

AC137

61460

6.33

UNITED NATIONS ECONOMIC COMMISSION FOR AFRICA  
ECA/UNESCO Regional Symposium on the Utilization  
of Science and Technology for Development in  
Africa  
Addis Ababa, 5-16 October 1970

WORKING GROUP II

ECONOMIC INFRASTRUCTURE

8/

RAPPORTEUR: Mr. C. Gahamanyi

## Economic Infrastructure

Much of the discussion centred on the difficulties faced by African countries in the creation and development of infrastructure, particularly roads, railways and telecommunications and in the fields of air and water transport. The working group considered the views expressed in the relevant working papers and the question which had been prepared beforehand to guide the discussion. Among the problems mentioned were:

- i) the high cost of road construction,
- ii) the lack of know-how in the use of local materials for road construction,
- iii) the lack of proper planning and research and machinery in highway construction,
- iv) the inadequate correlation and dissemination of information on road design, planning and research,
- v) the difficulty of providing roads to scattered population in the rural areas,
- vi) the need for local expertise and road construction equipment and materials to minimise costs,
- vii) the lack of standardisation in road specifications and signs between neighbouring african States,
- viii) the problems arising out of the lack of harmonisation of road traffic standards and conventions with particular reference to the development of trunk roads between neighbouring countries,
- ix) the problems of interconnection of railway systems between african countries resulting from existing different technical specifications,
- x) difficulties facing the development of telecommunications between african countries,
- xi) implications of the introduction of new types of aircraft.

On the questions of planning and research in highway construction, it was pointed out that only one African country was known to have a road research institute. It was agreed that without appropriate planning and research in highway construction the African countries could not profitably make use of local materials in the road construction nor could they establish road networks suited to the local conditions.

It was agreed that there was an urgent need to have common road signs and conventions. Some members felt that it would even be desirable to have driving on the right side of the road throughout Africa. Presently 28 countries in Africa had adopted right-hand driving as against 13 countries driving on the left.

In relation to exchange of information on roads and highway construction it was agreed that Africa needed well prepared catalogues of road engineering soils to assist the national road research units in their research work. Speaking on the question of exchange of information members expressed the need to have institutionalised means of collection and dissemination of information on all aspects of road planning design, research in the African continent.

The use of local materials required initial testing at local laboratories and it was stressed that this could be one way of cutting down costs. It was also stressed that the continued importation of heavy equipment for road construction inevitably raised the road costs and Africa needed to look into possibilities of producing such equipment locally or at least manufacturing certain components locally. Such a venture would call for a co-operative effort among all or several of the African countries.

The development of rural areas was a matter of great priority in Africa and the construction of feeder road networks was one of the necessary steps towards this goal. In connection with this however, there was a problem caused by the scattered nature of some of the rural population. Some members suggested that it was desirable for African countries to devise means of concentrating this scattered population into large communities to make the development of rural networks of economic value. Examples were cited where certain African countries had made successful moves on this type of scheme.

On the question of interconnection of railway networks of different specifications, it was pointed out by the representative of ECA that studies were being carried out on this matter.

Regarding the general development of railways generally, it was considered that for long distance transport of heavy goods, e.g. mineral ore, the railway transportation was preferred to road transportation. But for short interconnections road transport was the cheaper alternative.

The ECA representative informed the Working Group that at a meeting held in 1969 the ECA recommended the establishment of an African Highway Association which it was hoped would help tackle some of the problems in connexion with highway development in Africa. An interim committee is already in existence to study ways and means of establishing this association.

On the basis of these discussions, the following recommendations were made:

Recommendation 1: African countries should take action to establish road research institutes capable of conducting research into all the aspects of highway design and construction in their respective countries. Such units should pay particular attention to reduction of costs through the use of local building materials for the construction of stable road surfaces, and conduct research into climatic and other factors affecting road life and durability.

Recommendation 2: Increasing attention should be given to proper planning and survey of highways and the planning teams should be multi-disciplinary and multi-purpose ones consisting of economists and technologists in order to ensure the best use of the heavy investment put into road construction.

Recommendation 3: It is important for the African countries to support measures aimed at the harmonization of road traffic standards and conventions and the development of trunk roads between neighbouring states.

Recommendation 4: The necessity to develop the rural areas through provision of feeder roads is very desirable throughout Africa. It was however necessary to consider the best ways and means to concentrate the rather scattered rural population into sizeable communities which could profitably be served with road connections.

Recommendation 5: Railways transport is still a suitable means of long distance transportation of bulky goods but for short interconnections road transport offers the best alternative. It is also necessary for the African States to find suitable solutions to the problems of interconnection of railway systems of different technical specifications between neighbouring countries.

Recommendation 6: The establishment of the Pan-African telecommunications network will involve the installation of modern and complex telecommunications equipment, which will need to be maintained to a very high standard. It is recommended that African countries give immediate attention to the training of the many additional technicians who will be needed for this purpose, taking into the account the fact that this training will take a minimum of three to four years.

Recommendation 7: It is recommended that African countries support international and other projects for the study of Pan-African telecommunication systems, including the utilization of satellites for regional communications and for educational and broadcasting purposes.

Recommendation 8: A study should be made in co-operation between the organizations concerned (ECA, AFCCAC and ICAO) as to the implications for the African countries of the introduction of the new aircraft types, and what actions - if any - ought to be taken in order to achieve the fullest advantage of these new aircraft types.