FRANCE

Deceptively generous budget

The staff of La Recherche report from Paris on the funding for research in France in 1977

THE National Assembly and Senate of the French parliament have just approved the budget for scientific research for 1977—that is, they have approved the provisional calculations of expenditure for the 'enveloppe recherche' presented by the Minister for Industry and Research. But this budget package, since it does not take into account military research or telecommunications, is only a fabrication.

As early as the end of May last year,

the first draft of the 'enveloppe' had been strongly criticised by the consultative Committee on Scientific and Technical Research. M d'Ornano had then managed to get some adjustments to it through the Ministry of Finance. He finally obtained 10,935 million francs, an increase of 18% on last year's budget of 9,262 million francs. The major portion of this sum goes as usual to the Atomic Energy Commission (FF2,783 million), the National Centre for Space Research (FF1,014 million) and to information processing (FF725.6 million). The National Centre for Scientific Research receives FF2,555 million.

The budget is larger, however, only

because more jobs have been created. And it must be remembered that the package is already cut into by international commitments and by other expenditure unconnected with research. For the National Centre for Space Research, for example, FF586 million is reserved for multilateral programming, such as the programmes operated within the European Space Agency like Ariane, Marots and Spacelab. For information processing, on the other hand, FF450 million is allocated to CII-Honeywell-Bull.

The government has decided to create 950 new posts, of which 437 would be for research, and the rest technical or administrative. Furthermore, 900 people, 95 of them research workers, will benefit by the integration of 'hors statut' personnel. (Staff who

ISRAEL

● Israel's universities have spawned a new political party which threatens the local establishment more seriously than it has been threatened in many years. If present trends continue, the recently formed Democratic Movement of the Hebrew University archaeologist Yigael Yadin, and other reformist groups close to it, may well emerge as the strongest bloc in Israel's Knesset after the 1977 elections, perhaps even making it possible for Yadin to become the next Prime Minister. The elections are being held sooner than expected with the early end of Mr Rabin's government.

Yadin offers very little that is new in the policy sphere. Like large sections of the hitherto dominant Labour Party, he favours a compromise settlement with the Arabs, electoral reform and stringent measures to stabilise the economy. But he has the advantage of being a political outsider, untainted by the corruption and dissension that has beset Israeli public life in recent years.

This is not to say that Yadin has been an academic recluse in the quarter century since his retirement as Israel's second chief of Staff. On the contrary, his highly successful digs at Hazor in the Galilee and at Massada on the Dead Sea were well publicised, as was his service on such non-partisan bodies as the Agranat Commission (which investigated aspects of the Yom Kippur War). This makes him particularly attractive to the many Israelis who ardently desire "to throw the rascals out", but want to be sure that "the rascals" are replaced by men of experience and competence.

Yadin is by no means the only Israeli don to have played a part in public life: Israeli's first President, Dr Chaim Weizmann, was a distinguished chemist, and her current President, Professor Ephraim Katzir, headed the Weizmann Institute's Biophysics Department for many years. But the Presidency is largely a ceremonial post, and this is the only time that a savant has tried to exchange his academic robes for the powerful mantle of the Prime Minister.

● A central plank in Yadin's platform is his insistence that Israel remain a predominantly Jewish state, meaning that many of the Arab-populated areas now under Israeli control would, if he had his way, be relinquished within the framework of a peace settlement. This being the case, Yadin favours concentrating long-range development efforts on those parts of the country where the Arab population is sparse, with particular emphasis on the virtually empty Negev desert between Beersheba and Eilat.

Thanks to the discovery of a vast underground lake running from the Dead Sea to the middle of the Sinai Peninsula, it now appears that the Negev can be developed more rapidly and extensively than hitherto appeared possible. The Mekorot Water Company has carried out drillings in the wake of preliminary studies by scientists from the Ben-Gurion University of the Negev and the Weizmann Institute. Company officials speak of at least 200,000 million cubic metres of water at depths of between 800 and 1,000 metres. Initial tests indicate that the water has from 500 to 2,000 p.p.m. of minerals, which means that some of

it can be utilised immediately, while other water will have to be processed through reverse osmosis or electro-dialysis installations.

Water from the Negev 'lake' must be exploited carefully, as it is not likely to be replaced for quite some time. Most of it, according to carbon-14 dating tests, stems from the precipitation that occurred 20,000 years ago during the last Ice Age, when rainfall in the Negev averaged 1,000–3,000 mm a year, as compared to some 100 mm today.

● Rainfall now, it turns out, is heaviest where it is least needed, in Israel's urban areas. A recently completed study of climatic conditions in the Tel Aviv area over the last 30 years carried out by Dr Yair Goldreich of Bar-Ilan University and Alexander Mannes of Israel's Meteorological Service showed that rainfall had increased by 5–17% as compared to the rest of the countryside.

This study indicated that heat generated by greater radiation from concrete, asphalt and other built-up surfaces weakened the frequent temperature inversions of the air above the city, creating unstable conditions conducive to rain. At the same time, the greater currents of air caused by this heat and also by tall buildings contributed further to increased precipitation.

Another conclusion of the study was that growing air pollution in the Tel Aviv area, where population has tripled in the past 30 years, had caused a drop of 7% per decade in the amount of solar radiation reaching the ground.

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