

SEMINAR/WORKSHOP RECOMMENDATIONS

STRATEGIES FOR PRODUCTION

Recommendations to Governments

Every Government in Commonwealth Africa should :

1. Identify and clearly spell out its objectives for science teaching within the context of its overall plans for national development.
2. Devise a curriculum that reflects its needs, and choose appropriate low-cost science teaching equipment and support materials which have been developed hand in hand with the curriculum in order to implement its objectives for science education.
3. Endeavour to set up a science equipment production unit wherever one does not exist, either as a self-contained national unit or as a component of a larger sub-regional or regional complex. One of the aims of such a unit should be to produce a set of basic science kits suitable for all schools and colleges in the country.
4. Consider an institutional framework for science equipment production units which ensures communication and collaboration across Government Ministries/Departments as well as across educational institutions and agencies including curriculum development units and teacher training institutions.
5. Pursue actively the identification and local processing of available natural products for use as chemicals.
6. Ensure through appropriate legislation that where importation is necessary, material required for the local production of science teaching equipment can be imported at the lowest possible cost and with minimum delay.

Recommendation to the Commonwealth Secretariat

7. The Commonwealth Secretariat is requested to hold in the near future a review seminar/workshop and to continue further follow-up action, including monitoring action through existing regional centres or programmes, which will enable member states to assess the progress made by each country in developing and mass producing school science teaching equipment.

Recommendations to Governments and International Bodies

8. Governments and International Bodies are requested to encourage :
 - (a) The formation of Science Teachers' Associations in countries where these do not exist and to support the national and international roles of such associations where they exist, if necessary with the assistance of international agencies with special interest in science education in Africa.

(b) The formation by Science Teachers' Associations of effective science clubs in all schools and colleges.

9. Regional co-operation in its many forms should be given further support by Governments and international organizations as a vital means of exchange of information and personnel especially where bilateral contact is difficult or impossible.

10. African Governments should actively consider, as a long-term measure, the establishment of a regional centre to monitor development in the field of school science equipment in the African region.

STRATEGIES FOR USE

Recommendations to Governments

Every Government in Commonwealth Africa should :

1. Establish and actively pursue a science policy designed to ensure that science is taught practically and effectively in schools, and that such science is relevant to the development of its pupils and its society in the context of the modern world.

2. Provide laboratory assistants with sufficient professional training and career prospects to increase their efficiency, retain their services, and increase their productivity.

3. Provide adequate financial and career incentives to science teachers in order to increase their efficiency and productivity and retain their services.

4. Lay down careful specifications of pieces of equipment suitable for use according to local climatic and other conditions, and encourage standardization in order to reduce production and maintenance costs by the use of a set of basic equipment by all schools and teacher training institutions.

5. Encourage creative and innovative teaching by making special financial provision or grants to those schools which show originality in the development of science teaching equipment.

6. Assist institutions of teacher education in devising programmes of training and retraining which will produce teachers who are properly oriented for creativity and innovation.

Recommendation to Teachers and Examining Bodies

7. Teachers and examination boards should lay more emphasis on continuous assessment of both practical work and projects carried out during the course in arriving at the final evaluation of pupils' work.

8. It is strongly recommended that each country's science curriculum should contain a set of basic science experiments to be carried out by all schools, and that appropriate low-cost equipment, pupils' texts and teachers' guides should be provided for these experiments. Teachers and local authorities should then be responsible for supplementing this list with other experiments and materials reflecting local environmental needs.