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OUTLINE OF VOCATIONAL TRAINING IN PAKISTAN.

AUSTRALIAN DEPT. OF LABOUR AND NAT. SERVICE, PERTH

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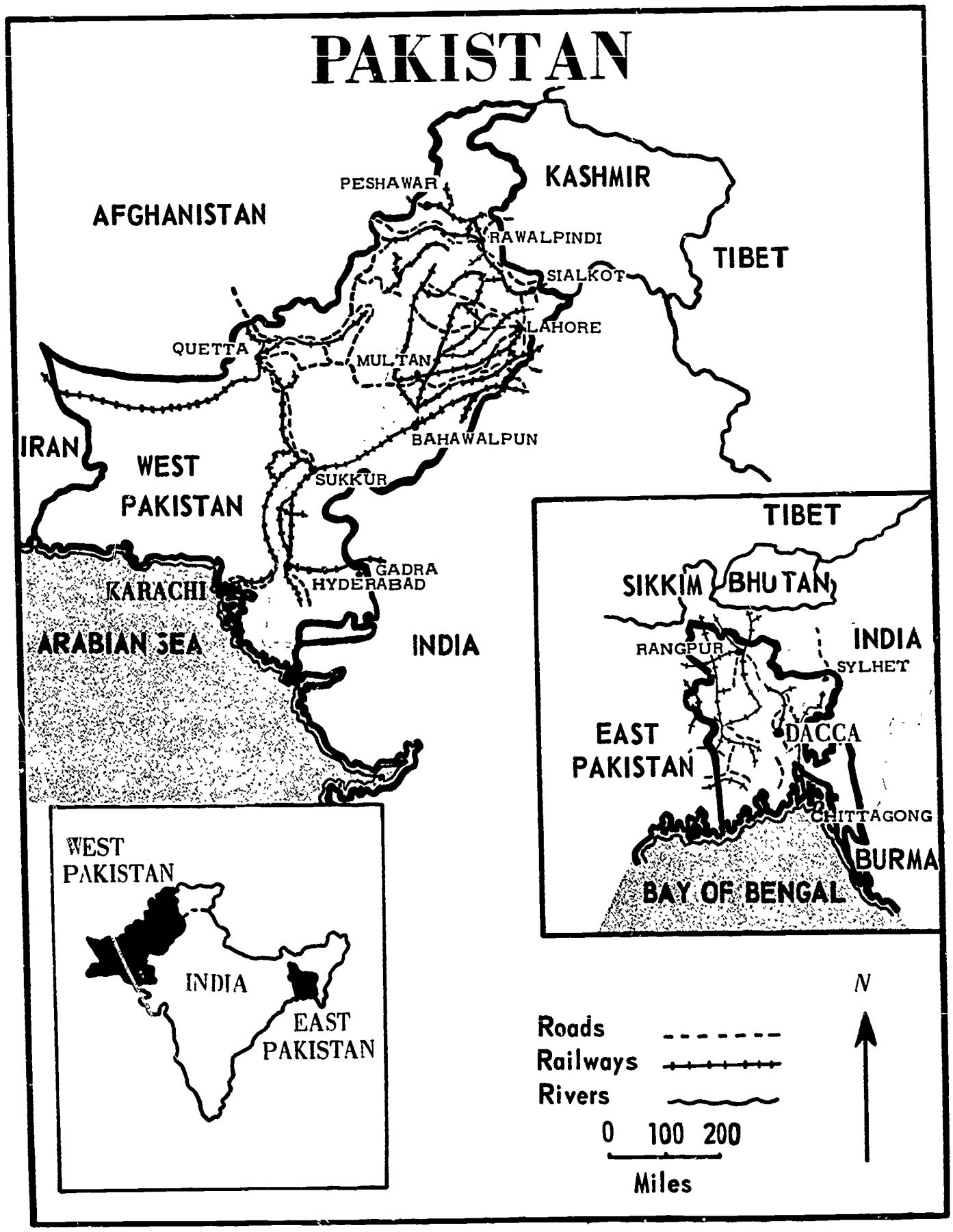
IN 1964, THE TWO PROVINCES OF PAKISTAN HAD A COMBINED POPULATION OF 101 MILLION. THE ECONOMY OF THE NATION IS HEAVILY DEPENDENT ON AGRICULTURE, BUT INDUSTRIAL EXPANSION IS RAPID ENOUGH TO CAUSE SHORTAGE OF SKILLED PERSONNEL. A 5-YEAR PRIMARY EDUCATION BRANCHES INTO TWO SECONDARY STREAMS. STUDENTS MAY ENTER A 5-YEAR HIGH SCHOOL TOWARD UNIVERSITY, POLYTECHNIC, OR TEACHER TRAINING. OTHERS MAY ENTER A 3-YEAR MIDDLE SCHOOL. UPON COMPLETION OF 2 YEARS OF EITHER MIDDLE OR HIGH SCHOOL, A STUDENT MAY CHOOSE A TECHNICAL SCHOOL. THE CENTRAL GOVERNMENT, WITH THE TWO PROVINCIAL GOVERNMENTS, SHARES RESPONSIBILITY FOR OPERATING TECHNICAL EDUCATION. BESIDES UNIVERSITY AND COLLEGE ENGINEERING PROGRAMS, PLOYTECHNICS AND MONOTECHNICS OFFER 3-YEAR DIPLOMA COURSES IN 15 TECHNOLOGIES. TECHNICAL-INDUSTRIAL INSTITUTES OFFER 1- AND 2-YEAR TRADE COURSES. THERE ARE ALSO 110 VOCATIONAL SCHOOLS. INSERVICE TECHNICAL TEACHER TRAINING IS GIVEN AT SELECTED POLYTECHNICS, AND PRESERVICE TRAINING PROGRAMS AND TECHNICAL TEACHER TRAINING COLLEGES HAVE BEEN ESTABLISHED IN BOTH PROVINCES. APPRENTICESHIPS ARE AVAILABLE IN A WIDE VARIETY OF TRADES, IN WHICH ENGINEERING AND BUILDING ARE PREDOMINANT, AND ACCELERATED TRAINING IS AVAILABLE IN 14 TRADES. IN-INDUSTRY TRAINING, CONSISTING CHIEFLY OF PRACTICAL WORK FOR APPRENTICES AND TECHNICIANS, HAS DEVELOPED ONLY IN RESPONSE TO LOCAL NEEDS WITH NO FORMAL PROMOTION BY THE GOVERNMENT. PLANS HAVE BEEN MADE FOR 19 NEW POLYTECHNICS AND 424 NEW VOCATIONAL SCHOOLS. (JM)

Outline
of
Vocational Training
in
PAKISTAN

PREPARED BY THE DEPARTMENT OF LABOUR AND NATIONAL SERVICE
OF THE COMMONWEALTH OF AUSTRALIA FOR THE
PAN INDIAN OCEAN CONFERENCE ON TECHNICAL EDUCATION AND TRAINING
PERTH, 1966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1. Introduction

Area, Population

Pakistan is divided into two provinces: West and East. West Pakistan covers an area of 310,236 square miles and its population, in 1964, was estimated at approximately 45 million. By comparison, East Pakistan has an area of 45,501 square miles and an estimated population of approximately 56 million.

Primary Industry

The economy of Pakistan is heavily dependent on agriculture, the main crops being rice, wheat, maize, barley, cotton, sugar, jute and tea. The development of agriculture has therefore been a key element in the series of five-year plans that the Government has introduced to raise gross national product. Continuing efforts have been made to introduce modern farming techniques and machinery, and record sugar, rice and cotton crops resulted in 1964. Nevertheless, wheat harvests have not come up to expectations and Pakistan seems likely to remain heavily dependent on wheat imports for some years. In some areas drainage problems are making it very difficult to increase soil fertility and expand the area of cultivated land.

Pastoral activities are of major importance to the economy and, in 1963, the cattle population was twenty-six million. Cattle breeding programmes are materially assisting the development of this industry.

Pakistan's mineral resources are limited, but small deposits of limestone, gypsum and iron ore have been found in the West, while chromite, coal, gypsum, limestone, petroleum and natural gas are found in the East. Oil production falls far short of domestic needs but, as it is geologically probable that oil exists in both provinces, prospecting is continuing.

Secondary Industry

The extension of hydro-electric power stations has resulted in a rapid increase in factory activity, although cottage industry is still widespread. Secondary industry still only employs about 10 per cent of the work-force, but expansion has been rapid enough to have caused a considerable shortage of skilled personnel.

Development has been confined mainly to industries producing consumer goods and processing raw materials. Pakistan is approaching self-sufficiency in cotton textiles, soap, cigarettes, paper, leather and cement, and marked increases have also been made in production of sugar, fertilizers, petroleum, cement and jute.

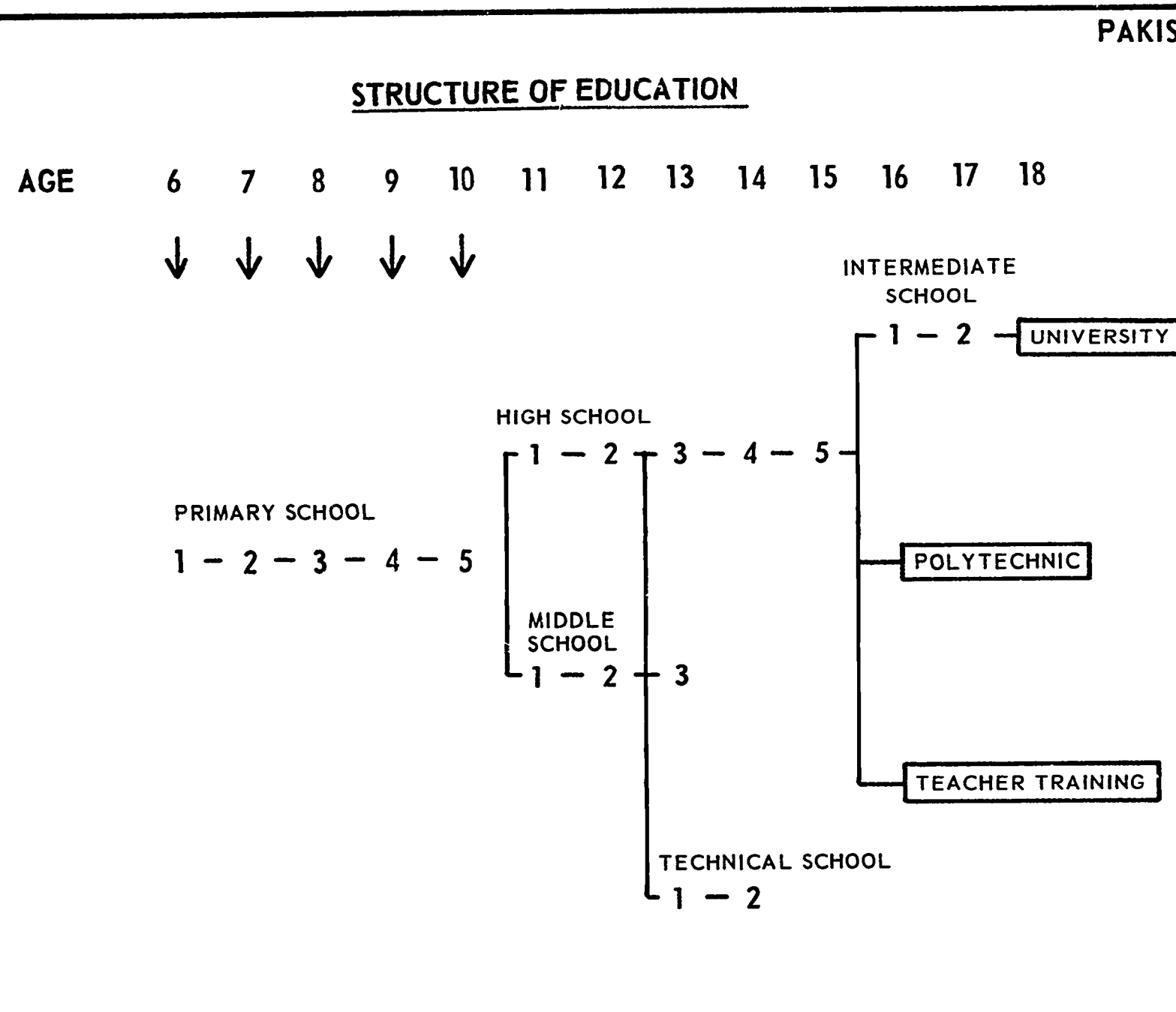
General Economic Development

Significant pointers to the steady development of Pakistan are found in the general stability of prices and in the fact that 30 per cent of development imports are financed from foreign exchange earnings. Its recent rate of growth is shown by the 2.6 per cent rise in gross national product in 1962-63 followed by a further 6.5 per cent rise in 1963-64; although a fair proportion of the latter increase has been a direct result of the sharp rise in rice output.

Pakistan's exports consist mainly of jute and other primary products with manufactured textiles increasing in importance. Imports have increased in value but a large percentage of these have been in the form of industrial raw materials.

PAKISTAN

STRUCTURE OF EDUCATION



2. General Education

The national system of education includes primary, secondary and tertiary stages and makes provision for pre-primary, technical, vocational, commercial and professional education.

Primary education covers a period of five years for children whose average age is between six and eleven years. It branches into two secondary streams. The student may follow a five-year high school course or a three-year middle school course, but in either case he can leave after the second year to attend a technical school. If he chooses to complete the the five-year high school course, tertiary streams are then open to him, although he must complete an additional two years at an intermediate school before entering a university.

During the academic year 1963-1964, there were 58,294 primary schools having an enrolment of 6.2 million children who were taught by about 163,000 teachers, the teacher-pupil ratio being 1:38. During the same year, in 7,396 secondary schools there were 2.05 million students under the charge of 78,439 teachers giving a teacher-pupil ratio of 1:26.

3. Technical Education

Organisation and Administration

The Central Government is responsible for the formulation of technical education policy, but shares the responsibility for the operation of the school system with the two provincial governments.

The Central Government, through the Ministry of Health, Labour and Social Welfare has developed the Technical Training Centre and the Ministry of Industries operates the Swedish-Pak Institute of Technology in Pakistan. The two provincial governments are responsible for the development and operation of polytechnics, monotechnics and technical institutes, each of which has its own advisory council made up of representatives of local industries, educationists and relevant government departments.

The three governments maintain constant communication on all the technical education activities with close liaison between the governments and industry, etc. The employment trends are available from them and existing plans for developing vocational training are based on these.

Types of Institutions and Courses

Universities of Engineering and Technology have been developed from the one-time engineering colleges at Lahore and Dacca and post-graduate studies have been introduced in a number of disciplines. Besides, four engineering colleges at Rajshahi, Karachi, Hyderabad and Peshawar are already functioning and two more at Chittagong and Khulna are planned for commencement during the current plan period. The undergraduate courses available include architecture, town planning, electronics and seven branches of engineering, while post-graduate courses are available in town planning and four branches of engineering. Under-graduate enrolments for the above courses in 1964 totalled 1,630.

The polytechnics and monotechnics offer three-year diploma courses in 15 technologies and have increased their enrolments from 1,010 in 1961 to 4,100 in 1964.

The technical/industrial institutions offer trade courses for craftsmen with a range of from one to two years' duration.

Vocational training to produce skilled workers is the responsibility of the provincial Departments of Labour and Industries, although school facilities are provided by the Education Departments. In all, there are 110 vocational schools and, in 1964, their total student intake was 8,300.

Arrangements for Technical Teacher Training

A programme of in-service training for technical teachers commenced at selected polytechnics during the Second Five-Year Plan. To cope with the present and future needs of the country, a new Technical Teachers' Training College has been established in both West and East Pakistan.

Pre-service technical teacher training programmes also operate in both East and West Pakistan. In addition, teaching staff are sent abroad for higher education and training. Crafts instructors' training courses are available in the technical training centres of Provincial Health, Labour and Social Welfare Departments, at Karachi, Dacca and Chittagong.

4. Apprenticeship

Apprenticeship is the responsibility of the Department of Manpower and Employment which exercises its authority through a Regional Directorate of Apprenticeship Training in each province.

Prospective apprentices may choose from a wide variety of trades, amongst which engineering and building predominate. The lower age limit for apprenticeship varies between fourteen and eighteen years and, while the upper limit is generally restricted to twenty-five years, it may be extended beyond twenty-five years in the case of ex-servicemen.

Courses in some trades cover a period of only three years but the majority of trades require either four or five years. At the end of the course, each apprentice is required to sit for a final test of competence. Consideration is currently being given to the introduction of a national certificate scheme. The practical training of apprentices is undertaken both within industry and in the technical institutes, but theory training is virtually all given in the technical institutes on a day-release basis.

A significant advance in practical training arrangements has been the establishment of 40 apprentice training centres (set up with the assistance of an I.L.O. mission) under the direct control of the Regional Directorates of Apprenticeships.

5. Accelerated Vocational Training

The Directorates of Technical Education in both East and West Pakistan are responsible for accelerated vocational training schemes for adults. Training is carried out in 14 trades and usually lasts for one year, although this period can be varied according to the aptitude of the trainee. Trainees who successfully complete the course generally have no difficulty in finding employment.

6. In-industry Training

No one authority has a formal responsibility for the promotion of in-industry training which has therefore developed only in response to local needs.

At the skilled worker level, in-industry training consists mainly of practical work for apprentices and technicians. The establishments of apprentice training centres in a number of the larger industrial concerns has greatly assisted apprentice training and co-operation between industry and technical institutes in the arrangement of sandwich courses has facilitated the training of technicians. There is no bar to the promotion (up-grading) of industrial workers to higher grade (e.g. trade and technician) provided they have the basic required training and other requisites.

Training of semi-skilled workers is undertaken by individual organisations wherever it is deemed necessary.

The Industrial Development Corporations of East and West Pakistan provide Training-Within-Industry courses for supervisors and other courses in management and supervision are available through the Institutes of Personnel Training and Management.

Full-time and part-time training officers are employed by the larger undertakings but no formal facilities are available for their training.

7. National Planning for Vocational Training

The Third Five-Year Plan, 1965-1970, is directed towards a more balanced and integrated development of all levels of education. One of the crucial aims of the plan, apart from widening the base of primary education, etc., will be to increase considerably the existing facilities for technical and in-plant training.

The two universities of Engineering and Technology will be further developed for the promotion of post-graduate studies and research. In East Pakistan, in addition to the completion of the Engineering Colleges at Rajshahi and Chittagong, an engineering college will be established at Khulna. In West Pakistan, the engineering colleges at Karachi, Peshawar and Hyderabad will be strengthened further and another new college established. This programme is designed to increase the annual intake capacity of these colleges from 1,630 in 1965 to about 3,300 in 1970 and the output from 748 in 1965 to about 1,750 in 1970.

Between 1965 and 1970 it is also proposed to establish 19 new polytechnics, making 54 in all by 1970. It is anticipated that these developments will increase the number of technologists available to 25 and the intake capacity to 14,000.

In the same period it is planned to establish 424 new vocational schools for skilled workers giving an annual intake of 50,000. Evening classes will be started in selected institutions and a system of mobile workshops will also come into operation for the benefit of craftsmen in remote villages.