

Report of the Meeting of Officials

Higher Education

1. The continuing provision of higher education constitutes a heavy financial burden on the national resources of both developed and developing member countries. This burden is particularly heavy in poorer countries, where the severe competition for scarce funds and the increasing emphasis on manpower considerations result in special problems for all post-secondary levels of education. Universities continue to play an important and distinctive role in the economic and cultural development of communities. This is specially the case in developing countries, where the stimulus provided by university research and training in many fields has a powerful direct and multiplier effect. Such universities also perform important service roles in their communities. In these circumstances, it is clear that they should continue to receive the support necessary for them to carry out and develop their work. It is clear also that an increasingly important role in post-secondary education is being carried out by a wide variety of institutions.

2. Universities and other post-secondary institutions should exercise a wide range of influences on the processes of development in all areas and levels of education. In this regard, it is considered that post-secondary institutions have important research roles in such key areas as management, media technology, student guidance and assessment, curriculum renewal, examinations, and teacher education programmes. The practical application of research in these fields is also a means by which these institutions can make significant contributions to the development of education, through the provision of appropriate training courses.

3. It is noted with interest that numerous and varied programmes of training relevant to education have been organized in a number of post-secondary institutions throughout the Commonwealth. Background papers prepared by these institutions have been most helpful to the

Secretariat in its capacity as a disseminator of information. The Secretariat should continue to keep in close touch with appropriate institutions for this purpose.

4. In addition to co-operating with individual institutions, the Secretariat maintains regular contacts on educational matters with relevant international organizations including the Association of Commonwealth Universities, the Association of African Universities, the Inter-University Council, l'Agence de Coopération Culturelle et Technique, and Unesco. It is agreed that this co-operation is of considerable value and that it should be continued and strengthened.

5. It is noted that the Commonwealth Secretariat has taken a special interest in the quality of education and training in tertiary institutions and in suggestions that their academic staff should be provided with courses which would make them more effective as teachers. *The Secretariat is currently engaged in a survey of programmes in Commonwealth countries designed to evolve techniques and methods to improve the quality of such teaching. The results of this survey will be published in due course.*

The Commonwealth Scholarship and Fellowship Plan

6. At the Sixth Commonwealth Education Conference (Jamaica, 1974) consideration was given to a report reviewing the Commonwealth Scholarship and Fellowship Plan (C.S.F.P.) since its inception in 1959. The report accepted that the Plan had been an unparalleled success and that the hopes of its founders had been fully realized.

7. The Seventh Commonwealth Education Conference, having considered the Fifteenth

and Sixteenth Annual Reports on the C.S.F.P., agrees that the Plan continues to represent a form of Commonwealth co-operation which is making a distinctive contribution to Commonwealth education, and recommends that it should be continued as a valuable link between member countries. It is noted that the Plan is strongly supported by both nominating and awarding countries.

8. It is agreed that the major review of the C.S.F.P. completed at Jamaica in 1974 has been most useful, and that the Plan should be kept under continuing review. It is generally felt that the purposes of the C.S.F.P. as formulated at Oxford in 1959 remain valid and that the Plan has made a significant contribution to excellence throughout the Commonwealth. It retains sufficient flexibility to accommodate the needs of countries which require a special emphasis in certain areas of postgraduate education (e.g. science and technology), and the needs of those which have a special requirement for undergraduate rather than for postgraduate training. At the same time, it is noted that the distinctive needs of certain countries for special categories of skilled manpower (for instance, high-level skills such as veterinary science and dentistry, to name but two examples) can also be provided through a variety of technical assistance programmes. Stress is laid on the importance of increasing the resources and improving the mechanisms of these programmes in order that these needs may more effectively be met.

9. It is agreed that there is particular value within the Plan in increasing the number of awards between developing countries. While the more developed countries have provided and will continue to provide significant facilities, particularly at the postgraduate level, there are many cases where the most valuable and appropriate training can be provided within developing countries.

10. In connection with the problems of "brain drain", it is agreed that the main purposes of the Plan are defeated if scholars do not return to their home countries on completion of their courses. This may to some extent be dealt with by special visas; it is, however, a complex problem which merits consideration by the relevant governmental authorities.

11. It is recognized as desirable that nominating countries should be informed of the

number of available awards. At the same time, it is appreciated that it is not always possible for donor countries to provide this information. It is recognized also that it is the responsibility of receiving countries to make the final decisions regarding awards.

12. The establishment of Academic Staff Scholarships and Fellowships under the Plan is commended as a most useful measure to help meet the staff development requirements of universities and other institutions of higher learning. Satisfaction is expressed also at the continued growth of the Academic Exchanges Programme, which is funded by the C.F.T.C., and is administered by the Association of Commonwealth Universities in conjunction with the Secretariat.

13. The generous response of some countries to the appeal made at the 1974 Conference for an increase in the awards offered under the Plan is noted with satisfaction. It is considered desirable that *consideration should be given to increasing the number of awards to an overall figure of 1,500*. In order to achieve this growth, new offers from both developed and developing member countries will need to be forthcoming. It is unlikely that by themselves the major donor countries will be able to provide the increased number entirely on their own while, at the same time, paying for the higher value of awards.

14. In this connection, it is noted that the Commonwealth Fund for Technical Co-operation remains willing to assist governments of developing countries to institute C.S.F.P. awards for nationals of other developing countries or, in the case of developing countries which are already donors, to increase the number or value of the awards which they offer to other developing countries. The Fund will consider providing up to £2,500 or two-thirds of the cost for each C.S.F.P. award, up to an agreed limit, offered by developing countries in subjects of key developmental importance. The hope is expressed that this offer will lead not only to an increase in the total number of awards provided by developing member countries, but also to an increase in the number of such countries which participate in the Plan as donors.

15. It is agreed that awarding countries should ensure that allowances granted to C.S.F.P. award-holders should keep pace with inflation.

16. In order to promote an increase in the interchange of scholars under the Plan, it is recommended that consideration be given to the provision by developed countries of C.S.F.P. awards for their nationals in developing countries, and for developed countries to provide third country awards under the Plan. An increased number of awards from Commonwealth developing countries, and an increase in the number of such countries that contribute to the Plan, would be particularly useful in increasing the interchange of Scholars between developing countries.

17. It is noted with satisfaction that the proposal at the 1974 Conference that a compilation should be made of the research potentials of universities in developing member countries has resulted in the publication of a directory entitled *Research Strengths of Universities in the Developing Countries of the Commonwealth*. In view of the value of this publication, it is agreed that the Association of Commonwealth Universities should be asked to prepare a new edition in collaboration with the Secretariat.

18. The administrative arrangements of the Plan, as presented in the new edition of the Administrative Handbook, are accepted, with the following additions and amendments:

(a) Agencies in nominating countries should ensure that all applicants and other relevant bodies receive timely information on publications concerning the education and training resources of the countries in which applicants wish to study.

(b) Where the offer of an award is conditional on the candidate producing satisfactory evidence of medical fitness, such certification should not be required until a provisional offer has been made.

(c) In the application form, the following sentence should be added in brackets after the introduction on page 1:

“(with regard to the referees in Section 21, it should be noted that the nominating agency is responsible for obtaining references and forwarding them to the awarding country together with the completed application form.)”

(d) At the end of the first sentence in Section 21 of the application form, the words “by the nominating agency” should be added.

19. The Association of Commonwealth Universities should continue to obtain annually from Commonwealth Scholarship agencies basic data and information about each country's operation of the Plan. It is agreed that in future reports on the C.S.F.P. should be published triennially, in time for successive Commonwealth Education Conferences.

20. It is reported that the provision in the Administrative Handbook requesting acknowledgement of nominations is not always complied with. Agencies in awarding countries should ensure that such acknowledgements are sent.

Science Education

21. Science as a school subject has a particular part to play in the education of children in that it can contribute to the development of individuals who think in a rational and non-dogmatic way, are prepared to test evidence, and are open to change. But it can fulfil this potential only if it is taught in a meaningful way. This implies the preparation of relevant curricula, the provision of equipment and materials, the active involvement of pupils in discovery methods relating to the environment in which they live, and the training — or in some cases the re-training — of teachers to fulfil their new roles and responsibilities.

Recent Developments

22. It is noted that though the Secretariat publication *The Production of School Science Equipment* has been well received in member countries, *Mathematics Teaching in Schools* appears to have been received with mixed feelings because some countries consider the introduction of modern mathematics in schools to be premature. The Secretariat should continue its publishing efforts in the field of science and mathematics education, and endeavour to increase the scale on which these publications are supplied to those Ministries of Education that are known to be in need of them. The Secretariat should also review its system of disseminating information so as to ensure that the information also gets to interested institutions, organizations and individuals.

23. It is noted with approval that the Secretariat is assisting the Commonwealth Association for Science and Mathematics Educators in its projects in the field of socially significant science and mathematics education.

24. It is noted with appreciation that the Commonwealth Secretariat, through the mechanism of the Commonwealth Fund for Technical Co-operation, organized the Caribbean regional seminar/workshop on low-cost science equipment, sponsored study visits of Commonwealth educators, and supported attendance of science educators at various regional and international meetings on the teaching of science and mathematics.

25. Whereas most developing member countries have a shortage of adequately trained science and mathematics teachers, some member countries (such as Canada) are faced with a problem of surplus. *It is recommended, therefore, that the Commonwealth Secretariat should explore fruitful ways by which member countries could co-operate in the supply of science and mathematics teachers.*

26. The recent Caribbean seminar/workshop on low-cost science teaching equipment has been successfully completed, and plans to hold a similar one in Africa are well advanced. *A third workshop in either the Pacific or Asia is recommended.* It is suggested that training personnel for fabricating low-cost science equipment might be arranged in suitable centres already engaged in this work. It is further suggested that in-service training of teachers and teacher educators in the use of such equipment should also be undertaken.

Proposed Future Activities

27. It is noted that it is nearly 15 years since a Commonwealth Specialist Conference on Science was held, and that the last Commonwealth Specialist Conference on Mathematics Teaching was held as far back as 1968. New developments have taken place in the approaches to, and content of, science and mathematics education during the last decade. These developments have made it expedient to discuss and review curricula and teaching techniques at all levels of science and mathematics education. Hence, a proposal to hold a Specialist Conference in the area of science and mathematics education arises. Such a con-

ference should examine ways of integrating science and mathematics with technology in the curriculum so as to give children the technical and vocational as well as the mathematical and scientific grounding that the modern world so clearly demands. A Specialist Conference with this theme is therefore strongly recommended. If this conference is held, one of its features should be an exhibition of low-cost teaching equipment developed in member countries. It is suggested that the Secretariat should prepare a resource book of designs of low-cost science and mathematics equipment, if possible before the conference.

28. Approval of arrangements currently being made by the Commonwealth Secretariat to provide Commonwealth developing countries with samples of science kits produced by units (such as the Kenya Science Equipment Production Unit) is recommended. *The Commonwealth Secretariat should also explore the possibility of creating a small pool of low-cost science equipment donated by those countries that manufacture it.* Items in the pool could be loaned or given to other Commonwealth developing countries for inspection. This would give them the opportunity to purchase it, adapt it, or produce it themselves. The Commonwealth Secretariat could help in identifying potentially useful equipment, and in facilitating packaging and freight as well as rights of replication.

29. Despite the efforts being made to promote local production of low-cost science teaching equipment, most Commonwealth developing countries will still need to depend on the importation of certain items. Since many developing member countries face foreign exchange difficulties, *the Secretariat should continue to explore ways of overcoming the problems of shortage of equipment.*

30. The Secretariat's view that it should concentrate on short-term training attachments rather than study visits for science educators is endorsed.

31. It is noted that the Commonwealth Secretariat has established useful links with a number of non-governmental national, regional and international organizations, including professional bodies, and is exploring the development of liaison with, and support for, govern-

mental regional organizations. *It is recommended that appropriate programme funding be made available by the Secretariat to assist these organizations to develop relevant, effective and innovative programmes in member countries.*

32. The new trends in science education, in which the environment is used as a resource and science education is related to development, should be strengthened. In this connection *the Commonwealth Secretariat should publish a resource book about science materials produced in various countries and the experiences people have had in using them.*

Technical Education

33. The world has become an increasingly technological place, and all countries, whether termed developing or developed, have become dependent on the efficient use and maintenance of things scientific and technical. Today, boys and girls cannot fulfil their potential as individuals, citizens or workers unless their education has included a formal introduction to technology and a modicum of scientific and vocational instruction. Young people who are educated in this way can enter employment, either direct from school or by way of further or higher education, and form part of the pool of skilled manpower so essential to national development.

34. It is noted that the Commonwealth Senior Officials' Review Committee of May 1976 laid down priorities for the Secretariat which included curriculum renewal aimed at making education more relevant to national goals, and placed special emphasis on technical and vocational education. It is further noted that the "recommendation to member governments on technical and vocational education" adopted by the UNESCO General Conference in 1974 concentrated on the teaching of practical subjects and the introduction of technology in schools. This means that care needs to be taken to ensure that the Secretariat does not duplicate or unduly overlap UNESCO activities with similar objectives.

35. Against this background, it is essential that assistance should be given to measures that will make education more relevant and

meaningful for both the developmental needs of society and the personal development of the individual. All too commonly the yardstick of scholastic success is a progression from school to university. But this progression is not open to most school-children and as a result many of them lack enthusiasm for their work and some drop out of formal education altogether.

36. What is needed is an education designed to foster rational thinking, innovation and discovery for all who are at school. This should be accompanied by a new approach to the production and use of books, equipment and materials, and by new perspectives in the education of those teachers who are inexperienced in making full use of the environment and the facilities it offers.

37. In these circumstances *it is recommended that very favourable consideration be given to selecting for the next Specialist Conference a theme that takes these considerations into account.* One of the aims of the Specialist Conference should be to integrate the technical and vocational content of the curriculum with science and mathematics. Another should be to examine the role that this integrated subject group should play in the general education of every boy and girl.

Seminar/Workshop on Technical Education and Industry

38. Note is taken of the Seminar/Workshop on Technical Education and Industry held in Hong Kong, for Commonwealth countries in Asia and the Pacific, in September/October 1976. It touched upon several problem areas of technical education and made recommendations involving Commonwealth co-operation within and between the regions, as well as recommendations to governments and other competent authorities for improving their training arrangements, particularly at the technician level. The purposes of the seminar were therefore to improve (a) communication between technician educators and industry, (b) the quality and quantity of training for technicians, and (c) co-operation among member countries of the Commonwealth.

39. It is recognized that this seminar will probably lead to some useful advances; on the other hand, the relationship between technical

education and industry has now been very widely discussed, academically, and the problem is to a considerable extent a national one for each country to work out in terms of its own industrial situation. The guidance that will be supplied by the Hong Kong seminar report, together with the report of one further regional seminar, should be sufficient for the region that has not been covered, particularly if an observer from that region has attended one of the previous seminars. *It is therefore recommended that one further Commonwealth Regional Seminar/Workshop on Technical Education and Industry be held.* Industry should be strongly represented at this seminar, which might consider, *inter alia*, how more encouragement could be given to each industry to train skilled personnel up to and even beyond its own requirements.

Technical Teacher Training

40. Known shortages of technical teachers ought to be made good in all possible ways. Suggestions to which further consideration should be given include:

(a) Holding regional seminars/workshops which have a training component and would also assist in analysing needs and priorities.

(b) Providing a substantial number of awards for technical teacher training under the Commonwealth Fund for Technical Co-operation's Education and Training Programme.

(c) Carrying out surveys of needs for technical teacher training facilities, conducted region by region. This would involve visits by an expert from a Commonwealth country to some countries about which insufficient material is available to the Secretariat. The work would include evaluation of training institutions and of their potential as hosts to teachers from other Commonwealth countries.

(d) Preparing a directory of facilities for technical teacher training either as part of or as a supplement to a wider directory of education and training resources.

(e) Undertaking explorations by the Secretariat along with the competent authorities into the possibility of developing special

courses for the training of trainers and key staff in technical education planning and management at a college or centre in one or more of the regions of the Commonwealth, on the lines of the regional training course held in Kenya for educational administrators and supervisors. Such courses might later justify a regional staff college on the analogy of the Colombo Plan Staff College for Technician Education if the need is better met this way than through existing institutions.

Further Surveys of Facilities for the Practical Training of Technicians in Industry

41. It is noted that a survey of technician training in the Asian region by Mr. R. Dasgupta has been published by the Secretariat, and that an earlier survey of facilities in some African countries by Dr. E. A. Akinleye could be supplemented and updated if necessary. Regional surveys in a wider area of education and training have been considered by the South Pacific Commission and the Caribbean Community Secretariat, and suggestions have been made that surveys of facilities for practical training in industry could be made in association with the wider surveys. Some doubt is felt about the scale on which information gained through such surveys would be likely to be utilized for the purpose of placing trainees from other countries in a country's national industry, and it is recommended that priority should be given to these surveys only if an obvious opportunity arises to carry them out at little expense.

Technical Examinations

42. There is widespread questioning of established systems of technical examinations, some of them heavily used but external both to the teaching institution and to the country concerned. Sometimes these systems have been rejected without a substitute system being first established, and some governments are in need of help over the solution to this problem at a national or regional level. *It is therefore recommended that a study be made of the problems encountered in technical examinations.*

An Association of Polytechnics in Africa

43. Many polytechnics, and their principals or directors personally, are far from clear about the curricula, organization and administration needed to attain their objectives successfully, and feel somewhat isolated, especially where they are unique in their countries. Several have suggested some form of association, and it is considered that a viable and useful association can best be achieved in Africa in the first place. An important role might be played by Nigeria, and the relevant authorities in that country are thought likely to welcome Nigerian participation.

44. An Association is proposed for this region in the first place because the ground appears to be ready for it, but without prejudice to the formation of associations in other regions or on a pan-Commonwealth basis. It is noted that during the 1960s and 1970s at least a dozen polytechnics and a number of comparable institutions operating under other titles have been established or developed out of smaller technical institutions in Commonwealth African countries, mainly to provide post-secondary courses for technicians and other middle-level personnel. Most of these institutions confine themselves to traditional diploma courses in mechanical and electrical engineering and building. However, new and more specialized needs are constantly emerging which cannot be met economically without co-operation between countries and between institutions; and there are many problems inherent in the education and training of technicians, who in many countries are a "new breed".

45. Such an Association would help to remove any sense of isolation of individual institutions, particularly in small countries, by enabling them to compare notes and sometimes co-operate actively over their programmes, to effect exchanges of staff and students, and to work together on many other aspects of their educational provision, their organizational and administrative development, and their corporate life. At the same time, it is recognized that the stage has not been reached where the constitution of such an Association could go ahead without further consultation. Moreover, the Conference has been informed of the interest of l'Agence de Coopération Culturelle et Technique and of the Economic Commission

for Africa both in this project and in the staff college project, and the possibility should therefore be considered of inviting francophone and other non-Commonwealth institutions to consider involvement in one way or another; the link that already exists between the Commonwealth Secretariat and those agencies can be utilized to this end. There should also be consultation with relevant teachers associations which have a legitimate interest.

46. The Conference warmly welcomes the proposal that an Association of Polytechnics in Commonwealth Africa be established, and recommends:

(a) That as a preliminary to any decision to adopt a constitution and proceed with the practical work of setting up an Association of Polytechnics in Commonwealth Africa, the Commonwealth Secretariat in consultation with the governments concerned convene a meeting in Kenya or Nigeria of the directors or principals of the polytechnics and comparable institutions which might suitably become founder members.

(b) That the Commonwealth Secretariat proceed with consultations with the appropriate authorities about the inclusion of institutions in non-Commonwealth countries.

Regional Staff College for Technician Education

47. This project also is not intended to be exclusive to Africa. It is proposed for Africa in the first place partly because of the prospects of its practicability and acceptability, and partly because a staff college already exists in South East Asia providing facilities for the Commonwealth countries, among others, of that region. (This college, established under the auspices of the Colombo Plan, is considered to have already proved its value in promoting staff development and training, in research, in providing a forum for discussion, and in the provision of an advisory and resource service to member governments.)

48. The main function of a similar staff college in Africa would be to train trainers of teachers, and to provide short courses in related subjects such as manpower planning, the comparative study of technical education systems, technical curriculum design, and institutional planning

and management. The staff college would also provide a consultancy service for governments, and would serve as a resource centre for technician education in Commonwealth Africa. A separate institution, which would require capital provision unlikely to be available, might not be needed: an extension to an existing teacher training institution might suffice, provided the institution was already doing reasonably high-level and diversified work. In that case, only a very small permanent staff would be needed, additional tutors being engaged *ad hoc* for particular courses, and both the recurrent and capital costs would be kept to a minimum. Care however must be taken to avoid unnecessary duplication and to give specific consideration to whether the needs can best be met in this way rather than through existing institutions. These institutions will need to be consulted, as will governments, before further action is taken; and the possible involvement of the E.C.A. in this project, as in the Association of Polytechnics, will need to be considered jointly. *It is therefore recommended that the desirability and feasibility of a regional staff college in Africa for technician education be explored in consultation with all interested parties.*

Commonwealth Exchange Scheme for Industrial Training and Experience

49. In the course of deliberations in the area of technical education it has become clear that one major source of weakness is a failure to complement polytechnic and college courses with appropriate practical training in industry. (This is true at the level of professional technologists as well as that of technicians.) When training in technologies or industries newly introduced or about to be introduced into a country is in question, the need for training in the industry of another and probably more developed country will arise. Existing international schemes for providing practical training and work experience in engineering and other areas involve movements mainly between developed countries or from developing to developed countries. Increased industrialization in some of the developing countries of the Commonwealth is considered to provide new scope for more genuinely multi-lateral traffic.

50. At a seminar held under Canadian and British auspices at the University of Regina, Saskatchewan, in July 1976 (at which the Commonwealth Secretary-General gave the opening address and representatives from Commonwealth developing countries also participated) it was agreed that there was a need for a much wider range of international opportunities to be opened to students — particularly of engineering at both technician and professional levels — to complement their courses of formal education (whether undertaken in a host country or their own). Commonwealth co-operation in industrial training was seen as an important component of Commonwealth industrial co-operation generally, and an important medium for the transfer of technology.

51. The scheme would be multi-lateral, but would consist, like the Commonwealth Scholarship and Fellowship Plan, of a network of bilateral schemes, with each country willing and able to do so offering awards and places for practical training or experience and receiving candidates nominated by other Commonwealth countries in the same way that Commonwealth Scholars are nominated and received. The whole cost of the awards would not necessarily fall upon every receiving country, since it is within the terms of reference of the C.F.T.C. to include such awards in its existing Education and Training Programme; contributions from donor governments, trusts, and industry could be canvassed. The proposed scheme would fulfil both the conclusions of the Regina Seminar and those put forward in the background paper submitted by the Commonwealth Science Council, "Industrial Training Programme", giving details of the types of project-oriented training and industrial fellowships that might be instituted. The Secretariat would expect to have a role of encouragement, co-ordination, and pump-priming.

52. It is recommended that:

(a) *Governments give their full support to a Commonwealth Exchange Scheme for Industrial Training and Experience.*

(b) *The Secretariat should in the first place set up a working group to explore the feasibility and the modus operandi of this programme, on a basis analogous to that of the Commonwealth Scholarship and Fellowship Plan.*

The Commonwealth Book Development Programme

53. The major objectives of the Commonwealth Book Development Programme are threefold: namely, to strengthen national self-reliance in the production and provision of books; to provide training courses for book industry personnel; and to assist in improving the two-way flow of books.

Strengthening National Self Reliance

Textbooks and Curriculum Renewal

54. The preparation of new school curricula has stimulated the preparation and production of new textbooks and other educational materials. Some of these materials are published by state and parastatal organizations, others by multinational companies and private concerns. In a number of Commonwealth developing countries, the emergence of indigenous educational publishing has been among the major educational achievements of recent years. Nevertheless, some problems still exist.

55. One of the problems is the spiralling cost of providing pupils with the materials they need; a cost which, in a developmental programme, has to take into account both the replacement or reprinting of existing titles and the provision of new ones covering a wide range of subjects. In order to prepare accurate forecasts of expenditure on these items, it is necessary for governments to formulate a clear national policy on the role that books and other educational materials should play in meeting children's needs. These needs should be related not only to immediate educational aims but to the creation of an adult public which continues to use and value books, and for this reason the policy should not be confined to children but be extended to take into account the whole community.

56. Many developing countries are heavily dependent on imports of paper and other raw materials to keep their publishing industries functioning. In view of the growing world paper shortage — which is expected to reach crisis proportions in the next few years — governments should note, as a matter of urgency, the need to investigate the extent to which locally-

produced raw materials can be used in the manufacture of paper. Otherwise those countries that rely on imports may find that the price of paper on the world market is too high to enable them to maintain existing import levels, with the result that their plans for producing books and other printed materials cannot be fulfilled.

57. It is important not only to make more use of locally produced raw materials but to prevent waste. In many instances, economies can be effected in the production of books. For example, advance knowledge of a country's textbooks requirements can serve as the basis for purchasing the most appropriate printing machinery. Again, restricting textbooks to a few standard page sizes and to convenient lengths can simplify production techniques and prevent wastage of printing paper. Possibly, also, the waste paper normally disposed of by schools could be collected on an organized basis and re-cycled for further use. *The Commonwealth Secretariat should keep in touch with innovations and experiments in paper and book technology throughout the world, and communicate whatever information it obtains to Commonwealth governments.*

58. The production of books should not be considered in isolation from their distribution. In countries where book distribution is a problem, *the Commonwealth Secretariat should consider arranging study visits to successful book distribution organizations that exist in Commonwealth developing countries.*

National Book Development Councils

59. Among the functions that National Book Development Councils can undertake if they are adequately funded and professionally staffed are the encouragement of indigenous authorship, the provision of specialist information (e.g. on authors' agreements, copyright, etc.), the promotion of the reading habit, the co-ordination of the various arms of the book industry, the organization of writing workshops and training courses, the improvement of book distribution channels, the organization of literary competitions and book fairs, and the efficient matching of external aid to local needs. Where they exist they can serve as the main point of contact with the Commonwealth Book Development Programme.

60. In view of the valuable part that these Councils can play in national cultural and educational development, it is noted with some regret that their establishment in Commonwealth countries is proceeding slowly. Except in cases where assistance to the book industry is provided by other organizations (e.g. Arts Councils) governments are urged to renew their efforts to establish National Book Development Councils where they do not already exist.

61. *It is recommended that the Commonwealth Secretariat should continue to provide assistance to the work of existing National Book Development Councils in Commonwealth developing countries and to help in establishing new ones.* One useful form of assistance would be to arrange for their personnel to visit other Book Development Councils in Commonwealth developing countries.

Reducing the Dependence on Imported Publications

62. In order to create employment, conserve foreign currency, and keep down the price of books, some developing countries have become increasingly interested in reprinting rather than purchasing books originating in other countries. In these circumstances, the question of international rights arises, and the Commonwealth Secretariat's publication *Copyright in the Developing Countries* — first published in 1974 and revised in 1976 — has made a useful contribution in explaining in non-legal language the main features of the Berne and Universal Copyright Conventions. The booklet has been translated into Sinhala and Tamil by the National Book Development Council of Sri Lanka, and translation requests from other sources have been received and granted. It is noted that in response to a recommendation of the Sixth Commonwealth Education Conference, publications produced by the Education Division of the Commonwealth Secretariat contain a statement that governments of Commonwealth developing countries wishing to reproduce the material in whole or in part in any language may do so.

63. It is suggested that those Commonwealth countries that are not yet members of the international copyright community should consider joining it in order to safeguard the interests of their writers, artists, musicians and other citizens who make their living in a creative way.

Libraries and Media Resources for Schools

64. The Conference endorses the view expressed by the Commonwealth African Book Development Seminar, held at Ibadan, Nigeria in 1975, that the role of libraries should be to support interest-centred rather than fact-oriented learning. In all societies, but particularly in those with a rich culture of folklore, festivals and oral traditions, these libraries should endeavour to be "media-resource centres". Wherever possible they should contain books selected to be of particular relevance to the school or community they serve, a wide variety of non-book materials, and the equipment required to make these materials effective. Other functions these centres can perform are the production of inexpensive home-made materials and the organization of teaching programmes to make the best use of the resources.

65. Because the cost of establishing these centres lies beyond the reach of all but a few individual schools, governments may wish to consider establishing them on a national or local scale, along with model centres located, perhaps, at teacher training institutions. It is noted that the Commonwealth Secretariat is proposing to prepare the draft of a handbook for newly appointed teacher-librarians setting out the basic procedures for organizing a school library and media collection centre, and making suggestions for carrying out teaching programmes within an organized library. The draft will, in due course, be made available to governments so that they can arrange, if they wish, to modify the text to meet particular circumstances.

66. It is noted that an international computer-based system for the rapid retrieval of information (Educational Resources Information Centre — ERIC) has been developed. The possibility that an increasing number of Commonwealth countries could participate in, and benefit from, this system is a matter which the Commonwealth Secretariat may wish to consider.

Local Language Publishing

67. In order to educate children in their mother tongue and strengthen national cultures, increasing numbers of books are being published in national and local languages, and

many more are required. It is noted that the Commonwealth African Book Development seminar recommended governments: (a) to consider employing officers to look after the interest of each national language, and (b) to give every possible encouragement to writers, editors, publishers and other personnel to produce books in these languages. Of necessity, much of the work will have to be undertaken on a national basis, but bilateral assistance in such fields as orthography, typography, readability, book design and printing techniques would be a valuable form of aid from those countries with experience in publishing in more than one language. Governments may also wish to note that certain international funding organizations, such as the World Bank, are taking an increased interest in locally-produced textbooks.

Providing Training Courses

68. It is noted that the three regional book development seminars organized by the Commonwealth Secretariat (New Delhi, 1973; Port-of-Spain, 1974; and Ibadan, 1975) all stressed the need for initial and in-service training at a number of different levels for a wide range of personnel. It is also noted that in responding to these expressions of need, the Commonwealth Secretariat organized a planning meeting in London (December, 1975) at which draft outline syllabuses of a foundation course and seven linked modules were prepared on special areas of book production.

69. *The planning meeting's recommendation that the Commonwealth Secretariat's book development programme should give high priority to supporting the establishment of courses in book production at regional training centres in Commonwealth developing countries is endorsed.*

70. It is noted that the first of these courses is due to be held in Guyana for the Caribbean from July–September 1977, and it is recommended that further such courses, designed to meet regional needs, be held at other centres. It is further recommended that governments should consider selecting participants for these courses who, on their return home, will not only be more effective in their work but will be able to contribute — if only in a small way — to running book production courses on a national or local scale.

Improving the Two-way Flow of Books

71. Despite the growth that has taken place in their book industries, developing countries are importing far more books than they export. However, various measures are being taken to achieve a better balance. One of these is the provision, primarily on a national basis, of an information system which gives basic data about every title that is published. Most important of all is the publication by every country of a national bibliography because this, in some cases, may be the only authoritative source to which bookshops, libraries, and other potential purchasers can turn for information on what publications are available. It is noted that in order to help national bibliographies to be made available to a wide audience, the Commonwealth Secretariat has published an annotated directory entitled *Commonwealth National Bibliographies*. It is also noted that the working party that assisted the Secretariat in preparing this publication reported that although it was desirable that each country should prepare its own national bibliography, in a number of Commonwealth developing countries bibliographic information about local publications is being collected and published by developed countries. As a result, the development of professional skills in the developing countries concerned is being retarded.

72. It is recommended that:

(a) Governments should take action, where necessary, to give increased support to the preparation and publication of national (and in some cases, regional) bibliographies.

(b) Bilateral financial assistance should be sought, if necessary, to support the publication of the first issue of a new national (or regional) bibliography.

(c) The Commonwealth Secretariat should endeavour to make arrangements to advertise Commonwealth national bibliographies in journals which specialize in publicizing bibliographic information with a view to increasing the sales of these bibliographies to libraries and other institutions throughout the world.

(d) The Commonwealth Secretariat, through the mechanism of the C.F.T.C. should consider:

(i) providing consultants to help to establish national bibliographies where they do

not already exist, and

(ii) providing financial support to assist Commonwealth developing countries to send a delegate to important international bibliographic conferences.

73. It is noted that the Commonwealth Secretariat consulted with UNESCO and other international organizations in the preparation of *Commonwealth National Bibliographies* and *Copyright in the Developing Countries* so as to prevent any duplication of activity.

74. The publication by the Commonwealth Secretariat of *Commonwealth Specialist Periodicals* — an updated and enlarged version of an earlier publication (*the Directory of Commonwealth Periodicals*) — is also noted. Originally, this directory was intended to accompany the Commonwealth Gift-Voucher Scheme, first approved in principle by the Heads of Government Meeting in 1971 and subsequently recommended later that year by the Fifth Commonwealth Education Conference. Attempts to put the scheme into practice were unsuccessful owing to lack of financial support, and the proposal was reconsidered by the Sixth Commonwealth Education Conference in 1974. It emerged as a considerably less expensive three-year pilot project to provide professional journals to universities and other institutions of higher education in five Commonwealth developing countries. Even so, it was felt that £100,000 would be needed to finance the pilot project successfully. Shortly after the Conference ended, the Secretariat prepared detailed proposals for administering the pilot project and submitted them to the Commonwealth Education Liaison Committee for consideration. Financial support was still not forthcoming despite the fact that the sum of money sought was further reduced to £40,000 or £50,000 and that Britain was willing to provide at least 30% of the funds.

75. Owing to a shift of emphasis away from university education, it is believed that if the scheme is to succeed at all, it should be applied to the whole of the educational system from basic education upwards. It is therefore recommended that:

(a) The scheme should be redesigned so as to enable the Commonwealth Secretariat to provide educational libraries and curriculum development units in Commonwealth devel-

oping countries with some of the “books about books” and other items of publishing material and equipment they need to operate more effectively.

(b) Britain should be invited to transfer its original offer of financial support to this new project.

(c) All other member states should be asked to contribute so that sufficient funds are raised to enable Britain’s offer to become effective.

76. It is noted that the Commonwealth Book Development Programme has so far had no funds of its own, and that not all the projects recommended here fall within the terms of the Commonwealth Fund for Technical Co-operation. Accordingly, *the Commonwealth Secretariat should explore the possibility of getting member countries to provide the funds necessary to support those aspects of the Book Development Programme that are not catered for by the C.F.T.C. or by the proposal in the previous paragraph.* In addition, the major donor countries are urged to continue to support bilateral aid programmes for book development, and the Commonwealth as a whole — through the Commonwealth Secretariat — should endeavour to direct the attention of funding agencies outside the Commonwealth to the need for their assistance in expanding book development in Commonwealth developing countries.

77. Choosing priorities for book development is not a simple task because its various components should not be allowed to get out of step with one another. Even so, attention is drawn to the need for preventing the impending paper shortage from threatening the output of books and other printed materials in Commonwealth developing countries. As for the Commonwealth Book Development Programme, emphasis should be placed on various forms of training (in particular the provision of regional seminars designed to meet national needs), on study visits, and on the proposed replacement for the gift-voucher scheme.

Education Media

78. Educational technology has been increasingly used in Commonwealth countries; some of

it taking the form of sophisticated colour television, language laboratories, teaching machines, and computer terminals. Formerly, this technology was evaluated first and foremost in terms of its contribution to strengthening the professional skills of teachers. Nowadays, in the light of experience and economic constraints, the use of expensive equipment is being more carefully scrutinized in relation to the availability of less costly alternatives. In addition, most school systems are combining various forms of educational media to attain objectives. Studies of cost effectiveness of media need to take account of these inter-relationships so as to determine the most effective combination.

High Technology

79. The Commonwealth Educational Broadcasting Conference held in Sydney, Australia, in 1975 brought together for the first time Commonwealth broadcasters and educators to study the contribution that broadcasting could make towards educational development.

80. The experience of Commonwealth countries in educational broadcasting is now substantial, some having been involved in it for over 50 years. Even developing countries have now had considerable experience, with several having succeeded in integrating radio and television fully into the teaching programmes of their schools. Educational television programmes can no longer be regarded as an urban luxury.

81. Common problems experienced in educational broadcasting have included technical faults, usually occurring in the reception equipment, difficulty in sustaining an output of consistently good quality programmes, and weakness in evaluating the effectiveness of programmes. The Indian experiment with satellite broadcasting tackled each of these problems methodically. It set up maintenance units to service all the equipment used. In addition, it trained producers in the techniques of television production and acquainted them with detailed research findings on the composition, interests and receptiveness of their village audiences, and the limitations that such unsophisticated audiences presented for the conventions of various types of filming technique. To take another example, Malawi conducted research

into the effectiveness of its school broadcasting, and discovered a great disparity between its acceptance at primary and secondary levels. In consequence it has adopted a tape service for secondary schools which has proved more satisfactory.

82. The potential of educational broadcasting as a medium of distance teaching is being realized increasingly. Many programmes to upgrade teachers have taken place in Africa. Likewise for health, rural development and family life, radio and television programmes have been remarkably successful.

83. Closed circuit television is now used in a variety of teaching contexts including micro-teaching. But the high cost of purchasing, maintaining and repairing equipment (such as monitors, video recorders and tape) has deterred many users and prevented the potential of closed circuit television from being realized.

84. The prime need in educational broadcasting is to have trained personnel — teachers trained as broadcasters, broadcasters trained to educate, and technicians trained to service and repair equipment. Additionally there needs to be training for teachers in how to make the best use of educational broadcasting. Such training should feature in all teacher training courses.

Correspondence Education

85. Correspondence education is now an accepted medium of instruction. It has been used to teach at all levels of education and over a wide range of subjects including technical education, science and agriculture. In certain circumstances it offers education at less cost than conventional means and therefore has its attractions for developing countries. In Malawi, for example, correspondence education has become an accepted alternative to conventional secondary schooling, and a number of local centres have been built through community action. In these centres young people can follow correspondence courses under the guidance of a teacher. The salaries of these teachers are paid by the government.

86. The particular advantage of correspondence education does not lie so much in its lower cost but in its ability to deal simultaneously with large numbers of students. This

has made it of considerable value for crash programmes such as upgrading teachers or for providing in-service training for particular groups of teachers such as heads or subject specialists. It has also proved popular among teachers as a self help method of furthering their education, and it holds out attractive possibilities for the training of teacher educators. The weakness of correspondence education lies in its need to have an effective infrastructure of postal services, and specialist tutors who are familiar with the medium. In addition it needs an element of face-to-face teaching to be successful.

Low Cost Teaching Materials

87. Many teachers shy away from costly and sophisticated equipment, choosing instead low-cost equipment which is readily available and over which they have greater control. This is a commendable practice and should be encouraged, but it requires appropriate training. Essentially, such training must be practical, and is best conducted in the form of workshops. *The Commonwealth Secretariat should consider holding workshops to stimulate this kind of training.*

The Specialist Conferences

88. Note is taken of the two linked specialist conferences held since the Sixth Commonwealth Conference. These were the Commonwealth Conference on Materials for Learning and Teaching held at Wellington from 22 September to 3 October 1975, and the Commonwealth Educational Broadcasting Conference held at Sydney from 7 to 16 October 1975.

89. The recommendations of the Commonwealth Educational Broadcasting Conference were endorsed with the request that special attention be given to the following:

(a) Governments, education authorities, and agencies responsible for educational broadcasting should finance appropriate research to evaluate existing and pilot projects in educational broadcasting.

(b) The Commonwealth Secretariat (in association with other agencies and international organizations where appropriate) should consider:

(i) Collecting and disseminating informal opinions on the effectiveness of the contribution of educational broadcasts.

(ii) Co-ordinating an evaluative study of educational broadcasting in the Commonwealth, and disseminating the resulting information to member countries.

(iii) Initiating an enquiry into the problems associated with copyright and contracts in educational broadcasting with a view to enhancing flexibility for the users while protecting the interests of producers and distributors.

(iv) Organizing regional courses for the training of middle-level personnel in educational broadcasting.

90. The recommendations of the Commonwealth Conference on Materials for Learning and Teaching were endorsed with the request that special attention should be given to the following:

(a) Educational authorities should ensure that:

(i) When budgets for the purchase of new equipment are being prepared, or contracts are being awarded, long-term considerations of supply and support should be borne in mind as well as short-term financial benefits. Qualities of durability and simplicity are often preferable to ideal standards of refinement and sophistication.

(ii) Consideration is given to setting up audio-visual advisory groups to investigate and make recommendations for the technical standards, purchase, storage and utilization of equipment and materials.

(iii) Mobile maintenance units are provided where other arrangements for servicing and repairing equipment are unsatisfactory.

(iv) Information about appropriate practices and materials associated with educational technology is widely disseminated.

(b) Governments are urged to:

- (i) Establish tape copying and exchange services as a necessary support to educational broadcasting.
- (ii) Make special provision of teaching materials for the teaching and learning needs of handicapped children.

(c) The Commonwealth Secretariat (in association with other agencies and international organizations where appropriate) should consider:

- (i) Disseminating as widely as possible among member countries, information on developments in educational equipment, educational materials, and related teaching and learning procedures.
- (ii) Establishing a clearing house which would assist Commonwealth countries to obtain reproduction rights for educational materials among member countries.
- (iii) Reaching agreement on a common system of cataloguing non-book materials.
- (iv) Investigating the design of equipment, including unsophisticated equipment, which meets the educational needs of member countries, and disseminating the results of the investigation.
- (v) Assisting member countries in evaluating educational equipment and materials, in a manner that takes into account their costs and their benefits.
- (vi) Assisting the interchange of educators between Commonwealth countries for short periods so as to enable them to gain insights into teaching practices and the preparation and provision of educational materials.
- (vii) Collecting and disseminating information on the experience gained by Commonwealth countries in various forms of individualized and group learning procedures.
- (viii) Setting up regional centres for initiating educational research and development and for improving communications between the Secretariat and member countries.

(ix) Encouraging and providing assistance for national and regional programmes relating to educational materials.

(x) Consulting with appropriate organizations about the qualities required of educational equipment and materials to be used and stored in regions of climatic difficulty.

(xi) Encouraging research into ways in which schools can make use of materials that are normally discarded.

Curriculum and Examinations

Curriculum

91. Educationists and education authorities have long recognized that education must respond to the needs of society; and education conferences and commissions have over the years recommended that those responsible for education in each country should make education relevant to national policies and needs through curriculum renewal. Yet the situation has remained practically unchanged in many countries.

92. The best examples of curriculum renewal reveal that successful implementation is the result of new curricula fulfilling clearly formulated and well publicized national educational objectives. It is recognized too that curriculum reform should be accompanied by appropriate services for the production and supply of teaching materials and the in-service training of teachers affected by the new curriculum. It is therefore recommended that curriculum planning units should ensure that moves towards the launching of a new curriculum are not made until provision has been made for the equipping and training of teachers.

93. Some common strategies of curriculum development are:

- (a) Minor changes to improve the relevance of a curriculum.
- (b) More fundamental changes that require the restructuring of subjects and possible integration.

(c) Continuous small curriculum developments to avoid sudden and dramatic changes of content and teaching methods that necessitate the retraining of teachers.

(d) Curricula for non-formal education.

94. Jamaica is one example of a country that has recognized the centrality of the curriculum by establishing a department with responsibility for all related matters such as planning, evaluation, media research, counselling and guidance.

95. It is recommended that where such departments exist, they should have high status within the machinery of educational administration and be staffed appropriately with senior and specialist personnel. *It is also recommended that the Commonwealth Secretariat should offer assistance in the training of curriculum personnel, facilitate the exchange of curriculum materials between member countries, and provide opportunities for curriculum planners to meet to discuss common problems.*

Examinations

96. Examinations have traditionally been an integral part of the curriculum and an inseparable part of the process of education, yet there has been a continuing debate as to what their proper role should be — whether that of attainment or that of providing a basis for selection for further education and employment.

97. There is a strongly-held view that examinations should not be the sole basis of selection, but should share with individual assessment any accounting towards selection. In Singapore, at the primary level, agreement with this view is evident from the fact that examinations count for 60% while school reports count for 40%. In Tanzania the proportion is equal at 50% for each.

98. A serious effect on developing countries resulting from efforts to make university qualifications internationally acceptable has been the brain drain. While such comparability may be useful and desirable, individual interests should take a subservient position to the needs of national development and should not deny to a country the benefits of its most gifted people.

99. If more of the people who have vested interests in examinations had influence on the content and methods of examinations, the results might be very different from those that result from the present system which is largely controlled by the universities.

100. Regional examination councils are useful when countries are still expanding their educational systems and are unable to support their own examining bodies. But such councils should be transitional and be dispensed with as soon as countries are capable of organizing their own examinations. For this reason *the Commonwealth Secretariat should provide assistance in the form of consultants and advisers for countries anxious to review their examination systems.*

101. The best way of co-ordinating the work of curriculum planners and examining authorities effectively is to put total responsibility for both in the hands of one body. Since curriculum lies at the heart of education, the major share of responsibility might be given to the curriculum planners. So important is the need for such co-operation that it is recommended that the Commonwealth Secretariat should consider arranging a specialist conference to examine curriculum planning and educational assessment.

Proposed Commonwealth Programme of Applied Studies in Education

102. The Report of the Study Group which met in London in May 1976 has been considered at some length, and particular attention has been paid to the programme's objectives, approaches, problem areas, mode of operation, financing, direction and co-ordinating arrangements.

103. The principle underlying the objective and approaches of the proposed programme is accepted. In order to maximize the benefit of investment in education, it is valuable to draw upon the expertise of other disciplines to help solve certain urgent educational problems.

Moreover, because the field of education is broadly based and aims at satisfying a multiplicity of consumers, a concerted effort ought to be brought to bear to find solutions to educational problems. This will help to attract the active support of all concerned.

104. It is accepted that individual countries should be left to identify their own problem areas and seek assistance if required. However, some problems (e.g. premature school leavers and the provision of low-cost teaching materials) are shared by a number of countries. An examination of suggested problem areas has shown that some of them are so complex and involved that they may not lend themselves to easy solution within the programme's constraints of time and financial resources. Thus, investigation into such subjects as premature school leavers or the diversification of secondary education — though of major concern — may not be easily accomplished with modest means; nor would the investigation be likely to bring forth tangible results. On the other hand it is strongly felt that for a subject like low-cost teaching materials, investigation should be capable of producing practical and useful results. *It is therefore recommended that the problems of producing low-cost teaching materials be taken up for investigation as a pilot project between this Conference and the next. The results should be reported to the Eighth Conference as a basis to consider the future of the programme.*

105. The Commonwealth Secretariat should consider carrying out this investigation by assembling a small team of specialists to report on the result of findings which should be widely disseminated to member countries. It is hoped that the Commonwealth Secretariat will be able to provide the funds from within its formal budgetary provision. The Secretariat should also be responsible for the supervision of the project.

106. As an adjunct to the programme, *it is considered desirable to publish a bulletin for the purpose of publicizing educational problems and their solutions so that member countries can learn from one another's experience.*

107. *Specifically, an information paper on recent curriculum reforms attempted in secondary schools in various member countries should be produced for consideration at the next*

Commonwealth Education Conference, and be distributed at least six months before that Conference.

Administration and Supervision of Education

108. Considerable efforts have been made by the Commonwealth Secretariat to promote the training of personnel in the field of educational administration and supervision. Activities have included a series of three regional seminar/workshops held at Freetown in 1973, Georgetown in 1974, and Kuala Lumpur in 1975. These were followed by a planning meeting in Nairobi in November 1975 to draw up suitable training courses. The first regional training course was started in January 1977 at the University of Nairobi and will be completed by the end of March. In collaboration with the Commonwealth Council for Educational Administration, the Secretariat has published a *Directory of Qualifications and Courses in Educational Administration*.

109. The Nairobi course, attended by fairly senior officials, is aimed at training trainers in educational administration. It is expected that when they return home the participants will organize training courses in their own countries.

110. An interim report has indicated that participants are keen on the course and are making good progress. However, there is some indication that the course may be attempting to cover too many topics, and in future concentration on a few specialized areas of administration, and on the needs of special groups involved in the administrative process, may be preferable. Since administrative styles and practices vary greatly, a practical approach may not be enough, and some theory may be necessary to enable administrators to adapt courses to national needs. It may also be necessary to carry out further examination of the nature of the administrative process in those countries for which a course is intended.

111. It is agreed that a great need exists for the training of personnel in the field of educational administration and supervision. In organizing

future courses, consideration should be given to the following:

- (a) The need for in-depth training in areas of special concern combined with some training in related areas.
- (b) The selection of a homogeneous group in terms of duties and level of responsibility.
- (c) Emphasis on short and practical in-service training courses.
- (d) The theoretical basis of topics studied.
- (e) The need for further research into the administrative processes of the countries concerned.
- (f) Appreciation of relationships between administrators and their authorities, school committees, teachers, parents, and other special interest groups.

112. For the purpose of certification of participants in these regional training courses, only certificates of attendance should be issued. These should indicate the period of training and the topics studied.

113. Regional training courses might be of two kinds: (a) those designed for the training of top-level administrators; and (b) those for the trainers of middle-level administrative personnel such as inspectors or principals.

114. On the question of training costs, distinction must be made between regional and national training courses. *The Commonwealth Secretariat should continue to organize regional training courses and be responsible for the expenses of a minimum number of participants from each participating country.* Participating countries should pay for any additional participants they send. In those cases which the Commonwealth Secretariat is unable to fund in full, governments should be asked to contribute towards the cost of travelling or the subsistence allowance. The principle of sharing costs with participating governments is recommended because it is felt that this may improve the feedback information and thus help with the evaluation of the courses. Moreover, people tend to value what they pay for. The cost should not be so high as to deter participation by poorer countries.

115. As regards national courses, these should be largely the responsibility of governments,

which might consider making provision in their normal budgets for the purpose. If assistance is required to obtain the services of consultants, an approach may be made to the Commonwealth Fund for Technical Co-operation which will be willing to assist if funds are available.

116. In summary, it is recommended that:

(a) The Commonwealth Secretariat should continue to organize regional training courses for high-level administrators and trainers in the field of educational administration and supervision.

(b) Participating governments should (i) be responsible for the expenses of additional participants over and above the number to be supported by the Commonwealth Secretariat; or, (ii) make a contribution towards the cost of travelling or the subsistence allowance.

(c) Certificates of attendance be issued for regional training courses, and these should state the period of training and the topics studied in some detail.

(d) Governments should consider making provision in their normal budgets for training personnel in educational administration and supervision; and the Commonwealth Secretariat should consider providing assistance through making available consultants to help run these courses.

Non-formal Education

117. Although the meaning of the term non-formal education varies from country to country, there is a clear need to find alternatives to formal education, particularly in the current climate of world inflation and economic recession. Governments often experience considerable difficulties in meeting the demands for more and better education. Questions have therefore been raised in many quarters about the form and effectiveness of education systems.

118. Interesting experiences have been noted in a number of countries.

(a) In Canada, for instance, some children find it difficult to respond to a highly insti-

tutionalized system of learning, and emphasis has therefore been given to such non-formal programmes as correspondence education, educational broadcasting, part-time schooling and short courses to meet specific interests and needs within the country. Other programmes exist by which persons can attend school part-time and participate in informal learning in occupational fields.

(b) Australia has a national council to assist curriculum development, the work being undertaken by the Federal Government in partnership with the six states. The present programme is aimed particularly at the lower secondary school. Among the problems encountered are those relating to premature leavers and the increasing unemployment of school leavers. Some pilot schemes are being conducted in an attempt to discover causes and remedies. It is expected that technical colleges will play a major role in this area.

(c) In Nigeria, non-formal educational activities are organized mainly by the state or local governments. In the Third National Plan, adult education has, since 1975, become the concern of the Federal Government: it has as its aim the provision of appropriate education and training for all Nigerians.

(d) In Britain, the adult literacy campaign receives strong voluntary support. Television and radio are utilized and supplemented through the provision of correspondence teaching materials. The work of the Open University is a good example in this regard. Considerable efforts are being made also to minimize the problem of unemployed school leavers by finding short-term jobs for them (if possible with related education), and to experiment with general education and training or assessment courses.

(e) In Guyana, non-formal education concentrates on the provision of functional literacy programmes. Though it is funded by the Government, it is largely administered by non-governmental institutions.

(f) In Malawi, adult education and training programmes are administered by a number of government ministries and agencies. Training programmes include courses in health work, rural development, agriculture, library services, auto-repairs and craft work. To increase co-ordination in the planning and

implementation of programmes, the creation of a National Advisory Council is under active consideration.

(g) In Swaziland, the government has set up an interministerial committee, headed by the head of the Civil Service, to co-ordinate various non-formal education schemes run by various ministries. At the local level, rural education centres are being set up to co-ordinate such programmes.

(h) Kenya's non-formal education system is well developed and is directed by various ministries and voluntary organizations. The village polytechnics arrange relevant training courses aimed at assisting young citizens to be self-reliant. The University of Nairobi has an extramural studies department which deals with adult education programmes. It also disseminates information on multi-purpose development centres, the national youth service, and the work of government ministries and agencies involved in adult education.

(i) The Gambia government has decided recently to explore the possibility of establishing a programme of non-formal education. A UNESCO expert has been appointed to advise the government, and a report is awaited.

(j) In Bangladesh, the responsibility of organizing and co-ordinating non-formal education programmes is vested in the Ministry of Education, and is administered in close co-operation with a number of other ministries and relevant bodies.

(k) Lesotho sees non-formal education as a means of relieving the pressure on limited education and training facilities. The Lesotho Distance Teaching Centre was established recently as part of a new polytechnic, and is intended to act as a co-ordinating agency for non-formal education. Additional resources include a library centre and mobile library services. There is also a special scheme to assist in the education and training of nomadic communities.

(l) In Ghana, on the suggestion of a UNESCO Literacy Mission, a 36-member National Working Party on Literacy has been set up to review the Literacy Programme and integrate it effectively with the Community

Development Programme. It has identified the problems and made recommendations to the government for action. Following on this, an Experimental Functional Literacy Programme has been launched to cover 6,000 persons in the experimental year. A serious problem encountered is the lack of writers for the type of literature required, and as a result a corps of writers has had to be recruited and trained for the purpose.

119. In general, the problems encountered by member countries in the provision of non-formal education are as follows:

- (a) The retention of literacy amongst primary school leavers or premature school leavers.
- (b) The fact that vocationalizing secondary education can be much more expensive than the provision of ordinary secondary education.
- (c) Unemployment arising from the production of school leavers with no saleable skills.
- (d) The difficulty of reorientating the attitudes of students, teachers, parents and other groups in the community towards the needs of a changing society.
- (e) Developing more effective ways and means of providing education for nomadic communities.
- (f) Strengthening the motivation for learning.
- (g) Training teachers for various types of adult education.
- (h) The need for designing and producing relevant teaching materials for non-formal education.
- (i) Creating an effective agency for co-ordinating non-formal education and training activities.

120. *Support is given to the Secretariat's proposals in connection with the organization of surveys, case studies and pilot projects in the field of non-formal education, and it is recommended that when carrying out these proposals due consideration should be given to the above-mentioned problems.*

Teacher Education

121. The recommendations of the past six Commonwealth Education Conferences, together with those of the Specialist Conference on Teacher Education in a Changing Society held at Nairobi in 1973, have all recognized the key role of teacher training in improving education. These conferences have highlighted a number of issues that require action. They include the training of teacher educators, teacher education, the status of teaching as a career, and teacher support services. For the Seventh Commonwealth Education Conference, the additional matter of national policies on education and training has been raised for consideration.

National Policies on Education and Training

122. Many Commonwealth countries are still in the process of formulating their national educational policies, and as a result teacher training has yet to be closely geared to the needs of the school. In addition, the various stages in teacher education — initial training, induction and in-service training — are still not well co-ordinated. In-service training is frequently organized on an *ad hoc* basis or allowed to become the first victim of financial cuts in training. The problem is very real and requires deliberate action in the form of policy decisions about educational objectives and ways in which these objectives can best be achieved.

123. Initial training, induction and in-service training of teachers should be recognized as aspects of one on-going process of teacher education; and teacher education should be considered as inseparable from the process of curriculum change and development. Co-ordination of all education and training resources is also vital if the piece-meal approach to teacher education is to be overcome.

124. For these reasons it is recommended that governments should be encouraged to incorporate all aspects of the training of teachers within coherent policies of teacher education and to allocate adequate resources to give these policies reasonable hope of success.

The Training of Teacher Educators

125. In a number of Commonwealth countries teacher educators are in short supply. It is apparent from the manner in which teacher educators tend to be recruited and trained that the kind of person preferred is the one who has proved effective as a teacher rather than the one who has merely amassed academic qualifications. This preference does not imply that the training of teacher educators should not be based on sound academic and professional training, for these are important, but that the skills that the teacher educator must impart to his students are those that are learned in the practice of teaching.

Teacher Education

126. Conventional means of training teachers in monotechnic institutions tend to be relatively expensive and to attract teachers from a rather narrow section of the community. For this reason, countries might consider alternative ways in which teachers can be trained and means by which entry to the teaching profession may be broadened. While it is recognized that standards should be maintained, consideration should be given to offering teacher training to people with the qualities that make good teachers and not just to those with academic qualifications. Teachers with potential, whether they are untrained or under-trained, should be given opportunities to become more competent. In providing these opportunities, attention should be paid to different modes of training and to the content of courses.

127. Many Third World countries recognize the need to give priority to pre-vocational subjects in schools so that primary school leavers can be self-employed or semi-employed. Such education might require that teaching depart from the over-emphasis on traditional methods of training in basic number and language skills, and incorporate the development of vocational skills, such as crafts and farming which, apart from their intrinsic value, can be used to reinforce basic number and language skills.

128. New training programmes for various levels of teachers are being developed in many

countries. For instance, in Nigeria the National Teachers Institute has evolved a programme for mass training and in-service training through the use of mass-media resources and the best available resource persons from the community. Ghana has introduced a three year post-secondary teacher training course to train teachers in the sciences, liberal arts subjects and pre-vocational subjects such as commercial and business education, home science, crafts (weaving, pottery, tailoring, dress making) and agriculture. Britain places considerable emphasis on helping teachers to take responsibility for their own in-service training. In the Eastern Caribbean, there is an associate scheme whereby teachers are given an opportunity to develop a closer relationship between principles and practice in the school.

129. *In the light of the increasing variety of training being offered, the Commonwealth Secretariat should commission a study of alternative methods of training teachers. It should disseminate information on these methods and be prepared to offer assistance in implementing them.*

130. In-service training is of key importance to the maintenance of standards in the schools. Teachers should not be expected to implement new methods of teaching or tackle new curricula without in-service training. It is vital, therefore, that programmes of in-service training should be planned within the context of teacher education as a whole.

131. A wide variety of resources should be incorporated in training programmes. For example, greater use can be made of the community, business houses, and other public and private organizations. Teacher organizations can play an increasing role in teacher development, and educational institutions (such as universities, institutes of education, polytechnics, teachers' colleges and teachers' centres) and Ministry of Education inspectors and advisers, can contribute more effectively to training by ensuring that efforts are co-ordinated. Only by harnessing all available resources can in-service training be made more cost effective. *The Commonwealth Secretariat should organize regional workshops that aim to assist countries in tackling problems and sharing ideas associated with teacher education.*

Teachers and Teacher Support Services

132. In some countries the wastage rate in the teaching profession is unacceptably high. Often low morale lies at the root of the problem, and this can be attributed to poor career structures, difficulty in job switching within teaching, salary rates that compare unfavourably with other forms of employment, poor support for teachers on the job, and a sense of insecurity. Morale could be greatly improved if teachers were more fully involved in professional matters and if action were taken to rectify these problems.

133. One of the main causes of the insecurity felt by many teachers is the lack of support they receive. Often this begins as soon as they take up their first appointment, when their head-teacher gives them their timetable, books and equipment and leaves them to get on with the job. But the sense of insecurity is aggravated by the fact that few countries appoint anyone to supervise in any meaningful fashion the teacher's first year in school. College tutors are unable to follow up their students when they leave college; inspectors often have too many schools to supervise to give adequate time to individual teachers.

134. There is therefore a need to provide teachers with strong support services. These can be considered as consisting of advisory, training and technical services, and may include professional associations, units or groups for the evaluation of teaching materials, advisers, training institutions, distance teaching organizations, school inspectors, teachers' centres, in-school administrators, repair and maintenance units, media production units, multi-media library services, and resource centres. Such support services urgently need to be strengthened, and *the Commonwealth Secretariat should endeavour to organize regional in-service training workshops aimed at assisting countries to strengthen their teachers' support services.*

Education about the Commonwealth

135. Education about the Commonwealth has been a topic of discussion at previous Commonwealth Education Conferences, and the subject

of a number of recommendations. Thus, Group D at the Fifth Commonwealth Education Conference recommended that, "All member countries should be encouraged to make provision for education about the Commonwealth, the line of approach being the responsibility of the individual countries." And, at the Sixth Commonwealth Education Conference, governments were urged to "encourage and support teaching about the Commonwealth in schools, in other educational institutions, and in the community as a whole."

136. At their meeting in Singapore in 1971, Commonwealth Heads of Government prepared a declaration of Commonwealth principles. A growing number of activities, based on these principles, is being carried out to the mutual benefit of member states and the international community as a whole. Programmes of education are needed to create an understanding and appreciation of the Commonwealth association and of the activities being undertaken within its framework. With this in mind, *it is recommended that at their next meeting, later this year, Commonwealth Heads of Government consider expressing encouragement and support for teaching about the Commonwealth in schools, other educational institutions, and the community as a whole.*

137. In order to give practical effect to this recommendation, Ministries of Education in countries where curricula are centrally determined are urged to ensure that appropriate consideration be given to the study of the Commonwealth and its member countries, and, where curricula are not centrally determined, to draw the attention of those responsible to the need for such studies.

138. The provision of educational materials is essential if teaching about the Commonwealth is to be successful. The materials most likely to portray a country's geography, history, and national goals accurately are those that have been prepared by nationals of that country and are used in the country's school system. Many of these materials are unknown elsewhere and it is recommended that arrangements are made to exchange specimen copies. It is also recommended that *the Commonwealth Secretariat should continue to publish information about the Commonwealth and make it more widely available for educational purposes.*

139. Some of the materials obtained in these ways may be of considerable assistance to curriculum developers, editors and writers in preparing materials of their own about Commonwealth countries or revising those that are already in use. However, the task of preparing new materials in some subjects (especially social studies) is extremely difficult, and the availability of source material may not in itself be sufficient to ensure the required degree of accuracy and emphasis. In some cases, therefore, once provisional approval has been given to the draft of a work about a member state, and publication is assured, it is recommended that the author, editor or educator most closely involved should be enabled to visit the country concerned, seek on-the-spot advice about the draft, and obtain whatever additional information is required. It is intended that this recommendation should refer both to book and non-book materials.

140. Much the same observations apply to educational broadcasting, and it is noted that the Information Division of the Commonwealth Secretariat has recently begun to prepare and distribute radio tapes on topics of Commonwealth interest. Individual member states can also play a valuable role in creating and supplying material. We therefore endorse the recommendation of the Commonwealth Educational Broadcasting Conference held at Sydney in 1975 requesting governments, education authorities, and educational broadcasting agencies to endeavour to produce programme material on their own country profile for use by other member states in promoting a greater appreciation of the Commonwealth.

141. Some Commonwealth developing countries (e.g. those involved in the African Social Studies Programme) have some experience in running workshops for the production of educational materials for schools. *It is recommended that the Commonwealth Secretariat should consider providing a consultant and possibly some other resources for appropriate workshops, such as those held by the African Social Studies Programme, in order to prepare educational materials to be used in teaching about the Commonwealth.*

142. Examinations exert a considerable influence on what is taught in school. Where new syllabuses are being prepared or old ones are being revised for national, regional, or

even, in cases, international examinations, the opportunity exists for including or modifying topics dealing with the Commonwealth in history, geography, social studies, civics, and other appropriate subjects. Education authorities, teachers' associations and schools may wish to consider what influence they can exert and what support they can offer to examining bodies in these tasks.

143. The frequency and quality of the questions that appear on examination papers can have more bearing on what is taught in schools than the topics listed on the syllabus. It is therefore recommended that national and regional examining bodies be urged to ensure that meaningful questions about the Commonwealth are included in appropriate examinations. It is also recommended that *the Commonwealth Secretariat should give some support to the preparation of a report on the questions set on Commonwealth topics by some of the examining boards in Britain, and that the report is circulated so that it can serve as a basis for similar studies.*

144. Learning about the Commonwealth cannot become a normal part of school education unless teachers are interested in the Commonwealth and knowledgeable about it. The task of including Commonwealth studies in teacher education programmes is one that each country must undertake on its own. However, member states are urged to take advantage of the presence of members of staff of the Commonwealth Secretariat in their countries when Commonwealth conferences, seminars and workshops are being held, by inviting these members of staff to participate as resource persons in carefully planned teachers' seminars arranged to take place a day or two before or after the main conference is held.

145. One certain way of building up a cadre of teachers who are interested in and knowledgeable about the Commonwealth would be to organize a Commonwealth-wide teacher exchange programme in which arrangements are made for those taking part not only to be attached to a school but to visit other institutions and serve as resource personnel. A well-developed bi-lateral scheme already exists to serve as model. It is operated by the League for the Exchange of Commonwealth Teachers — a voluntary body that has been in existence for many years. Currently it arranges 240 teacher

exchanges between Britain and seven other Commonwealth countries (Australia, Barbados, Canada, Jamaica, Kenya, Malaysia, and New Zealand). *It is recommended that the Commonwealth Secretariat should examine the feasibility of establishing a multi-lateral Commonwealth teacher exchange scheme.*

146. The value of existing visitation programmes for educators attending Commonwealth Conferences is also recognized, and the Commonwealth Secretariat is urged to continue them.

147. Ministries of Education are urged to make appropriate use of the services of resource persons (e.g. educators who have participated in visitation programmes, officials belonging to Commonwealth non-governmental organizations, nationals of other Commonwealth countries, and teachers who have worked in other Commonwealth countries) in their education programmes.

148. Novels and other literary works written by Commonwealth authors can provide readers with a unique and entertaining insight into the character and way of life of Commonwealth peoples. Special efforts should therefore be made to enable these works to reach the general public and special groups of readers such as teachers in training and young people.

149. Book exhibitions have been found to be a valuable way of bringing Commonwealth works to the attention of potential readers. Some have been general in nature; others have concentrated on particular countries, regions, or age-groups. For example, the 1976 Commonwealth Book Fair was devoted to "Stories for Children". *It is recommended that the Commonwealth Secretariat should spread information about Commonwealth literature throughout the Commonwealth.*

150. The newly designated Commonwealth Day, to be celebrated on the second Monday in March from 1977 onwards, will provide schools with a special opportunity for focusing attention on these and other formal and informal activities. In the period leading up to Commonwealth Day, activities could lay emphasis on the Commonwealth association and the brotherhood of man through art, music, drama, writing and poetry. On the day itself, schools could hold a special ceremony and organize an exhibition to feature pupils' work on some aspect of

Commonwealth studies. Ministers of Education may wish to send a special message to schools to mark the event.

151. It is recommended that Ministries of Education should give every encouragement to schools to make imaginative use of Commonwealth Day and the period leading up to it. *It is further recommended that the Commonwealth Secretariat, in association with the Commonwealth Institute, and other organizations, should collect and disseminate information on educational activities about the Commonwealth that are suitable for use by schools.* It is hoped that the Commonwealth Foundation will also be able to provide support for projects undertaken in connection with education about the Commonwealth.

152. It is noted that the Conference on the Commonwealth and Non-Governmental Organizations (the "Dalhousie Conference") held in October 1976 drew attention to the fact that "the immense task of creating a wide popular awareness of the value of Commonwealth activity is in great need of strengthening", and recommended that member governments be invited to establish resource and information centres in however modest a form at first.

153. Ministries of Education can themselves make a valuable contribution, either by strengthening offices where they exist for education about the Commonwealth or by designating an officer who, as part of his duties, would be responsible for the matter. Besides possibly participating in relevant areas of curriculum renewal and organizing seminars for teachers, the officer would serve as the chief point of contact with the Education Division of the Commonwealth Secretariat and assist in making arrangements for the receipt and despatch of Commonwealth information intended for educational use. It is therefore strongly recommended that Ministries of Education specifically assign the responsibility for education about the Commonwealth and, where appropriate and possible, for ensuring that channels of communication are opened for the exchange of information about the Commonwealth for educational purposes. Ministries of Education are requested to inform the Commonwealth Secretariat of whatever arrangement they make so that this information can be passed on to other countries.

Other Activities and Programmes

Information

154. One function of the Commonwealth Secretariat is to serve as a clearing-house of information for member states. As far as Education is concerned, the value of this service has been stressed at previous Commonwealth Education Conferences, and it is repeated here.

155. One way in which the Education Division collects information is by means of the country papers submitted for Commonwealth meetings. It is noted with satisfaction that 29 such papers have been supplied to this Conference — a greater number than ever before. It is also noted that the Division receives a number of reports from people who are on study visits organized by the Secretariat.

156. In addition to preparing special papers for such occasions, Ministries of Education are urged to ensure that a copy of each important publication they produce is sent to the Education Division where it will be retained as a reference document in the Division's recently re-organized library.

157. Information is also collected by members of the Division's staff when they are visiting Commonwealth countries. However, it is noted that such visits are virtually confined to occasions on which staff members are attending conferences, seminars and workshops. *It is recommended that officers with special responsibilities for particular regions should be enabled to pay more frequent visits to those regions to obtain first-hand information on developments in education.*

158. It is noted with satisfaction that some countries have, within their Ministries of Education, officers who, as part of their duties, are responsible for Commonwealth Secretariat affairs. Other Ministries of Education are urged to consider the possibility of doing likewise in order to improve the two-way flow of information.

Liaison with Other Organizations and Institutions

159. It is noted that the Education Division has maintained liaison with a large number of

organizations — international, regional, and national, working in the fields of education and development. *These contacts should be maintained and strengthened so that the Secretariat can avoid duplicating work being undertaken elsewhere.*

Research and Publications

160. It is noted that the Secretariat has utilized a modest budgetary provision to commission research on topics where a need has been expressly communicated by member countries or identified by members of staff in the course of their liaison visits. *It is recommended that this form of activity should be maintained. It is further recommended that the Division should continue to produce publications on important aspects of education, and that it should raise the print run of these publications and distribute them more widely.*

Commonwealth Fund for Technical Co-operation

161. It is noted with appreciation that financial support from the Commonwealth Fund for Technical Co-operation has made possible a number of valuable activities concerned with educational development. These have included:

- (a) The provision of advisory and operational experts to developing countries.
- (b) The provision of awards for study and training programmes undertaken in developing countries.
- (c) The funding of the Academic Exchanges Programme.
- (d) Support for training courses, workshops and seminars arranged by the Education Division of the Secretariat, and other bodies.
- (e) Support for the preparation and publication of directories.

162. It is agreed that the support for educational projects that is provided by the Commonwealth Fund for Technical Co-operation, in original and cost-effective ways, is

an important addition to the assistance available to governments from bilateral sources and from other multi-lateral organizations.

163. It is noted that the Fund's resources are composed of voluntary contributions by Commonwealth Governments, and that the degree of support for educational activities is, therefore, dependent on the resources that

Governments make available to the Fund. *In order to enable the C.F.T.C. to increase its support for education and training activities of benefit to developing countries, including the implementation of many of the recommendations made by this Conference, it is recommended that governments should consider the possibility of increasing the resources of the Fund.*