

CHAPTER XI

Education and Training

I.—THE ROLE OF EDUCATION IN NATIONAL DEVELOPMENT

489. One of the main objectives of the First Malaysia Plan is to intensify and expand the development of human resources in the country. In recent years, there has been an increasing awareness of the vital role of the human factor in economic development. Studies of some countries suggest that perhaps 20% to 30% of the growth of national income may be attributed to quantitative increases in capital and labour inputs, while the remainder is due to qualitative improvements in these inputs, including increases in the productivity of human resources through education and training.

490. Unless the educational system is geared to meet the development needs of the country, there will be a misallocation of an important economic resource, which will slow down the rate of economic and social advance. While widespread basic education is necessary, a modern society requires people of varied educational attainments and skills. As the economy develops, the quality and experience of the labour force assume an increasing importance. For this reason, the rate at which trained manpower is produced constitutes an important determinant of the rate of advance which a country can achieve over time.

491. The development of education will therefore be a major effort in the Plan. To this end, the traditional system of education is being re-oriented to achieve not only the objectives of nation-building and universal literacy but also the economic goals of the country. The Education Committee Report of 1956 laid the foundation for a system of education which would be national in character and which would give every child a place in primary school. The Report also made recommendations for the expansion of secondary trade and technical education to meet

the needs of the country for trained personnel. Subsequently, as a result of the recommendations in the Education Review Committee Report of 1960, primary school fees were abolished in 1961 and the school-leaving age was raised to 14. The next major advance in the development of education was the introduction of the comprehensive system in 1965. The new system, which raises the school-leaving age to 15, is designed specifically to change the form and content of second-level education, which will henceforth offer a greatly expanded and more diversified range of courses. Students will be counselled to pursue courses appropriate to their aptitudes and interests. These changes in second-level institutions are important because this level provides the teachers for primary education, the students for higher education and the middle-level technicians to meet the nation's needs.

492. Ideally, the number of students completing education at different levels should correspond to the demand for manpower at those levels. In order to ensure that the education system meets manpower needs, educational development has to be co-ordinated with manpower planning. The first step towards co-ordinating educational development with manpower planning is already being taken. The Higher Education Planning Committee established in 1962 is attempting not only to estimate the manpower demand during the next twenty years but also to plan the educational facilities needed to meet this demand. To complement the task of the Higher Education Planning Committee, a manpower survey was carried out in 1965 to assess the resources currently available. Also, in recognition of the importance of manpower planning for economic development, a Manpower Planning Section has been established recently in the Economic Planning Unit (EPU). Its task will be to assess and keep under constant review the manpower requirements of the economy.

493. In the Borneo States the system of education is also undergoing changes. However, it will be some time yet before the educational system in these States can be co-ordinated with that in Malaya to meet the needs of the rapidly developing Malaysian nation. It should also be mentioned that the activities of the Manpower Planning Section of the EPU and the Higher Education Planning Committee will cover these two States.

II.—PROGRESS DURING 1961-65

494. The period 1961-65 was one of transition, with a number of changes being introduced to adapt the system of education to meet the needs of a rapidly developing independent nation. The changes introduced and the progress made are set out briefly in the paragraphs below.

MALAYA

495. Primary school fees in Malaya were abolished. Most of the partially assisted primary and secondary schools remaining outside the national system of education were brought into conformity with it. The school-leaving age was increased from 12 to 14 years and a reorganisation of the secondary school system was effected through the introduction of the comprehensive system of education. At the same time, a decision was taken to establish upper-secondary vocational schools, which will in future incorporate the educational facilities formerly provided in Sekolah² Lanjutan Kampong. The teacher training programme was integrated and streamlined to cope with the ever-increasing teacher requirements. A system of guidance counselling was introduced in lower-secondary schools, while Malay-medium secondary education was consolidated and the government's national language policy was implemented.

496. The main efforts in school education were to consolidate primary education and expand secondary educational facilities. An additional 5,890 classrooms were constructed in primary schools and 3,120 classrooms in secondary schools to enable their respective enrolments to increase from 979,350 to 1,231,740 and from 98,960 to 275,360 pupils between 1960 and 1965. Some of the old school buildings which were dilapidated and below acceptable standards were improved. In addition, about 50 hostels for some 5,000 pupils in secondary schools and about 1,000 teachers' quarters were constructed during the period.

497. In the field of college education, priority was given to the training of teachers in order to cope with the vast increase in school enrolment. Teacher training facilities were expanded by the completion of a new secondary teacher training college and three primary teacher training colleges and the provision of substantially improved and expanded facilities at three secondary and six primary teacher training colleges. The construction of two additional secondary and one additional primary teacher training colleges was begun. As a result, the total number of teachers graduated annually increased from 2,400 in 1960 to 3,260 in 1965, making it possible to close down the teacher training colleges at Brinsford and Kirkby in the United Kingdom.

498. An expansion programme was also carried out at the Technical College, Kuala Lumpur, to improve the teaching facilities available and increase total enrolments from 422 in 1960 to 680 in 1965 to meet the increasing demand for trained technical personnel at the sub-professional level.

499. Rapid development was also carried out in the University of Malaya during the period 1961-65. This development included establishment of a

new Faculty of Medicine and School of Education, extensions to the Faculties of Arts, Science, Agriculture and Engineering and the Library and completion of two residential colleges for 600 students and 71 housing units for University staff. In addition, the building programme for the Medical Centre was brought close to completion. Construction was also started on the Great Hall and the Administrative Block, both of which will be ready in 1966; the Teaching Hospital, which is scheduled to be completed in March, 1966; and two residential colleges for an additional 900 students. 500. Despite these vast changes and the demands which they placed upon planners and administrators of education projects, the progress achieved during the period under review was satisfactory. Education staff, both at senior and subordinate levels, was substantially increased.

BORNEO STATES

501. In the Borneo States the main development during 1961-65 was the construction of additional classrooms to cope with the ever-increasing school enrolment. A total of 1,236 classrooms was constructed in primary schools and 261 in secondary schools. It was also decided in 1965 that primary school fees would be abolished in these two States with effect from 1st January, 1966.

III.—PROGRAMMES UNDER THE FIRST MALAYSIA PLAN

502. The objectives of the education programmes under the First Malaysia Plan are as follows:

- (i) to consolidate further the national educational system in order to promote social, cultural and political unity;
- (ii) to provide educational facilities, particularly at the secondary level, to meet the needs of the increasing school-age population;
- (iii) to improve the quality of education and to spread education opportunities more evenly throughout the country so as to correct imbalances between the urban and rural areas;
- (iv) to diversify educational and training facilities by increasing such facilities in vital fields, especially those relating to agricultural and industrial science and technology;
- (v) to accelerate teacher training in order to produce the necessary number of qualified and skilled teachers.

503. The following paragraphs describe briefly the programmes which have been planned to meet these objectives.

PRIMARY EDUCATION

504. In the field of primary education, it will continue to be the policy of the government to give a place in school to every child of primary school age. It is estimated that enrolments in Malaya will rise from their present level of 1.2 million to about 1.5 million by 1970, while those in Sabah and Sarawak will rise from 82,000 to 114,000 and 126,000 to 158,000 respectively. This is a considerable advance on existing enrolments and represents a substantial rise in the percentage of children of school age enrolled, especially in the Borneo States. In addition to the provision of expanded facilities for the increase in the school-age population, the Plan includes a programme to alter or replace sub-standard schools, mainly in the rural areas.

505. The success of the primary education programme depends on three important factors. Firstly, a greatly expanded supply of qualified teachers is essential. Teacher training will thus be given emphasis. Secondly, better facilities are required to make education more attractive; hence improved teaching aids will be used to make children more receptive to their education. A third factor, important particularly in Sabah and Sarawak and in the rural areas of Malaya, is the elimination of wastage caused by the premature withdrawal of children from school. Steps will be taken to reduce the proportion of such drop-outs in order to increase the effectiveness of educational expenditure.

SECONDARY EDUCATION

506. Secondary education over the next five years and thereafter will undergo major changes to meet the specialised needs of agriculture, commerce and industry as well as to provide for greatly expanded enrolments at secondary level. At present in Malaya, only 30% of the children who complete the first or primary level proceed to the secondary level. Under the First Malaysia Plan this proportion will be greatly increased.

507. The major change in Malaya is the introduction of the new comprehensive system of education. Under this system, all students completing primary education will be offered a further three years of education in lower-secondary classes. During these three years students will receive general education with a vocational or technical emphasis on industrial arts (woodwork, metalwork, electricity and power mechanics), agricultural science, commercial studies and home science. A counselling system will test the aptitudes and interests of students, who will then sit for an examination at the end of the three-year course. This examination will select about 45% of the lower-secondary enrolment for a further two years of post-comprehensive education. During these two years students will pursue

courses of study consistent with their aptitudes and interests in technical, vocational or academic fields.

508. In Malaya the first main group of pupils will sit for their Lower Certificate of Education Examination under the new system in 1967. Thereafter lower-secondary education will undergo a period of consolidation. Meanwhile, in upper-secondary education, including sixth form, changes will be introduced as a result of recommendations that will emerge from the review now being undertaken in the Ministry of Education.

509. A number of upper-secondary vocational schools will be established for the first time during the period of the First Malaysia Plan. These will begin to function from 1968 for those who have completed nine years of primary and lower-secondary education and who, by their inclination or choice, will not be entering upper-secondary academic schools. The main function of the vocational schools will be to supply the skilled technicians, craftsmen and artisans urgently needed by the agricultural, industrial and commercial sectors of the economy.

510. As a result of these changes, estimated enrolment in all secondary schools in Malaya will increase from 275,360 in 1965 to about 738,000 in 1970.

511. In both Sabah and Sarawak one of the greatest needs at present is for personnel with secondary education. In Sabah only about 20% of children in the secondary school-age group are in schools; provision is being made in the Plan to increase this percentage to about 30% by the end of 1970. In Sarawak the policy will be to provide places in government or government-aided schools for about 30% of those who complete their primary education. Most of the new places required will be provided in government secondary schools and the remainder in expanded existing aided schools. Provision has also been made in the Plan to improve science laboratories and workshops to meet the requirements of the new curriculum.

HIGHER EDUCATION

512. Higher education consists of both college education and university education. College education in Malaysia is primarily designed to supply the nation's needs for middle-level technicians. The development programme for the next five years includes expansion of the existing College of Agriculture at Serdang, establishment of a second college of agriculture and expansion of the Technical College in Kuala Lumpur, whose enrolment will increase from the present 680 students to 1,000 students by 1970. Efforts will also be made to expand the range of courses offered in all these

colleges. The establishment of a polytechnic will offer a wide variety of courses including chemical, rubber, food, aeronautical and motor technologies. Most of these courses are new and will not duplicate those presently available in other colleges.

113. The University of Malaya supplies the nation's needs for professional manpower, such as engineers, scientists, agriculturists, business managers and economists. At present it consists of Faculties of Arts, Science, Engineering, Agriculture and Medicine. During the Plan period, the University will begin for the first time to produce doctors and approximately 15 students will graduate from the Faculty of Medicine in 1969. At full capacity in 1972, the Faculty will have room for an enrolment of 790 students in the six-year undergraduate course of study and 112 post-graduate students. The annual output of the University at this time will be 80 doctors.

114. To increase further the capacity of the University to provide high-level manpower, the development programme during the next five years will enable the existing enrolment of 3,000 to be increased considerably. In addition, extensions of the existing faculties will be undertaken to provide better equipment and research facilities. High priority will be given to the production of graduates to meet the acute need for teachers required in upper-secondary academic schools and sixth forms. For the expansion of the Faculty of Engineering, assistance will be provided by the U.N. Special Fund. Training and research facilities will be enlarged to absorb 100 students per year for the civil, mechanical and electrical engineering courses. Other projects included in the overall programme for the expansion of the University are additional residential colleges, housing units for the university staff, further extensions to the Library and provision of miscellaneous services.

115. The Higher Education Planning Committee's study on the future demand for high-level manpower may indicate that additional university education facilities are necessary. In this case consideration will be given to the establishment of a university college in Penang.

TEACHER EDUCATION

116. Teacher training will be one of the most urgent tasks facing the educational system during the next five years. The improvement and expansion of teacher training facilities are therefore of the highest priority. Existing facilities are sufficient to meet the requirements for primary teachers but it will be difficult to produce secondary teachers in the numbers and variety of disciplines required for the new system of comprehensive education. The problem will be partly resolved by expanding existing

colleges and building new ones, although these are essentially long-run solutions. The development programme for teacher training includes completion of the Malayan Teachers' College at Johore Bahru and the Technical Teachers' Training College at Cheras Road, Kuala Lumpur; extensions and alterations to existing teacher training colleges, both primary and secondary; and establishment of two additional teachers colleges and one day training college. The programme also includes the supply of library materials and visual and teaching aids for existing regional training centres and the provision of accommodation for some of the staff of the above institutions. In teacher training, emphasis will be shifted from teaching methods to the study of the subject matter which the future teachers will have to teach. To this end, secondary teacher training colleges will henceforth specialise in different subjects.

517. As the expansion programme will be unable to meet fully all immediate needs, it will continue to be necessary to make use of part-time teachers. These teachers simultaneously teach and are trained in regional training centres. It is emphasised, however, that this is essentially a short-term solution introduced to meet the temporarily acute shortage of teachers arising from the sharp increase in the size of the education programme. Periodic refresher courses will be given for teachers already trained to expose them to the latest developments in education techniques and subject matter.

518. In Sabah and Sarawak there is also an urgent need for trained teachers in both primary and secondary schools. In Sabah, Kent College and Gaya College will be expanded to take an additional 120 and 80 teacher trainees, thereby increasing their total enrolments to 330 and 320 respectively. In Sarawak a new primary teacher training college will be established for 300 trainees with assistance from the New Zealand Government.

519. In spite of all these plans for the expansion of the supply of teachers, anticipated output in Malaysia will still fall far short of demand. Therefore teachers from overseas will be recruited. It is hoped that most of these teachers will be obtained under external assistance schemes.

IV.—OTHER EDUCATION AND TRAINING PROGRAMMES

520. While the formal education system must carry the main responsibility for producing the trained manpower for economic and social development, some needs, especially for more specialised services both in the public and private sectors, will continue to be met within industries and government departments themselves. The government will seek to ensure that all training facilities are fully utilised. The salient features of the government's programme in this field are described in the following paragraphs.

521. Specialised management and business skills will be developed through several measures. There will be a substantial expansion of the Dewan Latchan within the Majlis Amanah Ra'ayat. Facilities will be expanded and an improved and enlarged corps of teachers will be provided to enable a doubling of the present enrolment to about 600 in 1970.

522. The National Productivity Centre, which has been established with U.N. Special Fund assistance, will continue with the training of already-employed management personnel. The government will expand the services of the Centre and convert it to a quasi-autonomous institution with an enhanced capacity to attract well-qualified personnel to its training staff. Through such efforts to supplement the longer-range functions of the University, the school system and private training institutions, the country will progress rapidly in producing an adequate number of persons with management and business skills.

523. The training of craftsmen and artisans will be the subject of increasingly close co-operation between government and industry. Although long-term requirements for basic craft skills will be met mainly through vocational education followed by appropriate work experience, the output of the vocational schools cannot be expanded in major degree until 1970. Although the national apprenticeship programme is expanding steadily, only 900 apprentices are presently registered and more are needed. Increased government effort will be devoted to ensuring that employers with the capability of sponsoring this type of skill development accept the responsibility for doing so.

524. There are, however, shortages of skills for which neither apprenticeship nor vocational education provides an appropriate or timely solution. The government will consult with management and labour with a view to organizing specific training arrangements tailored to particular skill requirements. Wherever practicable, industry will be requested to share the cost of these training programmes. An allocation is included in the Plan for expansion of the facilities of the Industrial Training Institute to serve this purpose.

525. Finally, the government, in its role as the nation's largest employer, will continue to carry out large, diverse and growing training programmes. These training activities constitute a great part of the nation's programme for specialised training. Indirectly, through the normal mobility of trained personnel, they contribute substantially to the meeting of private sector requirements. As the school system assumes its role as the main provider of specialised manpower, many of these specialised government training facilities will need to be adjusted and co-ordinated with the general school system.

V.—ALLOCATIONS FOR EDUCATIONAL DEVELOPMENT

526. The estimated cost of implementing the above programmes is presented in Table 11-1.

TABLE 11-1

MALAYSIA: DEVELOPMENT EXPENDITURE FOR EDUCATION, 1966-70

(\$ millions)

<i>Level of Education</i>	<i>Malaya</i>	<i>Sabah</i>	<i>Sarawak</i>	<i>Malaysia</i>
Primary ...	54.6	7.8	12.3	74.7
Secondary ...	188.7	14.2	29.2	232.1
Technical*	30.8	2.9	2.8	36.5
University ...	30.0	—	—	30.0
Teacher training ...	28.5	2.3	1.1	31.9
Other education and training ...	35.4	—	0.2	35.6
TOTAL ...	368.0	27.2	45.6	440.8

527. Development and recurrent expenditure for education will absorb about 5% of GNP by 1970. This level of expenditure compares favourably with even some of the more advanced countries. Development expenditure on education over the next five years represents a sharp increase over the level during 1961-65. In order to alleviate the strain on the finances of the government, recourse will be had to foreign assistance. Local education rates have been reimposed and efforts will be made to ensure the maximum utilisation of facilities, including the use of double sessions and low-cost standardised buildings.

* For Malaya, post-secondary level only.