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THE CRISIS AND REHABILITATION AND RECONSTRUCTION OF  
INFRASTRUCTURAL FACILITIES

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The Crisis and Rehabilitation and Reconstruction  
of Infrastructural Facilities

A. Transport and Communications

1. The nature of the current African economic crisis and its various elements have been fully described in other papers. The analysis has among other things revealed a serious debt problem and the inability of most African countries to obtain funds for economic development activities. Drought has not only brought about a rapid advance of desertification and deforestation, but has also brought a serious food crisis. Large number of people have been displaced as a result of the drought and other unbearable socio-economic conditions in Africa. The result is that Africa as a whole does not possess the capability and capacity both for food production and transport services to cope with the current situation.

2. The severity of the situation is manifested in the fact that some 34 African countries (about 66 per cent of the OAU's membership) are affected by drought and in all, 36 countries are food deficient and largely survive on the basis of food-aid. The situation in Africa is so critical that it has become a major international concern and international response, through food aid and relief supplies (medicines, shelter, etc.) has been massive.

3. While the ultimate role of the transport and communications sectors in overcoming the crisis and averting future ones will be through medium and long-term activities aimed at establishing sound infrastructures and high level capabilities in construction and maintenance, the current situation clearly calls for emergency measures, given that large quantities of food aid, medicines and other supplies from abroad must quickly reach the victims in remote, widespread and usually inaccessible areas, and that large numbers of persons may have to be evacuated and moved from the severely drought affected areas for resettlement in more hospitable areas of the country.

4. The long-term approach from the transport and communications perspective in facilitating self-sufficiency is to assure the physical integration of the continent, enable easy mobility of people and goods and accessibility to remote areas, through the programme of the United Nations Transport and Communications Decade in Africa, which is fully described below. Yet it is evident that this programme is long-term oriented. Thus, the possible and rational response to the current crisis is by providing emergency transport and communications services, using the infrastructures, facilities and capabilities which can immediately be made available.

5. In this context the most rapid means of transport for providing assistance to relief centres, drought areas and refugee camps as well as evacuating victims is air transport, comprising the use of STOL <sup>1/</sup> aircraft (where unimproved air fields exist), helicopters and air dropping of food, medicines and other relief supplies. The resettled areas may also need emergency materials for shelter such as tents and certain building materials to be transported to wherever they are needed. Land transport in the form of trucks (where rugged roads and trails exist) and articulated vehicles (where the terrain permits) can extend services to dispersed villages and other victims who cannot get to relief centres. STOL aircraft, helicopters, trucks and articulated vehicles can similarly serve for the evacuation of victims. Suitable depots or sheds should be available at ports and other appropriate locations to handle the supplies and materials which have to be transported. Collaboration between authorities responsible for depots and those for transport should be well articulated.

6. In the case of communications, fairly efficient, light-weight two-way radio communications equipment such as SSB, HF and other mobile communications units can be used to co-ordinate relief and evacuation activities at remote areas where no telephone and telex services exist.

7. While the foregoing proposal constitute the ideal approach, its practicability and possibility from an internal African perspective must be examined. More specifically, do African countries have the necessary STOL aircrafts, helicopters, trucks and all-terrain articulated vehicles to deploy in such emergency services in the affected African countries? Evidence so far shows that where such emergency transport services have been successfully employed, the equipment has been wholly provided by the developed countries, some of whom have also provided the food aid and relief supplies. While it is true that most African countries are affected by the crisis (drought and etc.), it does not necessarily follow that all African countries do not possess any cargo planes, STOL aircrafts, helicopters, trucks and all-terrain articulated vehicles which could be deployed to participate in such emergency services. It is indeed obvious that no single African country possesses a sufficient number of the required transport and communications equipment to adequately respond to the current crisis or emergency transport needs, but something significant can be done on a collective basis.

8. Over the past twenty years after independence, all African countries have devoted a substantial share of public expenditures to the development of their national

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<sup>1/</sup> Short take-off and landing.

transport and communications infrastructure partly as a result of the primitive state and inadequacy of these facilities and infrastructure as inherited at independence. During most of this period, the national policies and orientation has been the construction and extension of basic transport and communications infrastructure and services to all or most parts of each nation in order to achieve national integration and promote economic development.

9. It is evident that in their drive to provide transport and communications services to major areas of the nation through the construction of basic infrastructure, the maintenance of old infrastructure and facilities was either neglected or there were not enough funds to execute new construction projects and maintenance simultaneously. Consequently, most transport and communications infrastructure and facilities have rapidly deteriorated over the years to the extent that very costly rehabilitation and reconstruction works must now be carried out on large sections of the networks.

10. This situation developed not only because of lack of local funds for maintenance but partly because international lenders and donors preferred and insisted on financing new construction projects under the philosophy that maintenance was purely a national activity not suitable for external financing or assistance. While this view has gradually changed in most recent years, this has been at a time of severe international economic recession, coupled with unprecedented economic, social and natural crisis in Africa. Thus, while the urgent need for rehabilitation and maintenance of the primary transport and communications infrastructure and facilities has been clearly recognized by both African countries and the major international financial lender and donor countries, the provision or allocation of funds for maintenance and rehabilitation has not substantially improved and the actual execution of such projects has hardly begun.

11. It is, therefore, in this context that the problem of rehabilitation and/or reconstruction of transport and communications infrastructural facilities in Africa has assumed the status of a "crisis". Just a few of the important reasons why the problem is a crisis are:

- (i) the estimated total cost of rehabilitating and reconstructing some 159 (133 transport and 26 communications) projects is US\$3,221.53 million in the second phase Decade programme;
- (ii) from available evidence, the cost of rehabilitation and/or reconstruction is equal to, if not more than the cost of new construction, a lesson that such heavy costs are avoidable through regular and adequate routine maintenance;

- (iii) deteriorated infrastructure and facilities increase systems operating costs, which have a direct adverse effect on overall economic performance; and
- (iv) foreign exchange is not adequate to import the equipment and material required for maintenance and rehabilitation, since most of these inputs are not locally manufactured.

12. Under the above circumstances, it is apparent that unless the existing infrastructure and facilities are urgently rehabilitated and reconstructed, the benefits from new constructions will be greatly diminished and African economies will not grow or develop.

13. It is in this light that the rehabilitation or reconstruction of transport and communications infrastructural facilities require top priority in order to preserve existing facilities, restore efficient systems operations and enable the realization of full benefits from new infrastructural investments.

14. The second phase programme of the United Nations Transport and Communications Decade in Africa not only recognized these facts, but lays the strongest emphasis on the rehabilitation and maintenance of existing transport and communications infrastructure and facilities. In fact, maintenance and rehabilitation is the top priority of the entire programme and summarized below is the section of the programme dealing with this aspect. 1/

#### UNTACDA Phase II Programme on Maintenance and Rehabilitation

15. It is becoming increasingly recognized by many African Governments that high priority should be given to the maintenance and rehabilitation of seriously deteriorating transport and communications infrastructure and facilities. The Global Strategy clearly stated that "As there is no economic substitute for timely basic maintenance ..... no effort should be spared by transport and communications authorities in African countries and international agencies involved in the development of these sectors to protect the existing networks from deterioration and destruction". 2/ The second phase programme, therefore, addresses this issue in a number of ways, including rehabilitation projects whose purpose is to make up for the absence of proper maintenance in the past.

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1/ Documents E/ECA/TCD/16, p. 43 to 47 and E/ECA/TCD/17, annex 1.

2/ Document E/CN.14/726, E/CN.14/TRANS/147, para. 178.

16. In addition, the international community is making efforts to encourage good maintenance planning and practices. For example, ECA in collaboration with the African Development Bank, the World Bank, the Governments of France, the Federal Republic of Germany and the United Kingdom are organizing a series of seminars designed for road maintenance specialists. ECA and the World Bank are also organizing seminars on road maintenance for officials at the decision-making levels in Ministries of Finance and Planning. UNCTAD has organized seminars and produced valuable studies on maintenance of port equipment. Similar maintenance improvement efforts are being made in the aviation, railways and water transport modes.

17. The current major problem of maintenance in much of Africa results from a combination of factors - physical, economic, institutional and attitudinal. Physically, the continent covers a quarters of the earth's land mass and its population of some 450 million is widely scattered, reflecting the rural agricultural base of the economy. Thus, transport links are often very long and equipment widely dispersed. This requires extensive maintenance operations that are difficult to organize and supervise, as well as being very costly per unit. The topographic and climatic conditions of many African countries, e.g. deserts, tropical forests, heavy rains and high humidity - challenge maintenance activities, even where funds are available. Equipment designed for less challenging environments often requires more and more frequent maintenance in Africa than elsewhere and the soil conditions do not enable maximum productivity from equipment.

18. Other aspects of Africa's transport and communications maintenance problem can be summarized as follows:

- (a) Inappropriate, or absence of rational policies for regular and periodic maintenance as well as for the rehabilitation or replacement of transport and communications assets;
- (b) Weak and out-dated organization structures which result in inefficient planning and execution of maintenance activities;
- (c) Shortage of both skilled and experienced manpower to effectively carry out maintenance and rehabilitation works and lack of proper and adequate training facilities;
- (d) Inadequate budgetary allocations for maintenance and rehabilitation works and costly, time-consuming procurement procedures;
- (e) Scarcity of spare parts as and when required, partly resulting from (d) above and scarcity of foreign exchange and lack of forward planning;

- (f) Insufficient standarization of equipment;
- (g) Over-aged and obsolete facilities and equipment that are difficult to maintain but needed because new alternative are not available; and
- (h) Personal and political attitudes which are not supportive of the need for sound maintenance practices.

19. Some solutions of the problems of maintenance require governmental actions on all of the above; financial, institutional and human aspects. While not all can be addressed simultaneously with the same emphasis, more determined collaborative efforts are required by African Governments and donors. "Aid suppliers", for example, "in addition to financing projects oriented to maintenance should include components contributing to the development of maintenance capacity, even in projects mainly concerned with new construction such as - construction of regional offices and workshops and provision of periodic maintenance, and training. Ministries and their consultants should pay special attention to designing projects so as to minimize total system costs (i.e. construction, maintenance and operations)". <sup>3/</sup> The same source encourages aid supplying countries to "take a liberal attitude towards financing recurrent costs, local or foreign, of routine maintenance". This is particularly important to ensure reliable supplies of spare parts and to encourage greater participation by local contractors or community groups, as well as better use of employment creating labour-based techniques.

#### Maintenance and rehabilitation projects

20. In the second phase programme, there are 133 transport maintenance and rehabilitation projects (23 per cent of the total number of transport projects) at an estimated cost of \$3,092 million (21 per cent of total estimated cost of all transport projects). These projects mainly concern roads, railway tracks, maritime and river/lake ports and some airports. Of the 133 projects, 83 are concerned with direct maintenance and rehabilitation of transport infrastructure, 32 involve purchase of new transport equipment and/or spare parts, 16 are study projects and two are technical assistance projects.

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<sup>3/</sup> Accelerated development in sub-Saharan Africa, World Bank, 1983, p. 106.

Maintenance and rehabilitation projects by category

Nature of project	Number of projects	Cost (in million \$)
Direct maintenance/rehabilitation	83	2,481.35
Purchase of new transport equipment and/or rehabilitation	32	569.88
Study	16	34.99
Technical assistance	2	6.09
Total	133	3,092.31

21. African Governments have earmarked \$640 million for these projects, with the external financing secured so far being \$124 million. In other words, out of the total estimated cost of \$3,092 million for these projects, some \$2,328 million or 75 per cent of the cost remains to be raised from local and external sources during the second phase. These important projects will help to prolong the life of existing assets, improve their productivity and avoid further increases in the already high costs of transport operations which would seriously retard development efforts.

Direct maintenance and rehabilitation projects

22. There are 83 direct maintenance and rehabilitation projects estimated at a cost of \$2,481 million. They consist mainly of maintenance, rehabilitation and reconstruction of roads and railway tracks, and include also projects on rehabilitation and expansion of airports and maritime ports, and supply of transport equipment. Examples of these projects are:

- ROP-22-003 - Maintenance and rehabilitation of 112 km of a section of the Lagos-Mombasa Trans-African Highway in Kenya;
- ROP-60-006 - Rehabilitation of the 781 km Addis Ababa-Djibouti railway line;
- HAP-14-001 - Maintenance and rehabilitation of the ports of Malabo and Bata in Equatorial Guinea;



- AIP-46-003 -- Rehabilitation and maintenance of Entebbe airport; and
- INP-48-001 -- Rehabilitation of the ONATRA fleet in Zaire, just to mention a few. <sup>4/</sup>

Purchase of new transport equipment and/or spare parts

23. Purchase of new equipment and spare parts is one of the important aspects of maintenance and rehabilitation activities which consist of replacement or repair of equipment. In order to cover this aspect 32 projects have been identified at an estimated cost of \$569 million, and include, inter alia:

- RAP-60-014 -- Replacement of 30 locomotive motors for TAZARA Railway;
- SHP-07-001 -- Purchase of ferry boats for inter-island connections in Cape Verde;
- HAP-60-005 -- Purchase of dredging pool equipment for the West and Central African subregion; and
- AIP-02-003 -- Purchase of spare parts, fire fighting and rescue equipment for Angola.

Study projects

24. Some of the maintenance and rehabilitation projects require studies before actual works can be carried out so as to assess the cost and the feasibility of the projects and prepare the programme of work to be executed. There are 16 study projects estimated at \$35 million in the programme; they include inter alia:

- ROP-60-003 -- Prefeasibility study on the protection of the coasts of Benin, Togo and Ghana against sea erosion;
- RAP-19-001 -- Study on rehabilitation, replacement of ballast and rails, miscellaneous equipment, etc. for Guinea;
- HAP-60-006 -- Study on the creation of a subregional dredging pool for Eastern/Southern African ports.

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<sup>4/</sup> For further details, see Annex 1 of UNTACDA, 1978-1988: Approved Programme of Action for Second Phase, 1984-1988, Vol. III (E/ECA/TCD/16).

Technical assistance projects

25. This group consists of two projects estimated at a cost of \$6 million; they are:

- ROP-07-003 - Organization of a road maintenance crew for Cape Verde;  
and
- ROP-14-001 - Establishment of a national roads and public works enterprise  
in Equatorial Guinea.

26. It should be emphasized that these are just a sampling of the many projects contained in the second phase programme which are exclusively devoted to the maintenance and rehabilitation of the transport sector.

Communications sector

27. In the telecommunications sub-sector, there are altogether 15 maintenance and rehabilitation projects estimated at \$100.2 million. Only one of the 15 projects is regional.

28. Funds for the single regional projects TEP-60-012: "Operations and maintenance: Studies and courses" estimated at \$0.58 million have been secured from UNDP. Funds have been locally earmarked to part-finance two other projects and a third project is being financed by UNDP. Altogether 12.7 per cent of the funds required for this group of projects has been secured, committed or locally earmarked.

29. For the broadcasting sub-sector eight projects (all national and estimated to cost \$24.7 million) have been grouped under rehabilitation and maintenance.

30. Part of the funds required for four of the projects have been locally earmarked. A fifth project is externally funded. These funds constitute 9.1 per cent of total funds required.

31. For the postal sub-sector, there are three projects which are estimated to cost \$4.34 million. They concern the repair or enlargement of post offices as well as the renewal of equipment.

32. The number of projects in this group constitutes only 2.2 per cent of the sub-sectoral programme. External financing secured or pledged amounts to \$396.15 million and local financing to \$58.27 million, i.e. 41 per cent of the cost.

33. In summary, there are 26 maintenance and rehabilitation projects in communications and postal services and the estimated cost is US\$129.22 million. External financing already secured for these projects amounts to US\$1.24 million, while locally secured funds are about US\$15.66 million and an outstanding balance of US\$112.32 million remains to be secured in order to fully implement the programme.

34. In conclusion, it should be clearly and strongly emphasized that the individual and collective efforts of African countries in resolving the current problems and crisis, require African countries to devote special attention to the rehabilitation and reconstruction of basic transport and communications infrastructure and facilities which are basic and fundamental and are absolutely indispensable in the achievement of the objectives of the Lagos Plan of Action and Final Act of Lagos.

35. It is obvious that unless existing infrastructure and facilities are properly rehabilitated or reconstructed and adequate allocations made for their regular maintenance and preservation, capacities and capabilities for maintenance developed locally, the more expansion of the system through new constructions, important and complementary as it is, if carried out at the expense of existing infrastructure and facilities, cannot result in the physical integration of the continent, but could indeed actually compound the problems.

#### B. Social infrastructures

36. In adopting the Special Memorandum by the ECA Conference of Ministers on Africa's Economic and Social Crisis at the 19th session of the Commission held from 24 to 28 May 1984 in Addis Ababa, the African Ministers responsible for Economic Development and Planning expressed their grave concern at the economic and social crisis which has engulfed virtually the whole of Africa and which has become aggravated since the 18th session of the Commission. 5/

37. In that Memorandum, the Conference of Ministers of the Commission expressed its views on the nature, causes and effects of the crisis. The Conference advocated short and medium-term measures together with structural adjustments to be made in the long term throughout the continent in accordance with the Lagos Plan of Action and the Final Act of Lagos. The Conference expressed in particular its concern at the alarming deterioration of the economic and social situation in Africa that had been exacerbated by the persistent drought ravaging the continent. The drought had worsened the food deficit from which a bulk of the population was suffering and led to serious shortages in a great number of States members of the Commission. This had severely affected the living conditions of people in those countries.

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5/ The Special Memorandum by ECA Conference of Ministers on Africa's Economic and Social Crisis, E/ECA/CM.10/37/Rev.2.

38. Generally speaking, set objectives had not been attained because of stagnation in most economies and the sharp increase of population which occurred over the period. The efforts made to provide the social infrastructures needed to create a quality of life (housing for the masses, schools, hospitals, recreational, sports, worship and cultural facilities) and to build a social environment that met the need and aspirations of the people had not been carried through. Worse still, the dwindling of available resources has combined with the effects of the crisis on the organization of the life-style of the people (the widespread and increased movement of people being a case in point) to accentuate the lack of social infrastructures.

39. The crisis therefore underscored the deterioration in social situation despite the efforts that had been made over the last two decades.

40. A quick look at the quantitative growth of infrastructures in some sectors of social development as compared to the growth of need would provide some indications of current social conditions.

41. In the educational sector, the trend is demonstrated by the following tables:

Table 1. Estimates and projections (including South Africa)

Year	Net enrolment rates by age group			Gross enrolment rates by level of education		
	%			%		
	6-11 years	12-17 years	18-23 years	Elementary	Secondary	Post-secondary
1960	32.9	17.3	1.9	44.7	4.8	0.6
1970	44	26.2	4.1	59.3	10.6	1.2
1980	56.4	37.1	7.7	75.3	19.1	2.8
2000	71.6	49.3	12.7	95.4	29.3	4.3

Source: Compendium of social statistics, 1977. - New York, 1980

Table 2: People of school-going age (ECA member States)

Year	People of school-going age by level of education (in thousands)			
	Primary	Secondary	Post-Secondary	Total
1980	72 397	59 382	48 213	179.992
1990	100 684	80 553	64 958	246 177
2000	133 955	111 971	90 671	336 621

Additional classrooms needed (40 pupils per class) in view of number of people of school-going age (ECA member States)

Decade	Primary	Secondary	Total
1980-1990	699 500	832 400	1 531 900
1990-2000	528 900	785 400	1 314 300

Source: Compendium of selected socio-economic indicators for developing Africa by MULPOCs, 1979-2000 by FAO/ECA/UNIDO Forest Industries Advisory Group for Africa, RAF/82/006.

Table 3: Public spending on education

Education-related spending (million of US dollars)				Education-related spending (as % of GNP)				Education-related spending per capita (US dollars)			
1970	1975	1980	1982	1970	1975	1980	1982	1970	1975	1980	1982
3 145	8 466	19 579	19 568	4.1	4.6	4.5	4.9	9	21	42	39

Source: Statistical Yearbook 1984, UNESCO

The table below prepared in 1970 shows the situation with regard its sanitation facilities.

Table 4: Population per hospital bed (1970)

Region	Population per hospital bed	Average population per hospital bed
East and Southern Africa	106 (Djibouti) to 3 035 (Ethiopia)	487 (Lesotho)
Central Africa	98 (Gabon) to 776 (Chad)	362 (Angola)
West Africa	527 (Liberia) to 2 786 (Mauritania)	728 (Senegal)
North Africa	256 (Libya) to 1 055 (Sudan)	410 (Tunisia)
Europe (for comparison)	67 (Sweden) to 194 (Spain)	94 (Netherlands)

Source: Yearbook of World Health Statistics, WHO, Geneva, 1983.

42. The ratio of population to hospital beds varies from country to country and from region to region. On the whole, however, the number of people per hospital bed is very high.

43. What is more, only one out of every four persons had access to drinking water in 1980.

44. The number of people per doctor was estimated in 1970 at one doctor to 10,000 people and in 1980 at one doctor to 6,500 people.

45. Housing needs were estimated at 13 units per 1,000 people with an annual increase of 3 units per 1,000 people.

46. However, the most alarming situation occurs in the employment sector. Estimates were that for every 100 active persons there were 92 dependent people who were not active. The labour force is said to have increased at a rate of 1.8 per cent per year in the 1950s. <sup>6/</sup> In 1975, approximately 45 per cent of the labour force was unemployed or underemployed.

## Manpower structure in developing Africa 7/

Table 5:

	1960.		1979.	
	(thousands)	%	(thousands)	%
Manpower in:				
Agriculture	84 772	80.	107 610	69
Industry	8 145	7.5	20 988	13.4
Services	13 474	12.6	27 540	17.6

Sources: International Labour Organization (ILO) "Labour Force Estimates and Projections 1950-2000") ILO, Geneva 1977 and "World Development Report" prepared by the World Bank, 1982.

47. The trend in social conditions indicated by these few numerical data should be completed by mentioning the fact that most social infrastructures were built in the towns to the detriment of the rural areas which were thus deprived of the infrastructures indispensable for developing the rural world. This explains in part the increase in rural-urban drift. The rural population was estimated in 1960 at 83 per cent of the total population. In 1980, it was 72 per cent and should account for 66 per cent of the total population in 1990.

48. The urban population which accounted for less than 20 per cent of total population in 1960 rose to about 30 per cent in 1980. This means a growth rate of 5 per cent per year or double the growth rate of the total population.

49. The population explosion that is beginning to have repercussions add to the alarming prospects of the trend in social conditions of the people.

50. Indeed, should the current growth rate of population continue, the total population would be some 600 million in 1990. By accounting for approximately 34 per cent of the total, the urban population would provide a workforce of some 205 million people as compared to 120 million in 1980. It is also estimated that in 1980, Africa had less than 20 towns whose population exceeded 1 million. In 1990, it would have more than 30. It is further estimated that in 1990 the towns of Kinshasa and Cairo would have more than 5 million inhabitants each.

51. The table below gives an overview of urbanization trend projections.

Table 6: Towns having more than 100,000 inhabitants (ECA member States)

Population of the towns	Number of towns per year				
	1960	1970	1980	1990	2000
Over 100 000 inhabitants	78	113	130	134	138
Over 500 000 inhabitants	8	14	40	61	90
Over 1 000 000 inhabitants	3	6	16	32	50
Over 5 000 000 inhabitants	0	1	1	2	5

Source: Pattern of urban and rural population increase, ST/ESA/SER.A/68  
United Nations, New York, 1981.

52. The indication is that urbanization will be carried out at the expense of the need to restructure rural space while people move towards those urban centres of some importance such as the national or provincial capitals.

53. In order for the rural areas to have the economic and social infrastructures needed to transform and develop them, they should be provided with a stratified network of small and medium-size rural centres whose population may range from 5,000 to 25,000.

54. The Lagos Plan of Action was adopted by the Heads of State and Government in light of the deteriorating living conditions of the people and the dim prospects for improving those living conditions.

55. Through that Plan, the Heads of State and Government expressed their preparedness to accord pride of place to all matters concerning the development of human resources beginning with the eradication of literacy. The designated priority areas for action and strategies for attaining such objectives as would make for development and speedy self-reliant and self-sustained economic growth.

#### C. Impact of the drought on social conditions and the remedial measures taken

56. The recurrence and extension of the drought in 1982 and 1983 seriously affected the economic and social situation in Africa.



57. In 1985, twenty-five countries were affected and about 205 million people suffered from the effects, namely the famine which resulted from it.

58. The size of the geographical areas affected and of the population suffering from the impact created a state of emergency and compelled African governments to take immediate action to check such effects as the displacement of people, famine, loss of livestock, and the resurgence of endemic diseases.

59. One tragic consequence of this scourge is the displacement of people from those areas hardest hit. The estimated number of people to be displaced is 10 million, and the various investments required to create decent living conditions for them are estimated at over \$100 million. This would involve housing and basic facilities.

60. The Ministers at the 10th session of the Commission decided on steps to be taken to intensify the struggle against this natural calamity from which the continent had been suffering cyclically and to attenuate the effects on economic and social conditions in Africa. 8/

61. Pursuant to resolution 473(XVIII), adopted at that session, ECA organized in co-operation with the United Nations Environment Programme (UNEP), the United Nations Sudano-Sahelian Office (UNSO), the United Nations Educational Scientific and Cultural Organization (UNESCO), the Food and Agriculture Organization of the United Nations (FAO), the World Meteorological Organization (WMO), and the Organization of African Unity (OAU), a Scientific Roundtable on the Climatic Situation and Drought in Africa. That Roundtable was held from 20 to 23 February 1984 at ECA headquarters in Addis Ababa.

62. The Roundtable considered and adopted after amendment the draft Regional Plan of Action tabled by the Commission. 9/ The Regional Plan of Action presents an action programme in three parts: a set of activities for the short term (1985-1985), the medium term (1986-1990), and the long term (1990-2000).

63. The short-term activities concern action to be taken at the national level by the Governments with support coming in from the regional level by means of an institutional structure for co-ordinating the aid and assistance provided during emergencies, the strengthening of national meteorological and hydrological services, support to research, training and institution-building activities conducted at the national level.

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8/ E/ECA/SDEHSD/ENV/SRT/84/WP.2, February 1984 "Impacts of and Responses to Drought in Africa - An Overview".

9/ E/ECA/SDEHSD/ENV/SRT/84/WP.3.

64. The medium term would involve activities that would complement those being conducted in the short term by the Governments and in particular involve the exchange of data and information, the establishment at subregional level of systems to combat drought, the construction of road networks that will be motorable all year round and the like.

65. The long-term activities will comprise multi-disciplinary research programmes focussing further on climatic conditions and the preservation of genetic resources.

66. The activities should, as a matter of priority, focus on the following: the provision of food aid, the supply of drinking water and irrigation water, the development of infrastructures for the transport, storage and distribution of food and the resettlement of people from the areas most adversely affected, in those areas where living conditions will have been improved.

#### D. Rehabilitation

67. While the aforementioned activities are aimed at defusing the crisis created by the recurrence of drought, the solution to the economic and social development problems that the continent has been facing for the past two decades can only come from long term activities which accord priority to the vulnerable sectors of Africa's economy as revealed by the current emergency situation.

68. Demographic trends currently indicate that urbanization is accelerating mainly in the development of towns having 100,000 inhabitants or more. They also indicate that the number of young people is growing and for that reason infrastructures for educational, moral and vocational training as well as for job creation will have to be set up as a matter of priority.

Table 7: Towns having more than 100,000 inhabitants (total number of towns and classification - percentage - by population - number of inhabitants)  
(ECA member States)

Year	Number of towns	Population of towns (inhabitants)					
		100 000- 500 000	500 000- 1 000 000	1 000 000 5 000 000	over 500 000	over 1 000 000	over 5 000 000
1960	78	29,8	6,4	3,3	10,2	3,8	0
1970	113	27,7	7,1	4,4	12,4	5,3	0,8
1980	130	27,7	20,8	10,8	30,8	12,3	0,7
1990	134	53,8	21,6	23,1	45,5	23,9	1,5
2000	138	24,1	30,4	31,9	65,2	36,2	3,6

Source: Pattern of urban and rural population growth: ST/ESA/SER.A/68  
United Nations, New York, 1981.

Table 8: Population of towns (ECA member States)

	1960	1970	1980	1990	2000
100 000 to 500 000 inhabitants	70	99	88	72	47
500 000 to 1 000 000 inhabitants	5	8	27	29	42
1 000 000 to 5 000 000 inhabitants	3	5	14	31	44
Over 5 000 000 inhabitants	0	1	1	2	5

Source: Pattern of urban and rural population growth. ST/ESA/SER.A/68,  
United Nations, New York, 1981.

Table 9: Towns having over 5 000 000 inhabitants

	(Population in thousands)			
Towns	1970	1980	1990	2000
Cairo	5 430	7 464	9 991	13 058
Kinshasa			5 556	8 411
Lagos				6 945
Addis Ababa				5 600
Kartoum				5 079

Source: Pattern of urban and rural population growth. ST/ESA/SER.A/68,  
United Nations, New York, 1981.

Table 10: Population density (per square km) (ECA member States)

	1960	1970	1980	1985	1990	2000
Africa	9	12	16	18	21	39
East Africa	12	18	21	25	30	58
Central Africa	5	6	8	9	11	19
North Africa	8	10	13	15	17	27
West Africa	13	17	23	32	38	61

Source: "Demographic handbook for Africa, 1982, UNECA forthcoming".

69. The studies on population growth trends and of trends in the distribution of that population also indicate that the rural population will be as much as 400 million in 1990 having risen from 216 million in 1960 to 325 million in 1980\*.

70. Foreseeably, certain rural areas will become overpopulated with the consequence that the arable lands will be overfarmed and run the risk of being exhausted too quickly.

71. Accordingly, the priority objectives for keeping living conditions from deteriorating too fast in most member countries should focus on the effects and consequences of the high population growth which is taking place in Africa.

72. The effects and consequences would concurrently and simultaneously modify the situation in the urban centres and rural areas.

#### D. Human settlements and housing

73. The scope of the effects of population explosion will increasingly compel the governments to accord due priority to the problems of human settlement.

74. Without such attention, the conditions under which most people will be living will not make for rational and effective use of human resources.

75. As briefly described in the foregoing paragraphs, the current demographic trends clearly indicate that urbanization is going against the priorities that the development of the rural world requires. This is because such urbanization is taking place only to the benefit of the large built-up areas. A policy for developing a network of medium-sized rural centres will be indispensable for structuring rural space.

76. Human settlements are the stage on which most economic and social activities are acted. Most events which influence human life occur in human settlements. There is therefore a very close relationship between human settlements and economic development. The planning of human settlements could determine the extent to which the basic needs of people in a built-up area are satisfied.

77. The economic and social crisis ravaging Africa becomes perceptible in human settlements. The run-away urbanization of African towns has given birth to such social evils as insecurity, crime, disease, loss of cultural identity, unsuitable social, educational, cultural and economic infrastructure and unemployment.

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\*/ See Annex I.

78. While the four years over which the Lagos Plan of Action continues to be implemented has enabled African Governments to set up structures for improving the living conditions of the people, the fact still remains that the growth trend of human settlements has virtually remained the same as in preceding decades. It is characterized by a depopulation of the rural areas to the benefit of urban, declining production in the **agricultural sector, the ever-growth of national capitals** and the decline of secondary centres or intermediate towns.

79. Human settlements in Africa are undergoing a crisis and that crisis results from the socio-economic crisis in Africa. The complexity of the urban situation in Africa defies logic. That configuration of practices, attitudes and mentalities make for confusion and amalgamation. While the human settlements crisis in Africa is not necessarily widespread, it is at any rate multi-faceted. It can be identified at three levels depending on whether human settlements are considered as a living environment, a nucleus of social inter-action or a vehicle of civilization.

80. As specific forms of habitat, human settlements should meet a certain number of well-defined needs. Furthermore, they must be part of a vast system that is constantly changing and within which the field of human activity is co-ordinated with ecological space.

81. To cope with the economic and social crisis, most African State have geared their national plans to development. Housing and infrastructural programmes are not considered as a social investment and are for that reason not classified among the priorities. The apparent lack of appropriate national housing and infrastructural policies and programmes has been reflected in the serious shortages of housing and a proliferation of unhealthy living quarters, whose problems are compounded by the tendency for population to grow, more particularly through increased migration towards the urban areas. Added to the lack of proper housing is that of corresponding facilities and services such as water supply, sanitation, schooling and recreational services.

82. According importance to the housing and infrastructural sector will stimulate various branches of activity and make it possible to improve health standards which in turn will increase the sources of revenue and the number of jobs. The most important contribution that the housing and infrastructural sector can make to economic development is capital formation with its concomittant benefits to industrial, agricultural and other investments.

83. Housing and infrastructure are unique sectors within the development process in that they constitute both a requisite for development and a development objective. The individual's health and productivity are directly influenced by the conditions

under which he lives. The construction sector which embraces the building materials industry and construction enterprises plays the role of catalyst for the rest of the economy.

(a) Housing and infrastructure as regulators of the economy

84. Because of the catalytic effect that the construction sector has, resulting from the use of local building materials and manpower, the diversification of demand and of the end-product itself which generates income, the sector often stimulates or slows down economic activity, most especially in countries such as those in Africa where the public sector is in most cases responsible for matters of housing and the corresponding infrastructure.

(b) Housing and infrastructure as regulators of employment

85. When the technical factors of production needed in the housing and infrastructural sector are limited as happens to be the case in most African States, the number of jobs created increased especially in terms of semi-skilled and unskilled labour. In such cases, the conventional methods of labour-intensive construction are practised rather than the advanced methods of construction which depend largely on prefabricated or mechanised elements.

(c) Housing and infrastructure as regulators of social life

86. The importance of housing to human activities should be emphasized. The lives of people can be considerably modified by whether or not they have their own homes. People who live in areas provided with such community services as collective facilities, public and commercial services, develop better than people living in shanty towns, where the lack of infrastructural facilities is the major characteristic.

(d) Housing and infrastructure as regulators of rural-urban interaction

87. The current trend resulting from Africa's economic crisis and reflected in an increase of rural-urban migration only goes to worsen the housing and infrastructure situation. The hopes inspired by urban areas in terms of employment, education and various socio-economic infrastructures obviously attract rural people. For this reason, rural areas are losing people while the economic prospects of the urban zones are so limited that the potential of the migrants goes unexploited or underexploited. In order to slow down this trend, larger communities will have to be set up in the rural areas having the name of growth poles. They should be provided with housing, community services and various infrastructures.

38. The need to institute proper housing and infrastructural programmes to defuse the crisis in these sectors has been sufficiently highlighted in the foregoing. Such programmes should be built around short and medium-term measures that could be summarized as follows:

Short-term programmes

- (i) Preparation of guidelines to be followed in establishing a policy and programme concerning housing and infrastructures. Such guidelines should set realistic standards and objectives for specific periods;
- (ii) Co-ordination of economic and social development plans with physical planning;
- (iii) Revision or formulation of building regulations and codes;
- (iv) Setting of standards to be observed in land use;
- (v) Training of qualified manpower in human settlements;
- (vi) Initiation of research to develop existing building materials industries;
- (vii) Initiation of systematic geological studies of existing raw material deposits;
- (viii) Mobilization of adequate capital for the gradual development of low-cost housing construction programmes;
- (ix) Institution of land ownership policies.

Medium-term programmes

- (i) Acquisition of land;
- (ii) Formulation of guidelines and preparation of detailed urbanization plans;
- (iii) Preparation of standardized housing and corresponding infrastructural plans for the masses;
- (iv) Carrying out of pilot projects in low-cost housing construction;
- (v) Initiation of research into economic conditions that make for the development or establishment of building materials industries;
- (vi) Revision or preparation of new regulations governing loans for housing construction, rent, lease-clauses and the like.

89. These programmes that have been indicated are not exhaustive. They are the minimum requisites that would enable African countries to come out on top of the crises they are facing in the housing and infrastructural sectors of human settlements. Obviously, if they are to be able to develop their economies in a rational manner, African countries should so co-ordinate the activities undertaken in the various economic sectors as to emerge from the crisis they are facing.



	Population (in thousands)					Average annual population growth rate (%)					
	% total population										
	1970	1980	1985	1990	2010	1950-1960	1960-1970	1970-1980	1980-1985	1985-1990	1990-2010
08	333,069	445,497	518,705	606,107	1,107,964	2.23	3.54	2.90	3	3.11	3.61
11	70,311	120,701	158,173	205,876	526,334	4.72	5.10	5.40	5.40	5.27	4.69
5	21.11	27.10	30.50	33.97	47.50						
87	262,758	324,796	360,532	400,251	581,630	1.31	1.96	2.11	2.08	2.09	1.86
5	72.89	72.90	69.50	66.03	52.50						
82	61,296	84,392	98,795	115,374	222,125	2.19	2.34	3.19	3.15	3.10	3.27
56	18.40	18.94	19.04	19.03	20.04						
610	172,900	229,460	266,120	309,200	594,535	2.11	2.28	2.83	2.96	3	3.26
31	51.91	51.50	51.30	51.01	53.66						

er States

lbook for Africa (1982/UNECA forthcoming)