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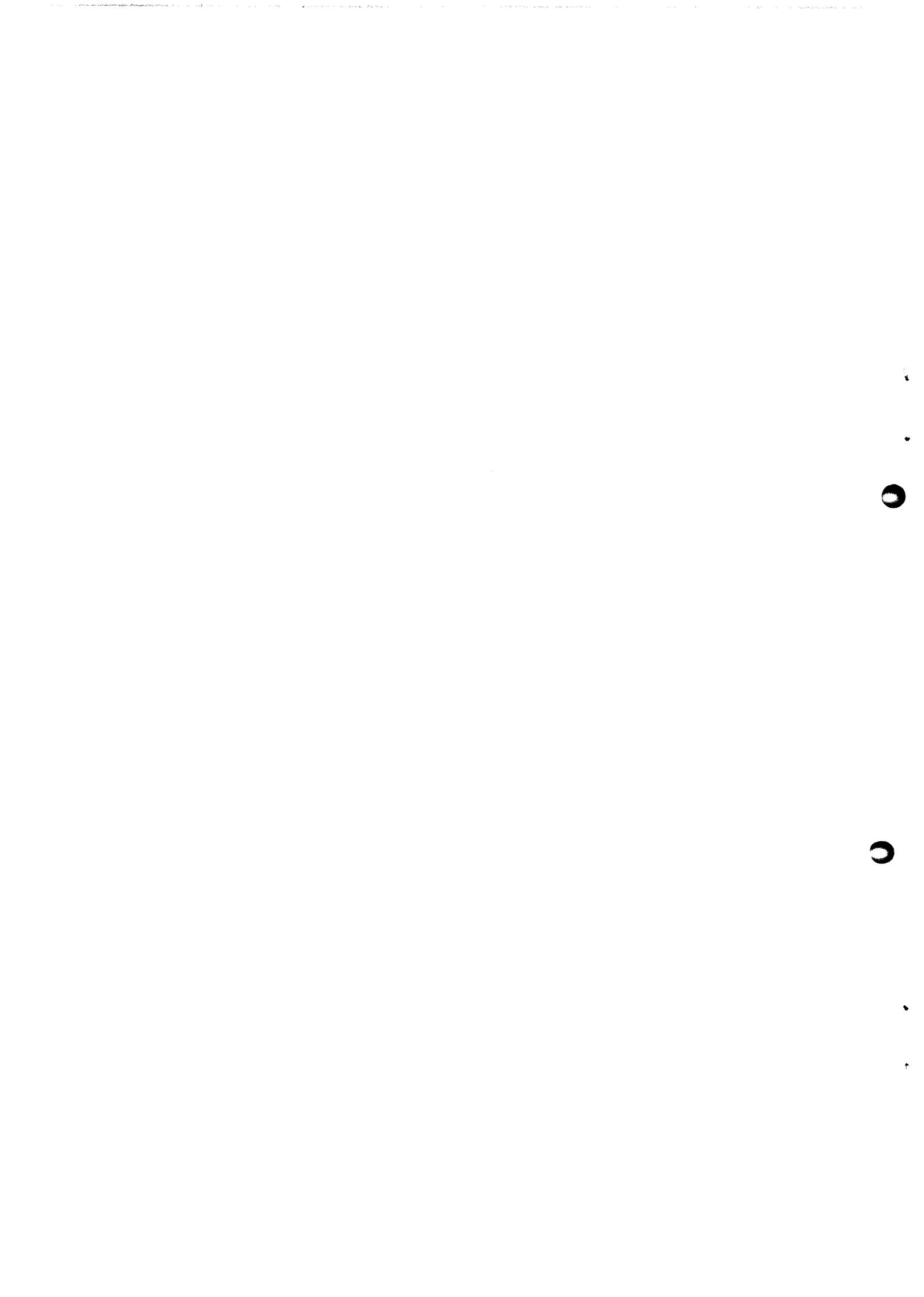
INTERNATIONAL URANIUM RESOURCES EVALUATION PROJECT

I U R E P

NATIONAL FAVOURABILITY STUDIES

SINGAPORE

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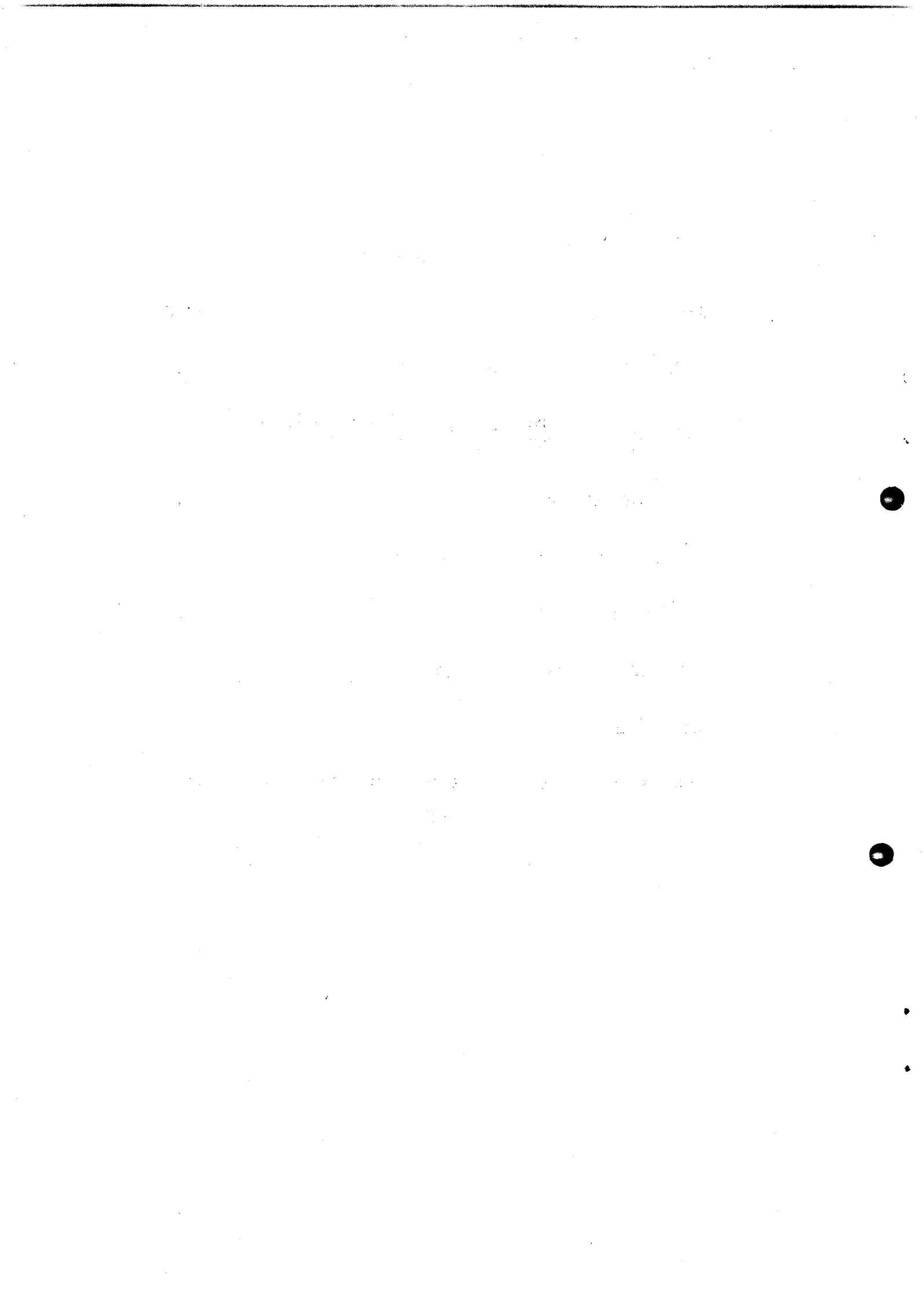
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SINGAPORE

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FIGURES No. 1 USBM -- MP-1 Mineral Perspectives -
Singapore



S U M M A R Y

Singapore's fairly small size belies its wealth which comes not from production and use of its own raw materials including mineral products, but from importing raw materials and using them in manufacturing and refining.

The state has a granite core exposed in the center of the island covered on the west by quartzites and shales, and on the east by recent detritus. There is no mining industry and no uranium potential is assigned to Singapore.

A. INTRODUCTION AND GENERAL GEOGRAPHY

Geography

Singapore island with an area of 600 sq km, is situated at the southern end of the Malay peninsula with which it is connected by a rail and road causeway across the Johore strait. The island, bounded south by the Singapore strait, is roughly diamond shaped 42 km by 23 km with an area of 597 sq km and a midpoint of latitude 1° 22' N, 103° 50' E. Within the state are about 40 small islands totaling 39 sq km. Until 1941, with Malacca and Penang Singapore formed the British colony called the Straits Settlements.

Singapore owes much of its wealth and continued prosperity to its focal position in southeast Asia on international sea and air routes. Its strategic position and deepwater harbour have enabled the city of Singapore to become the largest port in southeast Asia the natural outlet for the products of the Malay peninsula and one of the world's greatest commercial centres.

A quarter of the island is lower than 8m and mangrove swamps fringe the coast extending inland and almost dividing the surface into three islands

Climate

The climate is equatorial with temperatures throughout the year varying a few degrees either side of the 28° C mean. There is no well-defined wet or dry season and the annual rainfall of 240 cm is evenly distributed throughout the year. Prevailing winds are from the northeast from November to February and from the south during May to August, but strong daily land and sea breezes maintain agreeable physiological conditions. Heavy rains and high seas come during the northeasterlies, from which the harbour is well protected.

Transportation

Singapore is the largest port in south-east Asia, and is used by more than 200 major shipping lines. A new container port became fully operational in late 1973.

At the end of 1975 there were 2,167 km of roads, of which 1,716 km were asphalt-paved. The road system includes dual carriage-ways, flyovers and expressways. Singapore international airport at Payar Lebar has been expanded to handle Boeing 747s. By the end of 1976 work had started on the building of a new international airport at Changi.

Industry

Singapore is a world trade center and, storage and trans-shipment of goods all over the world is a major industry.

Manufacturing has become an increasingly significant sector of the economy. The principal industries are petroleum refining, ship-building and repairing, textiles and electronics. Manufacturing employs about 26 per cent of the labour force.

Although Singapore has no petroleum reserves of its own, oil plays a vital role in the economy. Singapore has the third largest refining complex in the world. Oil is the principal import and oil products are the main export. In 1973 chemical and petroleum products contributed more than 25 per cent of manufacturing output.

There is no substantial mining industry - most is quarrying of road metal and building material.

Population and Currency

The population of Singapore was estimated at 2,278,200 people in mid 1976, 76 percent of whom are Chinese. Singapore city is the largest population center with 1.4 million. The unit of currency is the Singapore dollar and US \$1.00 = S\$ 2.46 in December 1976.

B. GEOLOGY OF SINGAPORE IN RELATION TO POTENTIALLY FAVOURABLE URANIUM BEARING AREAS

An outlier of rocks and structures running through the Malay peninsula, Singapore has a central granite zone culminating in Bukit Timah (180 km) west of which Triassic quartzites and shales dip to the southwest and form low degraded scarps which are eroded into hills aligned in a northwest-southeast direction with steepest ridge behind Pasir Panjang. East of the granite zone lies a mass of weathered detritus averaging 30 m in height. Weathered red and yellow lateritic soils and thick iron pan cap all rocks.

Geologically, Singapore does not appear to be interesting for uranium potential, or for any other mineral product for that matter. Virtually all mineral raw material (except granite) are imported.

C. PAST EXPLORATION

There has been no known uranium exploration in the past in Singapore.

D. URANIUM OCCURRENCES AND RESOURCES

There are no known uranium occurrences, and no uranium resources have ever been reported in Singapore.

E. PRESENT STATUS OF EXPLORATION

There is no known uranium exploration programme in Singapore.

F. POTENTIAL FOR NEW DISCOVERIES

Geologically, there appears to be little basis for estimating a uranium potential, therefore, no potential is assigned.

Compiled by M V Hansen
IAEA
Vienna
December 1977

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1947

1. The first part of the report is devoted to a general survey of the situation in the country. It is followed by a detailed analysis of the economic and social conditions. The report concludes with a series of recommendations for the government and the people.

2. The second part of the report deals with the specific measures that have been taken to improve the situation. It discusses the progress made in various fields and the challenges that remain. The report also includes a list of the names of the officials responsible for the implementation of these measures.

3. The third part of the report is a summary of the findings and conclusions. It highlights the key points of the report and provides a clear overview of the situation. The report is intended to provide a comprehensive and accurate picture of the country's current state.

4. The fourth part of the report is a list of the sources of information used in the report. It includes a list of the names of the officials who provided the information and a list of the documents and reports that were consulted. The report is intended to provide a clear and concise summary of the information used in the report.

5. The fifth part of the report is a list of the names of the officials who were involved in the preparation of the report. It includes the names of the officials who provided the information and the names of the officials who were responsible for the preparation of the report. The report is intended to provide a clear and concise summary of the information used in the report.

6. The sixth part of the report is a list of the names of the officials who were involved in the implementation of the measures. It includes the names of the officials who were responsible for the implementation of the measures and the names of the officials who were involved in the implementation of the measures. The report is intended to provide a clear and concise summary of the information used in the report.

SINGAPORE

AREA 586 sq km

POPULATION 2.2 million

