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The Conference of Ministers
Responsible for Human Resources Planning,
Development and Utilization

Addis Ababa, 24 and 25 February 1983

PROGRESS REPORT ON EDUCATION FOR DEVELOPMENT

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I. Introduction

1. The First Conference of Ministers Responsible for Human Resources Planning, Development and Utilization endorsed and accepted seven project proposals as a basis for facilitating the development of internal capacity and capability in human resources. One of the project proposals was on the "Reorientation of Education for the development of the African Region".

2. This project proposal was taken by the Conference as a basis for further consultations at national level for the review and adaptation to national needs and the role of education in responding to the socio-economic challenges of member States. In adapting this project proposals to national needs, member States would need among other things to:

(a) appraise, assess and evaluate the effectiveness and adequacy of educational systems in African states with special reference to:

- (i) curricula, methods, techniques and practices, textbooks and instructional materials as well as the process of examinations, certifications and accreditation;
- (ii) the administrative machinery for effective educational administration, formulation and execution of educational policies;
- (iii) teacher education methods and programmes of training, related curricula, content and practice;
- (iv) general and technical/vocational education science and arts and the relationship and linkage between theory and practice as well as institutional and instructional activities with working patterns in the world of work;
- (v) optimum use of instructional facilities such as classrooms, dormitories etc. use of staff and other resources;
- (vi) effectiveness of institutions in developing appropriate technology, curricula and quality of instructions and educational facilities that are responsive to the needs of their surrounding centres of socio-economic activities.

(b) determine the causes of and strategies for dealing with wastage, drop outs and staff turnover.

(c) disseminate information within the region on new approaches to educational development and innovation in Africa.

(d) review and appraise non-formal education systems, programmes and administrative structures so as to:

- (i) identify the various appropriate technology, know-how origination centres and extension officials and the intended users among the rural/semi-urban communities;
- (ii) develop and establish effective non-formal education delivery system with appropriate network linkage between users and centres of knowledge and information;
- (iii) organize the various occupational activity groups and determine their needs and requirements for effective acquisition of the information, know-how for use in generating income and improving productivity.

II. Action taken

3. A Conference of Vice-Chancellors, Presidents and Rectors of Institutions of Higher Learning in Africa was held in Addis Ababa in January 1982 as a major follow-up activity in the implementation of recommendations and conclusions, relating to the education sector of The Conference of Ministers Responsible for Human Resources Planning, Development and Utilization.

4. The main theme of the Vice-Chancellors Conference was: "Orientation of higher education institutions in the development of human resources to meet the changing socio-economic needs of African States". A key reference point in this regard was the Lagos Plan of Action which had emerged from a realistic appraisal by Heads of African States of the underdevelopment and economic situation of the African continent since independence.

5. The primary objectives of the Conference were:

(a) Review of the role of institutions of higher learning in Africa in the implementation of the Lagos Plan of Action and subsequent development of strategies for:

- (i) adaptation of the curricula to the requirements of national development;
- (ii) harmonization of the course offerings of higher institutions with the socio-economic development needs of African States;
- (iii) contributions by institutions of higher learning to the economic development of African States by producing the quality and quantity of trained manpower needed by nations in their drive for economic self-sufficiency;

- (iv) contribution by institutions of higher learning in the production of goods and services such as spare parts, instructional materials, laboratory equipment, textbooks, etc. needed by the nation, and providing consultancy and advisory services;
- (v) establishment of suitable links between education, training and employment activities and very close liaison with industry;
- (vi) devising effective methods for evaluating research results and disseminating information to those in authority and to the private sector;
- (vii) training educators with a view to encouraging educational innovation and educators' participation in preparing and using educational reform and innovations, and training research workers in educational problems solving.

(b) Examination of strategies for maximizing the use of staff, instructional and residential facilities and capabilities of African institutions of higher learning.

(c) Assistance in defining priorities for regional and international co-operation in educational research, staff development, production of instructional materials, promotion of publications for use in lower and higher-level institutions, exchange of information and the development of science and technology.

(d) Formulation of a strategy for the development of high-level manpower for the exploration, exploitation and processing of Africa's untapped mineral resources, for the transfer, adaptation and indigenization of technology, and for community work and rural development.

6. A secondary objective was to share ideas on how to raise the intellectual level of the African region for the benefit of African societies and how best higher institutions might help to develop science and technology and be involved in development work at the national and regional levels.

7. The Conference's recommendations and conclusions reiterated the ultimate goal of the Lagos Plan of Action which is to set the economies of Africa on a firm and self-reliant and integrated foundation with self-sufficiency in food production and supply and with a level of industrialisation which would force Africa from under-development and economic dependence. This goal, it was pointed out, challenged third level institutions to consider what role they must play in:

(a) the development of human resources to meet the socio-economic development needs of African States;

(b) generating the essential technological and scientific knowledge and capabilities which would promote rapid development and economic independence; and

(c) co-operating with government and other development agencies in the planning and execution of socio-economic development programmes.

8. In its recommendations, therefore, the Conference set the following priorities for immediate action which reflected broadly the output of the Conference, viz:

- (i) production of textbooks and instructional materials;
- (ii) production of educational equipment and tools;
- (iii) maximizing the use of educational resources;
- (iv) curriculum content and orientation;
- (v) technical publications and dissemination of information;
- (vi) research and development;
- (vii) training opportunities for university teaching staff;
- (viii) consultancy and advisory services.

During 1982, action and activities had been carried out in the following areas:

(i) Production of Textbooks and Instructional Materials

9. The Vice-chancellors conference had given top priority to the production of textbooks in development economics and in biology. Accordingly, ECA and the Association of African Universities (AAU), after preliminary discussions and consultations, are organizing a five day meeting in 1983 for a selected team of fifteen professors and scholars in development economics. The terms of reference for the team were:

- (a) to review and appraise curricula in economics for the different levels of education and training.
- (b) to review the methodology of teaching economics.
- (c) to produce outline proposals for the content of economics textbooks for comments by universities.
- (d) to constitute committees to write economics textbooks. Members of this team would chair or service the committees thus constituted.

10. In the case of biology textbooks, UNESCO had made available US\$ 20,000.- for the programme, but a meeting scheduled for November 1982 and which was supposed to be attended by 22 university professors/scholars and eight secondary school teachers had to be postponed to 1983 because the sum of \$ 20,000.- was not enough. Accordingly ECA and AAU have had consultations regarding the financing of textbook production in economics and biology. In 1982 and continuing into 1983, efforts would be made to obtain funds from international organizations and agencies and other international funding institutions for the production of textbooks and instructional materials.

(ii) Production of Educational Equipment and Tools

11. Preliminary survey carried by the Association of African Universities in 1982 have shown that many African countries have made great efforts in designing and producing relevant educational equipment and tools for use in national institutions. In an effort to implement the recommendation on this matter, the AAU in collaboration with the ECA is preparing to carry out a comprehensive survey of existing educational equipment and tools in 1983 to cover the various subregions. The outcome of the survey would indicate the areas of concentration for equipment and tools for instruction and other educational use.

(iii) Maximizing Resources Utilization in African Institutions of Higher Learning

12. In 1982, ECA commissioned four country studies which were undertaken by consultants in Botswana, Zambia, Kenya and Ethiopia. The draft reports by consultants were ready at the end of 1982 and final reports would be distributed to all member States for their consumption and adaptation to national needs during the first half of 1983.

13. Broadly the four reports have:

- (a) reviewed existing resources utilization and higher education development plans of the respective countries the organization and operation of higher institutions so as to explore the possibility of increasing the intake within the existing facilities in relation to:
 - (i) the manpower supply and demand in selected priority sectors of the economy and
 - (ii) the fields of study and faculties amendable for the learn/work exposure.
- (b) made an assessment of the optimum utilization of resources in institutions of higher learning to cater for increased intake, vocation-oriented and exposure as well as research and work-study programmes in the universities;
- (c) assessed the existing and planned development, utilization and linkage of resources (staff, instructional and residential facilities and finance) with the centres socio-economic activities within the immediate environs of the institutions and highlighted on:
 - (i) strategies for maximizing the use of instructional and residential facilities in the course of the year;
 - (ii) the number of days when staff is not teaching and not actually engaged in research work during the year;

- (iii) the magnitude of disuse of resources (human and material) and related it to the need for increased intake for higher education, and the maximum number of students that can be fully engaged by a faculty/department at any one single intake;
 - (iv) number of students with minimum entry requirements but denied access to institutions of higher learning due to lack of instructional and residential facilities and suggest ways of programming them in a programme of residential cum nonresidential cycle of the year (work/vocation exposure) to maximize the use of facilities and link teaching/learning to related work exposure;
 - (v) evaluation of courses offered, their relevance to socio-economic needs, their organization and inputs in terms of men, material equipment and time;
 - (vi) the capacity and capability of higher institutions to meet manpower demand and supply in relation to planned socio-economic development and related the demands to faculty/department capability/capacity and to involvement of production and service rendering units of economic activity;
 - (vii) evaluation of curriculum so that education receive is work/job-oriented and linked to the world of work to allow for practical work exposure and guidance and recommended an operational strategy of collaborative consultation between the institutional administration, academic staff and centres of economic and social activities;
 - (viii) institutional consultations to establish the modality for interchange of student resident and non-resident work exposure for increased higher education intake through the use of graduate assistants and tutorial fellows combined with distance teaching techniques.
- (d) the four reports made recommendations on:
- (i) resources required for increased intake to institutions of higher learning so that a good portion of the population has access to higher education;
 - (ii) identify sectors of the economy with critical manpower requirements so as to re-orient education and work exposure programmes to these critical areas;
 - (iii) operational strategies and modalities in respect of:
 - (a) higher educational orientation to economic needs including course offerings and instructional strategies;

- (b) research oriented to socio-economic needs and production of goods and services;
- (c) maximized use of staff, instructional and residential facilities;
- (d) work-oriented education for learning while working or vice versa;
- (e) effective utilization of distance teaching techniques for promoting work while you learn and learning while working.

(e) the reports also suggested strategies for optimal utilization of classrooms/lecture theaters, residential facilities, labs, library and staff resources and the development of African education and re-organization of national service programmes bearing in mind the development process and Africa's problems and perspectives in the framework of the third United Nations Development Decade and Africa's development strategy as put forward in the Lagos Plan of Action to take account of:

- (a) the need for regional and subregional collective self-reliance;
- (b) self-sufficiency and self-reliance in human resources development;
- (c) accelerating industrialization process in Africa, and the exploration and exploitation of mineral resources;
- (d) Higher education output capable of greater participation in the development process and with capabilities to establish sovereignty over natural resources in the region.

14. More studies on maximizing resource utilization in education are planned for 1983 for other African countries.

(iv) Curriculum Content and Orientation of Education

15. Efforts to reorient education to the socio-economic developmental needs of African States have had a modest beginning. ECA and OAU jointly prepared a technical paper/report on "African Development Strategies and their implications for Education". The paper was presented to the "Conference of Ministers of Education and those responsible for Economic Planning in African member States" at UNESCO MINEDAF V held in Harare, Zimbabwe in June/July 1982. The paper assessed the major constraints, problems and prospects of human resources development in Africa and highlighted on African development strategies and their implications for the development of education.

16. In spite of heavy investments of resources in infrastructure, education, and rural development, the major constraints for economic development still persisted viz.:

- (i) the inadequate supply of skilled manpower;
- (ii) the low level of skilled and trained manpower;
- (iii) the extensive dependence on foreign agents of production and distribution coupled with the heavy dependence on advanced countries for human resource development;
- (iv) poor knowledge of natural resources endowments and hence the dependence on developed countries for the exploration, exploitation and utilization of natural resources;
- (v) the slow development of technology more so of indigenous technology;
- (vi) the quality of education and the divergence of education and training systems from the demands of the work-world and culture, and the unresponsiveness of education to the socio-economic needs of Africa;
- (vii) the inadequate development of institutions coupled with the lack of support for subregional and regional institutions, and
- (viii) the fast increasing population growth and the attendant problem of decreasing food production.

17. While some of these problems are educational, a solution would require national commitment and an overhaul of educational systems, a reorientation of curricula and new approaches to teaching and training. The ECA/OAU paper argued that if the objectives of the new African development strategies have to be achieved, it was absolutely necessary to reassess the planning, administration, organization and operation (including teaching) of educational systems in Africa.

18. What was important therefore was to realign educational strategies with Africa's development strategies. To do this, as it was pointed out at the MINEDAF V, called for the reorientation of education to the socio-economic needs of the African region by:

- (i) diversifying curricula to include productive activities such as construction, leather work, woodwork, metal work, pottery, basketry, weaving, arts and crafts, drama, dance, etc. agriculture as a major subject and other self- and income-generating activities;
- (ii) gearing research and experimentation to productive work and to being problem oriented. Research should be atuned to the production of goods and services, such as the production of spare parts, agricultural tools and implements, farm chemicals, and improved productivity;

- (iii) redressing the imbalance between general education and technical/vocational education since present education was heavily weighted in favour of general education. It was also important to enhance the link between technical institutions/universities with the industry sector to ensure the incorporation of practical aspects in the training programmes of personnel so that upon completion of training worker recruits have a sound base to start working;
- (iv) enhancing teaching of science, technical and technological subjects. A deliberate effort should be made to improve the supply of science and technical teachers/instructors through incentives in the training of science, maths, agricultural and technical teachers;
- (v) complementing formal education with non-formal education since current educational practices have revealed deficiencies and weaknesses in providing learning opportunities for all; the processes and techniques, which have been employed, have been inefficient and inappropriate in the development of knowledge and skills. Thus for developing an effective educational system, formal and non-formal education had to complement and supplement each other. Some of the efforts made by member States were reported as follows:

Efforts made by African States

(a) Basic Education

19. A number of countries reported at MINEDAF V that great strides had been made in enrolments at the first level of education and that education was being used to contribute to development, in particular by the practical application of learning methods drawn from the community environment, the introduction of productive work into educational process and the use of national languages in education.

(b) Organizational Policy

20. A number of countries also reported that they had adopted policies aimed at decentralizing the management of the educational system by setting up sub-regional and regional bodies and by giving local and village communities authority to manage schools and by entrusting them with certain responsibilities such as the construction of school building and management of schools.

(c) Science and Technology education

21. Several countries have become committed to the development of science and technology since no country can really develop without scientifically trained manpower which can adapt technology to traditional use and improve upon indigenous technology. Most African countries therefore have embarked upon scientific and

technical education, emphasizing at the primary level integrated science curricula linked with the environment, stressing on vocational programmes at the secondary level and concentrating on development-related scientific research and the training of scientists and higher technicians and engineers at institutions of higher learning. Facilities in many of the African countries have been provided for science teaching including laboratories, and science kits as well as developing appropriate curricula. A few of the countries had undertaken research into the development of low-cost science equipment.

(d) Teacher education

22. To overcome the constraint of lack of scientific and technological personnel, including science teachers, some countries had embarked on special programmes such as pre-university courses to increase the number of students admitted to science and technology courses at universities. Also pre-service and in-service training for teachers were being undertaken in a number of countries.

(e) Relevance of education to national needs

23. In implementing the recommendations of the Lagos conference in 1976, many countries had embarked on education for self-reliance through the diversification of curricula by including such subjects as environmental education, health, nutrition, agriculture, arts and crafts, technical subjects, science, etc.

(v) Technical Publications and Dissemination of Information

24. Technical and related papers of the Conference of Vice-Chancellors, Presidents and Rectors of Institutions of Higher Learning in Africa are being processed for publication early 1983 and for distribution to member States and all institutions of higher learning in Africa under the title of "Higher Education and African Development".

25. Another technical publication which will be published annually was started in 1982 under the title of "Trends and Issues in African Education". The publication covers a number of topics on education and training, employment implications for career guidance on the problems and employment for school leavers, the re-orientation of curricula, educational planning, and on education and politics in Africa.

(vi) Training Opportunities for Educators University Teaching Staff

26. The Conference of Vice-chancellors in 1982 regretted the lack of skilled manpower especially in the sciences, engineering and technology. A preliminary survey carried out by the Association of African Universities in 1982 covering over 100 African universities showed that there was need for a teaching staff of 40,000 within five years. In an effort to accommodate this demand, the

Association of African Universities has set up a fund for inter-university co-operation for the purpose of academic staff training. Member States may wish to take advantage of this for training their nationals for university teaching. In this case they need to contact the Secretary General of the Association.

27. Organization, planning and preparation for a number of workshops have been done for 1983. The workshops/seminars are for training educators and practitioners in the field of education, in educational planning, educational administration, curriculum development and evaluation and in teacher education.

(vii) Non-formal Education

28. The African Adult Education Association with which ECA was collaborating had organized a workshop for December 1982 in Abidjan, Ivory Coast but had to be postponed to March 1983 because not sufficient funds have been raised for participants to attend the workshop.

29. The theme of the workshop was "Integrated Community Education: Identification of Issues for Adult Educators within Integrated Rural Development."

30. Participants were to explore the concept of integration in rural development, the mechanisms employed in integrated rural development, the types of integration, and what form and degree integration should take. Participants would also focus attention on the Report of the Consultation Workshop on the same theme, held in Nairobi in March, 1982.

III. Action Required

31. Although a start has been made in the implementation of the recommendations and conclusions of the First Conference of Ministers Responsible for Human Resources Planning, Development and Utilization, member States need to:

- take advantage and make use of the ECA training workshops/seminars in education and planning, curriculum development and evaluation, educational administration and teacher education designed for practitioners in education at the various levels of the educational system.
- assign top priority to the production of textbooks, instructional materials, educational equipment and tools as a measure for saving on foreign exchange since textbooks and educational equipment are mostly imported and hence constitute a major drain on foreign exchange.

- seriously examine the findings and recommendations of the study on "maximizing the use of educational resources" of the four country reports and see how best they can be adapted to national use or commission similar studies in their respective countries.
- make use of the inter-university co-operation fund set up by the Association of African Universities for university staff training and development and should make some efforts to contribute to the fund.
- reorient their education systems to the socio-economic needs of the country concerned and programme income generating activities.
- develop and establish effective non-formal education delivery systems with appropriate network linkage between the origination centres, non-formal education centres/programmes and the rural users.