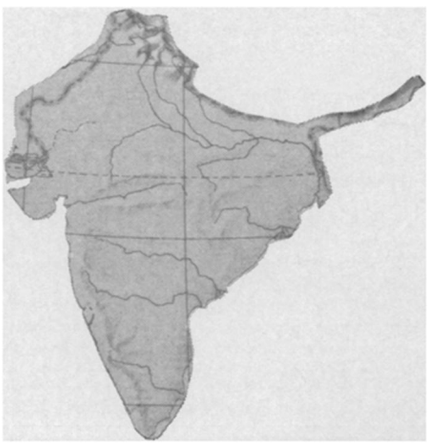
LETTER FROM BOMBAY



Using what's available

Professionals are in oversupply; prospects are dim

by S. K. Ghaswala

In 1950, three years after India became independent, there were 188,000 qualified physicians, engineers, technicians and scientists in the country. By 1968 the figure had risen to 984,000, including 530 physicists, biologists and agricultural and veterinary scientists, 332,000 engineers and technicians and 122,000 medical doctors. By the end of this year the total should be more than one million.

Superficially pleasing, these statistics are in fact dismaying. There just isn't enough to keep these highly educated Indians occupied.

Unemployment among engineers, for example, has risen from 16,500 in 1965 to 56,700 in 1968. Of these, civil engineers form the largest group, followed by mechanical and electrical engineers. Chemical and electronics engineers number less than five percent of the total.

The problem will get worse: In the current Fourth Plan economic period it is estimated that there will be 480,000 engineers in 1973-74, and employment for only 380,000.

Public sector industries are typical of the general unemployment problem: They employ few engineers and have little opportunity for advancement for those they do employ. Hindustan Steel Ltd., which controls the three giant steel plants at Durgapur, Rourkela and Bhilai, has a surplus of 9,200 engineers, Heavy Engineering and Foundry Forge plant, a surplus of 980, and Indian Oil Corp. has 2,130 too many. The total surplus in all public sector plants is nearly 15,000. The new Bokaro steel works could take a few off the surplus lists, but that won't make an appreciable dent in the oversupply.

In the private sector the position is also critical, largely because of confusion over the goals of the Fourth Plan. Industrialists say the lack of a clear-cut Government policy in the plan makes it impossible to plan for the future, and so they are unwilling to take on new engineers.

India has a large number of consulting engineering firms which could take up some of the surplus, but again Government lack of push is thwarting efforts to attack the problem. After years of talk about encouraging indigenous engineering talent and using the services of local consultants, a committee appointed three and a half years ago to look into the situation is only now coming up with recommendations.

Much of the unemployment, says the report, results from the practice of employing foreign consultants. Such consultants, expert though they may be, are invariably unfamiliar with the range of Indian talent, materials and machinery, with the result that much is imported that could be supplied locally.

To combat this tendency, says the committee, an Indian consulting firm should always be appointed as prime contractor for each new project. Adequate local consulting services exist in the fields of steel mill, heavy organic chemical, sugar, cement, paper and dock and harbor development, while partial know-how, which could be fully developed, exists for aluminum, coal-mining and fertilizer industries.

However, there are no Indian consulting firms available in such fields as smelting of copper concentrates, high-speed shaft sinking for mining and hydrometallurgical works and in petrochemicals.

On the private side, consulting firms welcome the brain drain since it spares them the agonies of letting talented technical personnel stand idle. In the past year one Calcutta firm had to let 100 of its 600 engineers go; nearly 50 of them emigrated.

What are the remedies? At a recent meeting of the Indian Roads and Transport Development Association, A. B. Parakh, its president, suggested that Government should speed up its stagnating road-construction projects. Out of a total of $7,000 million marked for a 20-year road-development program, only $100 million has been spent so far. According to him, today four million jobs are provided by roads and road transport. It is not difficult to raise this to 20 million, in which a large proportion of engineers could be included, if road construction and maintenance are undertaken with vigor.

Yet another measure, proposed by Dr. V. K. R. V. Rao, Union Education Minister, is to instruct all state governments and universities to restrict admission to engineering courses to the 1968 level and not to expand.

By this measure it is assumed that the demand and supply position of engineering personnel will balance by the end of 1978-79, that is, after 10 years.

The latest proposal, which will be implemented in various parts of the country in a few months, is to help unemployed engineers in establishing new, small-scale industries. The scheme envisages financial assistance to engineers, allotment of land at very low rates and supply of machinery and equipment on a hire-purchase basis.