

## Preface

The indispensable role and importance of technicians to a developing country cannot be over-emphasized. They are the middle-level manpower who exploit scientific and technical discovery; the people whose training and skill in industrial processes enable the material wealth of a nation to be built up. Their availability in the right numbers, at the right time, in the right place, and with the right balance of technical knowledge and practical skills, determines the pace and direction of industrial innovation and economic and social development.

Fairly recently, and fairly sharply, shortages of suitably-trained technical personnel have begun to be critical. As a result, plans for industrial expansion have been retarded and thrown off balance, and the import of expensive personnel from developed countries has had to be stepped up in an attempt to bridge the gap. In the long term, this cannot be allowed to continue or the developing countries will remain dependent on the developed world and will fail to realize the rates of growth – however modest – that they have set themselves. To remedy the situation, governments may have to make detailed forecasts of the needs for various categories of technician, and consider what modifications should be made in the existing education and training programmes to ensure that the needs are met.

In making plans for the future, many fundamental questions will have to be answered. For example, what is the technician's role in different kinds of industry expected to be? How can technicians best be recruited and selected for training? Where can the teachers be found, and how should they be trained? Are new technical colleges needed? If so, where should they be located, and how should they be designed, managed and administered? How can technician education programmes be evaluated, and the performance of the students be assessed and examined?

These are some of the questions that this book sets out to ask, and to some extent to answer. It does so in the form of six linked essays – on Manpower Planning and the Technician, on the Education and Training of Technicians, on the Selection and Assessment of Technicians, on the Supply and Preparation of Teachers, on Planning and Equipping Technical Institutions, and on Administration, Finance, Control and Inspection. The resemblance between these chapter headings, and, for that matter, the very title of this book, to those of *Education and Training of Technicians* – the Report of the Conference organ-

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ized by the Commonwealth Education Liaison Council at Huddersfield in October 1966 — is no coincidence. For it was as a result of the Commonwealth Secretariat's invitation to me to review and up-date that Report that this book was originally conceived. In accepting the honour of undertaking its preparation, I must acknowledge with gratitude my indebtedness to the lead papers and other contributions made to the 1966 Conference, to the wide range of other published and unpublished material I have drawn on, and to the knowledge and experience of many colleagues throughout the Commonwealth. It is my hope that those who work with planning authorities, education ministries, polytechnics, teacher-training institutions, and technical colleges can all find something in this book which will be of use to them in their task of preparing the technicians of the future.

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