothermal zone, the Yangbajain geothermal field, has been turned into China's largest geothermal power producer.

(3) Diverse Biological Resources

Tibet has vast expanses of pastures in 17 different types, notably subnival meadows and subnival grasslands that serve as good grazing grounds for highland animal husbandry. Animal species native to the highlands are yaks and Tibetan sheep.

Natural forests are found in the mountainous areas east and south of the Great Canyon of the Yarlung Zangbo. The main types of trees are pine (Pinus wallichiana), highland pine (Pinus densata), Yunnan pine, Huashan pine, Himalayan spruce, Lijiang spruce, western Sichuan spruce, purple-coned spruce, Himalayan fir, sharp-bracted fir, hemlock, large-coned sequoia, Tibetan larch, Tibetan cypress and China lavin. Among them, fir and spruce are predominant, and the reserves of these trees are huge. They are impor-



Giant firs and Huashan pines.