Petrobras' investment budget for 1994 totals US\$ 2.9 billion, of which US\$ 1.12 billion is earmarked towards increased oil and gas production, and US\$ 680 million for exploration. This is a slight increase over the 1992 budget of \$US 2.3 billion, but remains far below previous allotments such as the 1988 budget of \$US 5 billion. Petrobras officials explain that the current government policy of setting diesel and fuel oil prices below cost, in order to fight inflation and stimulate economic activity, is largely to blame for the company's diminished financial resources. This is no doubt part of the answer. However, critics of the state monopoly in oil and gas, who will have their hearing in late 1994 when the Constitution is reviewed, argue that Petrobras inefficiencies and a swollen payroll are also to blame.

In several areas of oil and gas activity, Petrobras has developed world-class technology. This is particularly true in deep water exploration and production. Petrobras holds several world records in this area, including the deepest producing subsea well (781 meters) and the deepest exploratory well (1,027 meters). Both these wells are in the Marlim offshore field, which along with the Albacora field, holds great potential for future production. Petrobras engineers estimate that recoverable volumes of oil and gas in water depths between 1,000-2,000 m total 5 billion BOE. Marlim and Albacora are part of the Campos basin off Rio de Janeiro that accounts for 66% of Brazil's oil and gas production. Farther south, the Santos basin is composed predominantly of gas fields, while in north-east Brazil, new shallow water discoveries have been made in the Potiguar basin.

## **Opportunities:**

In 1994, Petrobras will concentrate on increasing production of its offshore fields in order to lower imports and make use of under-utilized refining capacity. Bids were recently completed for the conversion of the Petrobras XXV, a GVA 4000 drilling rig, into a production platform. Plans call for the construction of 3-4 additional production platforms over the next two years. Petrobras will also give top priority to enhanced recovery techniques, reservoir engineering and advanced petrophysical & geological study methods. Due to the high viscosity of oil finds in the deep water Campos basin, technologies will have to be developed to adjust Petrobras' refining profile.

In terms of environmental and pollution control, Petrobras already has one of the lowest spill records of any major oil company. Interest exists for new clean-up technologies (bacterial, etc) as well as refinery pollution control devices.

Traditional suppliers to Petrobras have been the United States (35%), United Kingdom (15%), France (15%), Germany (10%), Norway (5%) and Japan (5%). There is, therefore, strong competition from abroad to supply goods and services not sourced domestically. This competition is heightened as several foreign suppliers, including France, Germany and Japan, have the support of state export agencies whereas Canada's Export Development Corporation (EDC) is currently off-cover for most projects in Brazil.