

development continues in the developing and underdeveloped countries, a resumption in the demand pattern is likely. This economic growth will need increasing amounts of energy over the remainder of this decade and the majority of that requirement will be met by oil and gas, although other forms of energy will have more rapid growth. Despite the current "oversupply" condition, exploration and development expenditures have continued to grow and have been rewarded by additional discoveries such as in Mexico, the North Sea, offshore Indonesia and North America.

In Indonesia, exploration and development expenditures are at an all-time high and the success ratio is considered above average; secondary recovery projects are underway; production of oil is again on the increase after a slight falling off since 1978. However, the rate of growth of domestic requirement for oil is tapering off as higher selling prices have been fixed and as diversification to other forms of energy have shown positive results.

Indonesia will continue to be an oil and gas exporter throughout the 1980s, but not in significant quantities relative to total world requirements. In the Pacific Basin, however, Indonesia is the leading exporter and is likely to continue in that capacity. As a member of ASEAN, Indonesia has been especially responsive to the needs of the other member countries.

Indonesia's contribution to the development of modern oil industry practices have also been meaningful. The production sharing concept, which was pioneered in Indonesia, was later adopted by many other host countries. This form of contract established the basis for cooperation and trust between the parties.

Having oil and gas resources is both an opportunity and a responsibility. Indonesia intends to make the most of the opportunity by exporting as much oil and gas as possible, but only in a responsible way by providing a steady and reliable source of supply to its neighbors in the Pacific Basin region.

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Continental Margin Around Western Coral Sea Basin: Structural Elements, Seismic Sequences, and Petroleum Geological Aspects

Surveys across the western Coral Sea Basin during 1978 and 1980-81 by the Federal Institute for Geosciences and Natural Resources, F.R. Germany, in cooperation with the Australian Bureau of Mineral Resources, have provided new information on the change from continental to oceanic crust in this area.

The opposing margins of the Queensland and Papuan Plateaus are underlain by part of a complex rift zone which would have been up to 50 mi (80 km) wide prior to continental break up. Marginal or "outer" basement highs, which appear to have low angle contacts with the oceanic crust, occur in the oceanward part of the rift zone on both sides of the Coral Sea Basin. Similar highs also occur beneath the lower slope of the Eastern Plateau and within the northern Queensland Trough and the Osprey Embayment. The origin of these highs—listrically faulted and rotated continental blocks, late-stage uplifts of pre-rift rocks, or massive accumulations of volcanic rocks—and its consequences for the deposition and nature of the rift phase sediments are discussed.

The northern Queensland Trough and the western margin of the Eastern Plateau are considered to have the best petroleum potential in the region, in that they are underlain by grabens containing up to 3.1 mi (5 km) of sediments, part of which may be a Mesozoic deltaic sequence similar to that intersected in the

Anchor Cay 1 well, or a deeper water equivalent. As these depocenters generally lie in water depths greater than 6,500 ft (2,000 m), they can probably only be considered as long-term prospects. Gently folded Mesozoic sediments beneath the eastern margin of the Eastern Plateau, in water depths of just over 4,900 ft (1,500 m), may also have some petroleum potential.

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Impact of Agricultural Renewables on China's Energy Supplies

China has depended upon agricultural materials as sources of energy for many years. These sources, together with wind power, water power, and solar energy, have formed a self-sufficient energy system in the countryside.

Accompanying the progress is agricultural modernization, petroleum products and artificial fertilizers have become increasingly important agricultural inputs. Simultaneous soil depletion and losses, due to the burning off of crop residuals, have become so serious that the energy equilibrium is threatened. Therefore, a new system must be established through the application of new technology. Improvement in household furnaces, development of more efficient biogas and solar energy facilities, expansion of fuel forests, and advances in wind and water power utilization (including small hydroelectric plants) are all measures of supreme importance. Integration of these various energy resources, with one supplementing the other, will provide optimum results and ultimately alleviate the country's dependency upon commercial energy supplies. This is one of the most urgent problems facing Chinese agricultural engineers today.

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Subduction of Woodlark Spreading System at Solomon Island Arc

The initial results of a marine program sponsored by Australia, New Zealand, the United States, and CCOP/SOPAC to investigate the subduction of the Woodlark spreading system beneath the Solomon island arc can be reported. This unusual tectonic situation provides (a) a controlled experiment in which the roles of subducted oceanic crust and sediments in island arc petrogenesis can be assessed, and (b) an opportunity for determining the relation between the thermal structure of the subducted oceanic lithosphere and the thermal regime of the island arc/back arc. Station work during the 24-day cruise included dredging, coring, and digital heat flow measurements.

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The Last 200 Million Years in Eastern Asia: Yanshanian Subduction and Post-Yanshanian Extension

The pre-Yanshanian (pre-200 m.y.B.P.) geology of Asia can be interpreted as an unique record of numerous small plates, some of which were separate rifted blocks as early as 1,500 m.y.B.P. The north-south agglomeration of these blocks to form the bulk of modern Asia began in the west during the Carboniferous (Hercynian events) and climaxed in the east during