

Our Delhi Letter

Technical Personnel

WITH the Parliament in recess, the Prime Minister abroad and the other Ministers on tour. Delhi has been practically left to the clerks and to the loo. Perhaps the last meeting of importance of the season was that on technical education. The meeting was addressed by Shri Humayun Kabir.

The All India Council held its 13th meeting a few days ago and took up for consideration the very important theme of assessing the requirements of technical personnel in the Third and the Fourth Five-Year Plans. The Council had before it the report on the subject by a Working Group appointed sometime in February 1959 with an impressive list of members on it.

According to the Working Group the position in 1960-61 was: 97 engineering colleges with an intake capacity of about a little over 13,000 students and 197 polytechnics with an intake capacity of 26,000 students.

Based on certain important studies by the Planning Commission, the Working Group has estimated the requirement of engineering graduates and diploma holders during the Third Five-Year Plan at about 40 to 45,000 and 70 to 90,000 respectively. As the training of an engineer takes nearly 5 years and that of a diploma holder 3 years, there is also the need for considering right now in however tentative a manner the requirements of the Fourth Five-Year Plan.

The demand and supply of technical personnel over a period of 15 years from 1956 to 1971 has been worked out as shown alongside.

On the strength of the figures adduced and on the basis of a rough logic, the Working Group perhaps feels that its estimates are fair. The Group has also the fear that any over estimation on its part may end in underemployment and unemployment. With a Parliament always critical of over-estimates the Group has obviously preferred to err on the side of caution, protests notwithstanding.

Shri Humayun Kabir, on the other hand, had experience to quote. And the politician in him would not let go the importance of being impres-

sive. The provision for additional intake of students during the Second Five-Year Plan years had to be revised upward, he said, not once but thrice, from 7,232 to 12,980 for engineering colleges and from 12,792 to 27,000 in the case of polytechnics. This, he thought, was an indication of the rate at which the demand for technical personnel was increasing. It also proved how difficult it was to assess the demands of the growing economy accurately. Shri Kabir was therefore sceptical about the proposal to increase the facilities in the Third Plan period at the pace set by the Working Group. The number at the degree level might just suffice, he agreed; especially if there was better utilization of the highly trained personnel, and if we avoided using degree holders for services which are rendered by diploma holders in other countries. At the diploma level, however, he was sure that the Working Group's proposed addition of 15,000 places would have to be revised considerably upward; and for two reasons:

- (a) The changes necessary to make the pattern of education in engineering and technology more consistent with the requirements of modern industry would, call for a larger number of trained people at the diploma level; and
- (b) In industrially developed countries the ratio of intake of stu-

dents at the diploma and the degree levels is 4 : 1. In India, at the end of the Second Plan, the ratio is likely to be 2 : 1. This should be changed to a ratio of at least 2.5 : 1 at the end of the Third Plan. In round figures, this would mean increasing the facilities for polytechnic education to 50,000 admissions per year instead of the 10,000 recommended by the Working Group.

Shri Kabir does not look to any immediate answer, either affirming or refuting his assessment. None was given by the Council. But the earnest Minister of Culture is determined to pitch his demand high. And he will not at all agree to make it less ambitious on consideration of cost. The Planning Commission, he said, had agreed that a total provision of Rs 177 crores was the minimum required for technical education in the Third Five-Year Plan. "Any reduction of this figure can be only at the cost of reducing the proposed targets" he warned sternly, and "this is likely to lead to a shortage of trained personnel that may endanger the execution of all other industrial and agricultural programmes".

In other words, if the other Ministries get away with astronomical totals for the cost of materials required to implement the Plan, Shri Kabir is determined to do equally well, for providing the men.

**Demand Supply of Graduates, Diploma Holders and Craftsmen
During the Second, Third and Fourth Plans
(000)**

	Second Plan 1956-61.		Third Plan 1961-66		Fourth Plan 1966-71	
	Demand	Supply	Demand	Supply	Demand	Supply
Graduates	28	26	45	51	75	75.3
Diploma holders	54	32	80	76 (a)	1.20	1,17.5 (d)
Craftsmen	6.35	(b)	11.00	(c)	(to be estimated in Third Plan)	

- a) The shortage will be met through expansion of training facilities during the Third Plan.
- b) Institutional training would result in a figure of 40,000 to 50,000 while the rest would be available through other forms of training.
- c) 3,00,000 are expected to be available through D.G.R.E. training centres the rest are estimated to be available through other methods.
- d) Shortage will be met through expansion of facilities during the Fourth Plan.