

## ORGANIZATION OF SEMINAR/WORKSHOP

### AGENDA

#### Theme

The theme of the seminar/workshop was "The Production, Use and Management of Low-Cost Science Equipment".

#### Objectives

- (a) To consider methods by which school science equipment is most effectively developed through greater involvement with curriculum innovators and school teachers, in order to fulfil curriculum objectives;
- (b) to examine the role of teachers, instructors, technicians and the community in the development and production of low-cost science equipment;
- (c) 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;
- (d) to provide workshop experience in designing, developing and evaluating of locally constructed low-cost science teaching equipment;
- (e) to determine ways of improving Commonwealth co-operation in the interchange of ideas and experience in the development and production of school science equipment.

#### Agenda Item I: The Potential for Local Manufacture of School Science Equipment, and Problems of Equipping School Laboratories

- (a) Present source of equipment and evaluation;
- (b) Difficulties and problems with equipping schools with suitable equipment;
- (c) Existing local resources. Types of science equipment that can be produced locally and cheaply;
- (d) Contribution of teachers, instructors, technicians and the community in the production, distribution, routine maintenance and evaluation of school science equipment;
- (e) Setting up of experimental units for the production of science equipment at various levels (in schools, technical colleges, in villages or cities in collaboration with local artisans, semi-industrial or industrial scale).

Agenda Item II: The Design, Development and Production of Low-Cost Science Equipment

- (a) Ideas for design or equipment; the role of curriculum development bodies, research units, science teachers' associations etc. at sub-national and national levels. Devising strategies to improve interaction;
- (b) Design, production and evaluation centres: their function and basic equipment; standards and methods of testing and reporting; recognition of needs of handicapped learners.

Agenda Item III: The Organization and Management of School Science Equipment

- (a) The development and management of equipment centres (staffing, accessibility to users, storage, distribution);
- (b) Supply, maintenance and support services (equipment, repair and replacement);
- (c) Designs for estimating cost-effectiveness.

Agenda Item IV: The Use of Low-Cost Science Equipment in Schools

- (a) Individual student experimentation;
- (b) Teacher demonstration exercises;
- (c) Storage;
- (d) Maintenance and repairs;
- (e) Administrative programmes to ensure that teachers actually make use of equipment and use the equipment effectively;
- (f) Evaluation of equipment by teachers.

Agenda Item V: Programme of Training and Supervision for the Efficient Use of Equipment; and the Dissemination of Information Relating to their Use

- (a) National Training Centres;
- (b) In-service training at local level (for teachers and technicians);
- (c) Networks for dissemination of information on successful utilization of local materials.

Agenda Item VI: Practical Laboratory Sessions

Agenda Item VII: Commonwealth Co-operation in the Manufacture, Supply and Use of Low-Cost Science Equipment

- (a) Exchange of information;
- (b) Regional agencies for training: visits and attachments.