

SPEECH BY DR. S.J. COOKEY

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It gives me much pleasure to be here once again in this lovely country of the Bahamas. I believe I am here now because, as the saying in the Bahamas goes, I "took away some sand in my shoes" when I visited this country in 1974. On this memorable occasion my primary task is to thank the Honourable Minister and the Government and people of the Bahamas for their kindness and hospitality. However, before I do that I think it would be appropriate to say a few words about the Commonwealth, the Commonwealth Secretariat, and this Seminar/Workshop on Low-Cost Science Teaching Equipment.

My first contact with the Bahamas was in Nairobi, Kenya, in 1973. At the time, both the Honourable Coakley and I were in Kenya attending a Commonwealth Secretariat Conference on "Teacher Education in a Changing Society". We were both accommodated in the Panafric Hotel. A day or two after we had been in that hotel, we began to run into some difficulties. I discovered that from time to time some Coakley notes got into the Cookey pigeon-hole, and vice versa. In short, the receptionists and stewards at the hotel remarked that they could hardly tell the difference between "Coakley" and "Cookey". I dare say I have enjoyed the same experience twice since I arrived here two days ago. On arrival at Nassau airport the first remarks I heard was "Gosh, he looks like Mr. Coakley". This morning I heard someone say that when she saw me coming to the reception desk, she ran out of the room thinking that the Minister had arrived at the hotel. Well, something ought to be done; either Coakley goes back to whence he came to the Bahamas, or Cookey comes to live in the Bahamas.

I should like to say a few words about the Commonwealth itself. I sometimes find it difficult to talk about the Commonwealth without causing confusion among my audience, when I am in Australia or in the Bahamas. This is because both countries refer to themselves as a Commonwealth. On this occasion, the Commonwealth I would like to talk about is the one which the Chairman, Mr. Bethel, has defined so well. This is the Commonwealth of nations, a voluntary association of independent sovereign states with their dependencies and associated states and protectorates. This is a Commonwealth which is currently made up of 36 sovereign countries, Seychelles being the latest member. Its population of some 90 million is scattered over a total land area of 10 million square miles.

The distinguishing feature of the Commonwealth is the harmony with which the members work. During frequent consultations among members, decisions are reached by consensus rather than by voting. Member governments express their views frankly, sometimes with some heat, but in the end consensus is reached, decision taken and ways of promoting Commonwealth co-operation are sought. This indeed is a Commonwealth which everybody here, I am sure, would like to see maintained and encouraged.

The Commonwealth Secretariat was established by Commonwealth Heads of Government in 1965. Its first Secretary-General was a Canadian, Mr. Arnold Smith, who held the post until July 1975 when he was succeeded by

a Caribbean, Mr. Shridath Ramphal. The main function of the Secretariat is to promote Commonwealth co-operation. Its common policy is carried out through the activities of a number of Divisions: for example, Education, International Affairs, Health, Administration, Legal Affairs, and Food Production and Rural Development.

In 1971 the role of the Secretariat was given a new dimension with the setting up, by the Commonwealth Heads of Government, of the Commonwealth Fund for Technical Co-operation. This is a Fund to which members contribute voluntarily. It is in fact money from the Fund which has made it possible for us to hold this Seminar. Prior to the establishment of this Fund it was not possible, because of the lack of funds, to implement many of the decisions that had emerged from the various Commonwealth meetings that had taken place. This important Fund, known as CFTC, for short, is functioning very well because of the generosity of the member countries who contribute so liberally to it.

Next, let me say a few words about the Education Division of the Commonwealth Secretariat. Years ago the main activity of this Division was to organize meetings of Commonwealth Ministers of Education. The first of such conferences took place in Oxford in 1959. The latest meeting, the Sixth, was held in Kingston, Jamaica in 1974. We have just learnt that the Government of Ghana has accepted our invitation to host the Seventh meeting in Accra in March 1977. In addition to the Conference of Ministers of Education, we also organize meetings referred to as "Specialist Conferences". These Specialist Conferences, which are held in between conferences of Ministers, bring specialists together to discuss a major theme in education. I have already referred to the 1973 Specialist Conference on "Teacher Education in a Changing Society". The latest Specialist Conference took place in New Zealand in 1975. The theme for that conference was "Materials for Learning and Teaching", a subject which is not much different from the theme of our present seminar.

Our new emphasis now is on seminars and training workshops. This is because we believe that the ultimate purpose in discussing a subject is to arrive at practical ways by which we could solve problems. We believe that one reason why many recommendations resulting from Commonwealth meetings are not implemented at the national level is that there is not a sufficient number of trained personnel in those fields. I am happy to say that we have embarked on a programme of regional training courses to help meet this need. The first of a number of such courses will begin in Nairobi in Kenya in January 1977. It will be a three-month training exercise in educational administration and supervision. Participants at this course will include principals, headmasters, inspectors and supervisors of schools. The Nairobi course will, sometime in the latter part of 1977, be followed by a Caribbean course on certain aspects of book production to be held in Guyana. We shall continue to organize these regional courses if demands for them continue.

Our objectives for the Seminar/Workshop that is about to begin reflect the present orientation of the educational programmes of the Commonwealth Secretariat. Among these objectives are:

- to provide workshop experience in designing, developing and evaluating locally-constructed low-cost science teaching equipment;
- to consider the implications for teacher education if teachers are to participate meaningfully and effectively in innovative strategies of teaching using low-cost science teaching equipment;
- to determine ways of improving Commonwealth co-operation in the interchange of ideas

and experience in the development and production of school science equipment.

That this is a very important meeting cannot be overemphasized. The Honourable Minister of Education made this clear in his speech when he referred to the increasing importance of science to national development and told us what his country is doing in the field of science education. Many countries are unable to offer science education at the high school level. It is not surprising, therefore, that at the primary school level, science teaching is at present seen by some people as a luxury. It is true that one reason for this state of affairs is the shortage of adequately trained teachers. But even if the teachers were in good supply, there is an acute shortage in many countries of the science teaching equipment necessary to make science teaching effective through student participation in practical, problem-solving activities. Many school administrators are scared by the high cost of the traditional, usually imported, school science equipment and, faced with the financial constraints imposed on the school system, often prefer not to introduce science as a subject. Where science is taught it often takes the form of students' memorizing scientific facts.

The purpose of this seminar is to show that we need not have a great deal of money before we begin to teach science at the primary and secondary school levels. Most of the essential items of equipment required for science teaching can be produced locally, often at a fraction of the cost of importing them from other countries. Science can be taught effectively using cheap locally-produced equipment. This is not merely a belief. It is a fact which has been demonstrated by India, Sri Lanka, Kenya and other countries which have had the courage to start local production of school science equipment. This meeting affords us the opportunity to see how Caribbean countries can go into local production in order to help spread the knowledge of science to all their school children.

This is the age of science and technology. We often complain that we have to rely upon foreign expertise to operate our industries. There is shortage of local personnel to run our industries because we do not have an infrastructure for training our own scientists, technicians and technologists. The few engineers that developing countries have cannot work effectively without the support of technicians. It has been found that an engineer is most productive when he is assisted in his work by five to eight technicians. The number of people available to train as technicians and technologists depends on the number of school children who have basic knowledge of science. No country can therefore afford, in this present age, to continue to live comfortably if it neglects to inculcate in its children what the Honourable Minister referred to as "scientific attitude".

Now, Mr. Chairman, on behalf of the Commonwealth Secretary-General and on my own behalf I should like to thank all those who have helped to bring about this meeting. I should like to begin with the Government and the people of this beautiful country. I was thrilled by the enthusiasm with which our invitation to host this meeting was accepted, at a very short notice, by the Government of the Bahamas. The arrangements for this meeting could not have progressed so smoothly but for the active co-operation of the Honourable Minister of Education and Culture, the Honourable Mr. Coakley, the Permanent Secretary, Mr. Baltron Bethel, the former Director of Education, Mr. Gurth Archer, and the staff of the Ministry. The preparation for this meeting has been thorough and the reception given to us participants has been wonderful. Thank you all for this excellent support.

Finally, I am happy to welcome all participants - delegates from Commonwealth Caribbean countries, consultants, resource personnel, and observers - to this important seminar/workshop. I hope you have had a pleasant journey and that you will find your stay here enjoyable. I have no doubt that you have come here determined to make a contribution to the success of this meeting. To delegates, in particular, I should say that it is my hope that your active participation at this meeting will help stimulate the production of science teaching equipment in your countries, and thereby help spread the knowledge of science to all children in the Caribbean.