Mineral and Energy Prospects in the Small Island Nations of the South Pacific: Vanuatu a Typical Example

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A brief outline of the activities of the Committee for the Coordination of Joint Prospecting for Resources in South Pacific Offshore Areas (CCOP/SOPAC) since its inception in 1971 and of the offshore mineral prospects within the region is given first. The geology and mineral resources, both on land and offshore, of Vanuatu, a typical representative of the south Pacific island nations, are then presented. Finally, the CCOP/SOPAC work program to 1984 is summarized and the future institutional arrangements for CCOP/SOPAC discussed.

CCOP/SOPAC: A BRIEF OUTLINE

Origins and Aims
The mineral resource potential of the shelves, platforms, and ocean floor of the south Pacific has long been recognized since the discovery in the region of deposits such as detrital heavy mineral sands and manganese nodules and of oil seepages in Tonga in 1968. Also recognized, given the lack of available technical skills in the smaller island communities and the oceanic expanse to be explored, has been the need for a regional body to coordinate the necessary prospecting activity.

Such an intergovernmental body, the Committee for the Coordination of Joint Prospecting for Mineral Resources in South Pacific Areas (CCOP/SOPAC), was established in 1971 under United Nations sponsorship to investigate the mineral potential in the coastal, inshore, nearshore, and offshore areas of the member countries. The inaugural meeting took place in Suva, Fiji in 1972, and annual sessions have been held subsequently to decide upon work programs appropriate to the needs of the member countries. Currently, membership comprises the Cook Islands, Fiji, Kiribati, New Zealand, Papua New Guinea, the Solomon Islands, Tonga, Vanuatu, and Western Samoa (Figure 1). To assist in the formulation of these work programs, governments from the developed world including Australia, France, Japan, the United Kingdom, the United States, and the USSR have provided the services of marine geoscientists for a technical advisory group (TAG) to the committee.

For the implementation of the work programs (Figure 2) a technical secretariat was set up in 1974 in Suva with preparatory financial assistance from the United Nations Development Program. Additional funding was later provided in 1979 for a formal 3-year prospecting “Investigation of Mineral Potential of the South Pacific” program, and this has now been extended for a further 3 years, 1982 to 1984, at a cost of some U.S. $5 million. Other support, both in kind and as cash contributions, has been provided by the member countries and by the technical advisory group governments.

The first marine surveys were undertaken in 1977 and were directed principally at prospecting for petroleum, manganese nodules, metalliferous sediments, phosphates, and precious corals. During the last 3 years, however, the terms of reference have been extended to include the search for construction materials nearshore and coastal management studies inshore. To carry out the surveys, the technical secretariat at present has an establishment of ten professional and seven support staff.

Several joint collaborative cruises with, for example, the Office de la Recherche Scientifique et Technique Outre-Mer (ORSTOM) and NZOI have enabled the technical secretariat to implement particular prospecting programs that otherwise would have been beyond its manpower and financial resources. The most recent were those cruises carried out in April and May of this year using the two American research vessels, S.P. Lee and Kana Keoki. The principal intent of the former was an assessment of the hydrocarbon potential in offshore Fiji, Tonga, Vanuatu, and the Solomon Islands; that of the latter, a regional evaluation of mineral resources potential through a tectonic and structural study of the Northern Melanesian Borderland, the Fiji Plateau, the eastern Woodlark Basin, the Central Solomon Islands Trough, and the Solomon Islands fore-arc region. This geoscientific research, which was approved at the

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