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REPORT ON FORMULATION AND IMPLEMENTATION OF HUMAN SETTLEMENTS POLICIES TOWARDS MITIGATING RURAL/URBAN IMBALANCES IN AFRICAN COUNTRIES

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I. INTRODUCTION

1. Africa is still predominantly rural - spatially and demographically and may remain so for some time. Over 60 per cent of the population is still rural and agriculture is still the mainstay of most of the populations and most of the economies. The development of rural life, rural settlements, institutions and economy are therefore the main bases by which the region can expect to pull itself up with dignity and equity. In each country of the region, therefore, development of the rural sector is now almost synonymous with national development. Besides the recent United Nations New Agenda for the Development of Africa in the 1990s focuses on the continued pursuit of policies and strategies in the agricultural and rural development sectors in order to fully integrate rural economies into their national contexts and to achieve food security and strengthen self-reliance in food. According to the international agenda Africa is determined to enhance agricultural productivity, improve distribution mechanisms, and establish reliable market schemes, credit system and adequate storage facilities.

2. Agenda 21 addresses in chapter 7 the promotion of sustainable human settlements development which brings together two strands of thought about managing human activity. The first concentrates on development, including a concern for equity, while the second looks to achieving development without damaging life - support system or jeopardizing the interests of future generations.

3. In order to achieve human settlements sustainability, an entire integrated urban and rural system of a country must be taken into account. One obvious resource to promote human settlements sustainability is the interrelationships that exist between large, medium and small communities within a country. In African countries, there are trends towards concentration of population in a few large cities. Such concentration will only be reduced when the kinds of opportunities and urban services that exist in these cities are extended to the smaller towns and villages which may be the source of the migration. It is necessary, then to devise policies which lead to a balanced spatial development if human settlements sustainability is to be achieved.

4. This report discusses the implementation of the programme areas of chapter 7 of Agenda 21 in the context of sustainable human settlements development, focusing on policies towards mitigating rural/urban imbalances in African countries.

II. MAIN FACTORS INFLUENCING SUSTAINABLE DEVELOPMENT OF HUMAN SETTLEMENTS

5. Before policies which really come to grips with sustainability within a human settlements context can be formulated, an explicit definition of sustainable settlements is necessary. In pursuit of this, Hardoy and others (1992) assert that sustainable human settlements must be defined to include : minimization in the use of non-renewable resources; achievement of the sustainable use of renewable resources; staying within the absorptive capacity of local and global waste - absorption limits; and meeting basic human needs.

A. Economic dimension of sustainable human settlements

6. Sustainability in economic development, in a limited sense, creates the conditions for economic growth while maintaining the stock of natural resources at or above the current level. The Brundtland Commission emphasised the priority to be given to the poor: "the whole rationale for sustainable development therefore is to raise the standard of living and especially the standard of living of the least advantaged in society - while at the same time avoiding uncompensated future costs" (Pearce, 1993).

7. The slowing of economic development in recent years has led to a further decrease in investments and severely limited the ability of governments to contribute to the budgetary expenses of the cities and regions. In real terms, GDP per capita fell on account of the growth of population, widespread unemployment, and low - productivity in agricultural and non-agricultural sectors. This has resulted in a difficulty for the majority of population to pay their housing expenses. A rapid growth of population at low levels of income in African human settlements having high and low levels of technology produces segmented formal and informal labour markets, where an expansion of informal sector is a predominant trend. This trend has effects on housing and construction since much maintenance, repair and construction work is carried out on a self - help basis. Unless the majority of households can enjoy some measure of the welfare which accrues from productive employment, sustainable human settlements are likely to remain an illusion.

B. Population distribution, urbanization and internal migration dimension of sustainable human settlements

8. Many African countries consider the patterns of population distribution in their territories to be unsatisfactory and wish to modify them. As a rule, population is unevenly distributed and densities vary greatly. Kenya is a country of low population density by overall terms. The mean population density is estimated at 27 persons per sq.km. However, about 80 per cent of the population is concentrated in only 12.5 per cent of the land area. Distribution of population is illustrated in Figure I. In Zimbabwe over 70 per cent of the population is crowded on less that 30 per cent of total area of the country. There have been some attempts to resettle people from over - crowded rural areas to support their activities without damage to the environment and to provide services.

9. The urban component of the population of African countries grows at an average of 5.5. per cent per annum while the overall annual population increase averages 3.0 per cent over the recent years. The urbanization process takes such trend as undermines the position of the rural regions in the national development. Three observations are pertinent here:

(i) The process is sapping away youth and leadership, but it is not depopulating the rural areas yet because they still have net population growth on account of high birth rates;

(ii) The process is not shifting the basis of national economies from the rural regions to the urban centres. It is rather paralysing the rural roots of the national economy without offering a viable replacement anywhere;

(iii) In almost every African country, the urban population is heavily concentrated in a single city which dominates the urban scene. As a rule, this city and one or two other cities boom with innovation, capital investments, services and facilities while the rest of a country's settlements remain inert, deprived and traditional.

10. The main cause for the phenomenon of overurbanization is the "push" from villages, rather than the demand for labour by growing economic activity, the "pull" factor. The urban per capita incomes are almost universally found to be higher than per capita rural incomes in most of the countries. In practically all African countries, for example, the ratio of urban - rural wage income is at least 2:1. In many countries, in fact, this ratio ranges between 4:1 and 8:1 (e.g. Burkina Faso, Lesotho, Swaziland, Kenya Senegal, Nigeria and Gabon).

11. African countries have the largest proportion - almost half the population - aged under 15. This means that more job opportunities are urgently needed for younger people entering the work force. In many countries, the number of urban unemployed is currently growing by 10 per cent or more every year. Two important characteristics are: the youthfulness and relatively high level of education of the unemployed. Typically, youths represent 60-75 per cent of the unemployed in the region, although only a third of the labour force is young. In the 15 countries for which information is available, their rate of unemployment was on average four times the rate for adults. The age structure of African population also calls for the needs for a higher rate of construction of schools, shelter and health care centres.

C. Environmental dimension of sustainable human settlements

12. Not surprisingly, given the complexity of any definition of sustainable development, there are a number of dimensions of the concept that must be incorporated into any effort to implement it within human settlements. The first of these is the environmental and natural - resources dimension. In one sense, it is this that transforms the traditional definition of "development" into what will, it is to be hoped, become" sustainable development".

Environmental impacts of human settlements growth on land

13. The entire concept of sustainability implicitly rest upon the availability of productive agricultural land to enable a population to feed itself to a significant degree.

14. In Africa, many Governments do not possess the ability or the power to undertake effective land use planning to achieve efficient land use. A lack of funds, trained personnel and data, and rigid and awkward planning procedures inhibit the efforts necessary to regulate land development. The result is manifest: wasteful and ugly urban sprawl, segregation by economic class and the immense growth of illegal squatter settlements.

15. Deforestation is a major environmental problem in Africa. The decline of forest resources in Ethiopia principally stems form the traditional conception that forest land is after all a "potential crop land or a source of fuel". The result has been a wide - spread removal of trees for construction, fuel, shifting cultivation or agricultural expansions. Over 95 per cent of the country's energy demands have been met by the use of biomass. The country is now feeling the severe impact of unabated misuse of forest resources for the last six to eight decades which reduced the forest cover from about 40 per cent of the land surface to a mere 3.5 per cent of it (see Figures II and III).

16. Soil erosion is another devastating environmental problem in the rural areas of Africa. It has been estimated that Africa losses 6 million hectares of formerly productive land each year when they reduced to sand. A further 21 million hectares is reduced to a condition of zero productivity. This trend, if unchecked, can have disastrous consequences for the development of rural areas in Africa. The impact of soil erosion is to reduce the carrying capacity of the land as shown on Figure IV.

Environmental impacts of human settlements on water

17. Unfortunately, human activity has severe impacts upon water quality within the vicinity of human settlements. Excess removal of ground water for drinking and other uses, particularly agriculture, not only leads to depletion of this resource, but also leads to ground subsidence which in turn leads to an increased danger of flooding in low-lying areas. Equally serious is the effect of wastewater and fertilizers disposal into the natural waterways.

18. Although the proportion of water utilized in human settlements of Africa is modest in comparison with other uses, such as agriculture, the uncontrolled use of water for human settlements has far-reaching negative impacts. These impacts vary from the direct degradation of water bodies receiving untreated wastewaters to desertification.

19. As African countries increasingly rely on agro and other industries for economic growth, water demands will not remain at present levels but will increase exponentially. But even now settlements are faced with mounting cost of water shortages, well deepening and development of remote new sources.

D. Technological dimension of sustainable human settlements

20. Within the human settlements context, the level of technology has a most crucial effect both with respect to the infrastructure, especially energy supplies, water, sanitation and transport. These infrastructural items, in turn, are responsible for determining whether human settlements are in balance with their environment, hence forming a basis for sustainable development or not.

Energy and technology

21. Generally, energy consumption is higher in urban than in rural households. For example, urban dwellers in Senegal's five principal cities consume 265 kg of oil- equivalent per person annually, while rural residents consume only 110 kg. The primary reason for this is that urban residents use more energy-intensive fuel - charcoal, electricity, liquefied petroleum gas - while people in rural areas tend to use only firewood.

22. Low incomes of the bulk of rural population have usually resulted in the substitution of commercial fuels for non-commercial fuels. For example, in Sub-Saharan African woodfuel demand grew by 3.1 per cent per capita annually from 1975-185 while real GDP per person fell by 1.8 per cent each year. Fuelwood accounts for the greatest share of domestic energy consumption patterns in Africa. It is used over 90 per cent of primary energy needs in the rural domestic sector. The environmental impacts of firewood and charcoal is significant deforestation and the reduction of productivity of soil. Hence, the energy-use patterns increase poverty, and there is a vicious circle which links poverty to energy.

Transport and technology

23. In many African countries the transport infrastructure remains either grossly inadequate or even virtually non-existent. Within the framework for the Second United Nations Transport and Communication Decade in Africa the need is to: 1) construct about 15,000 kilometres of classified main roads and rehabilitate about 200,000 kilometres of rural roads (all of which total investments of about $10 billion at 1990 prices), and 2) bring 85 percent of paved roads 40 per cent of unpaved and 25 per cent of rural roads to good condition.

24. A major energy consumer in most cities is urban transport: as much as 50 per cent of the total fossil fuel consumption in the world is due to it. It is also within this sector that major potential reductions in energy consumption can be made and where environmental improvements are possible. The ultimate solution to the urban transport problem lies with public transport.

Water, sanitation and technology

25. The coverage and efficiency of clean, piped water systems is not only insufficient but has been deteriorating in the recent years. According to the World Bank, 35 per cent of the urban population in Sub-Sahara African countries has no portable water within 200 metres. About one-third of dwellings in three towns in Nigeria, and 39 per cent of plots in six towns in Tanzania have no piped water.

26. The coverage in the rural areas is much worse than in urban areas, with only 28 per cent of population having access to safe water. In Sub-Saharan Africa 47 per cent of urban households and 18 per cent of rural population have access to sanitation. WHO estimates that for the construction of rural water supplies mean per capita cost for African region is $41.5,

for rural sanitation - $23.0 In order to reach 100 per cent coverage rate Sub-Sahara countries should invest 10.2 billion U.S. Dollars in construction of rural water supplies and 6.4 billion U.S. Dollars in construction of rural sanitation. The success of provision of these services has significant environmental impacts within human settlements in potential reductions in water pollution of streams, rivers and coastal areas, and for improving the overall health of population.

III. POLICY PROBLEMS OF REDRESSING SPATIAL IMBALANCES

27. Many African countries pay a great deal of attention to improving and strengthening the settlement system generally, and the rural settlement system in particular, in policy actions and investment proposals to resolve the migration problems, curtail population and activity concentration in the primate city, and break the inertia of the rest of the country.

28. In broad terms, two types of secondary-city policies have been tried in Africa. First, urban-based revolving around the concepts of "growth poles" and "services centres" have been attempted. Secondly, rural-based policies have also been tried. These have included in particular, agrarian reform policies aimed at generally improving rural conditions, as well as land - resettlement programmes.

29. Kenya's Growth Pole and Designated Service Centre strategy aims at controlling the pattern and scale of urbanization while satisfying the objectives of accelerating rural development in order to bring about balanced economic development and increased job opportunities. The components of such a strategy may be all or some of the following.

(i) The development of service centres for the location and provision of services such as health, education, markets, sanitation, water, power and others in order to increase the accessibility of these to the rural population thereby improving the quality of lives of the rural population. These services are best provided in a concentrated pattern for the advantages that time, energy and money are saved through combination of journeys to one instead of several centres. One possible way of selecting these service centres could be based on their hierarchical ranking. For example, in Kenya, it was found convenient to the users to provide one designated local centre for every 5000 rural population; one market centre for every 15,000 rural population; one rural centre for every 40,000 rural population and one designated urban centre for every 120,000 rural population. A local centre is designed to be within walking distance of the population served and to contain, at least, a full primary school, several shops, a dispensary, a public water supply and an open market. A market centre will, in addition to providing the facilities available at a local centre, have a subpost office, telephone facilities, a police post, a local bus strip and other commercial and local administrative services and be served by a minor road; it may have a secondary school up to form IV, a health centre with maternity facilities, better shopping facilities, and bigger markets, a piped water supply, electricity and sewage disposal system, full postal and banking facilities; and will represent the lowest end of the urban hierarchy in the country. These centres will be suitable for the rural industrial development. An urban centre will contain over and above the facilities in the lower level service centres, have a fully equipped hospital, secondary school up to form IV level, other specialized services and serve as focal points of

commercial, industrial, administrative and social services required by the rural population. All urban centres are also designed as reception centres for rural-urban migrants.

(ii) Certain towns may be designated with potential for growth to perform a growth function facilitating development of industries processing agricultural products and thus serving to attract rural urban migration. This requires a deliberate policy of creating favourable opportunities for commercial and industrial developers away from the primate cities to activate potential development in a few smaller towns. These towns should be located in development potential areas to promote regional growth. Such towns will be located in strategic positions in relation to existing or potential population distribution, resource development and transportation network, existing economic organization or level of infrastructure and choice as major centres for education and administration. In Kenya, 20 such towns have been selected as growth centres in addition to Nairobi and Mombassa.

30. Evidence from studies on rural service centres in Cote d'Ivoire, Malawi, Nigeria, the United Republic of Tanzania and Zimbabwe suggests five main reasons which have been adopted to justify rural service centre development in African countries: the provision of infrastructure and services in support of agriculture; rural poverty reduction; coordination of economic growth in newly opened areas; redress of existing spatial/regional imbalances in development; and decentralization of local government and administration.

31. In performing their function, rural service centres concentrate on the following:

(a) Collection and marketing of agricultural produce from the surrounding rural areas;

(b) Provision and distribution of agricultural inputs, including seeds fertilizers, tools, repair facilities and financial credit;

(c) Provision of basic social services, particularly schools and health-care facilities;

(d) Provision of basic agro-processing facilities for household subsistence, as well as for marketing, for example, grinding mills for corn and other cereals;

(e) Provision of basic, low- and middle-order consumer goods, such as meat, vegetables, kerosene, sugar, bread, cooking oil etc.;

(f) Provision of specialized infrastructure such as telephones and electricity.

32. Malawi is one of the few African countries where the spatial dimension has been systematically integrated into national development policy. The emphasis within Malawi's national development policies is on general poverty reduction and improvement of the living conditions of rural people. A key dimension of the National Physical Development Plan is the six-tier hierarchy consisting of the following: 1. National centre; 2. Regional Centre; 3. Sub-regional centre; 4. District and/or main market centre; 5. Rural market centre, and 6. Village centre. The last two levels are designated as "rural service centres" and their primary function is the provision of a direct link to the rural population.

33. In Zimbabwe, rural service centres have been implemented in the context of a new national hierarchy of human settlements made up of the following seven tiers: 1. Consolidated villages; 2. Rural business centres; 3. Rural service centres; 4. District service centres; 5. Growth point; 6. Towns; 7. Cities. Each service centre is designed to serve up to 10,000 people residing within a maximum radius of 20 kilometres. Rural service centre functions include: secondary schools; clinics, ward development offices, local markets, general retail shops, passenger transport, telecommunication, and water supplies. District service centres are designed to provide the following functions: local government headquarters, offices of central government's district administration, district hospitals, secondary schools, government training centres, and banking facilities. Those district service centres with a local resource base are also expected to accommodate rural industries.

34. In Botswana, there is a comparatively elaborate settlement system which ties rural areas to towns. Tswana agro-towns have always been the pivot of social and spatial organizations. As well-established regional centres they, in addition to political relationship with their rural hinterlands has been both exploitative and growth inducing. Moreover, because of large populations, they possess the thresholds for variety of functions that are not usually associated with rural areas in development of agro-towns. First, they do not have their own administrative or political structures and second, their economic foundations are weak because of low incomes and lack of investment, which restricts their attraction for the establishment of manufacturing.

35. The process of the evolution of administrative centres in Nigeria has influenced, to a great extent, the general pattern of socio-economic and physical development. However the spacing of these settlements and the general pattern of development show that the impact of development emanating from the centres has not reached those rural areas which are located at considerable distances from the centres. The implication of this is that the catchment areas of the administrative growth centres are still as large as to make fruitful urban-rural interaction difficult. At the same time, the rural development efforts presently put forth ate not informed by any physical planning conceptual framework, while investments allocated for projects are neither prioritized nor rationalized.

36. Recent reviews of the performance of the policies cited above have not been successful. Secondary cities, including growth poles and service centres have not attracted as much economic activity as originally intended by policy-makers.

37. Villagization, the second most common rural settlement strategy, has been tried in Algeria and Tanzania. In Tanzania, the idea was that people are grouped and settled in a more nucleated settlement pattern, they could be provided with the necessary infrastructure much more easily than when they remained in isolated homesteads. The role of infrastructure has been conceived of as that of facilitating meaningful integration of towns and the countryside and the different sectors of the national economy, as well as to afford easy and quick movement of goods and people between settlements.

38. The main problems of villagization are: the process has often been forced and physical planning has not been in harmony with social organization and economic production.

39. In practice, in most countries, an integrated approach to rural settlements planning within the framework of socio-economic development is not fully recognized, and, very often, African countries lack the administrative authority to formulate and co-ordinate intersectoral projects in rural regions. Electricity, water-supply and transportation programmes are not related to one another or to other sectors of the national economy, such as fisheries, agriculture, forestry and tourism. One-sided regional physical development plans, without adequate linkages with rural development, have resulted in serious shortages of rural settlements development in some African countries.

40. The implementation of regional physical development plans is not supported by appropriate legal, financial and technical measures. There is a considerable uncertainty about relative effectiveness of industrial location subsidies and infrastructure subsidies in rural conditions of Africa. Very little evidence is available on the economic structure of intermediate towns of different size in African countries. Particularly elusive is information on the extent of small-scale manufacturing, its role in job creation and the contribution it makes to rural income. Very few data sources cover rural regions of these countries, and those with a high level of coverage are usually specialized and narrow in relation to the needs of regional physical planning which presupposes integrated, multi-dimensional, land-use information. The most immediate constraint on regional physical planning is lack of assessment of the capabilities of land and information on rainfall, water resources and forests in rural areas.

41. The most elementary unit of physical planning in relation to agriculture is the village. There appears to be an absence of physical plans of rural localities in many African countries. Thus, social and economic factors, the location of activities and the use of land over time cannot be taken into consideration by peasants individually or collectively. Very often the location of rural settlements is in contradiction with cultivation techniques, irrigation networks and the major agricultural activities. Without physical plans of rural localities there cannot be functional hierarchical relationships from the village to other human settlements.

42. Most rural settlements in Africa have no characteristic functional pattern as follows: a residential zone with a central core containing the principal administrative, public and shopping buildings, residential zone and industrial zone. The development of rural settlements is carried out without conformity with physical planning standards and building norms and regulations. As a result, prevailing wind, the pattern of sun and shade, radiation and other factors are not taken into consideration.

IV. RECOMMENDED POLICIES FOR SUSTAINABLE HUMAN SETTLEMENTS DEVELOPMENT AND MANAGEMENT

43. The implementation of the programme areas of chapter 7 of Agenda 21 relevant to the above policies must take place under the authority of the government of countries and institutions, enterprises communities and the people. This implementation should focus on the following.

44. A clear urbanization policy should be formulated to indicate the ratio of urban to rural population, and the pattern of distribution of population among cities of various sizes that would be most advantageous from the economic and social points of view. This policy should establish the interrelationship between urbanization, industrialization and the process of economic development so that the forces of urbanization may be channelled into a planned and organized pattern allowing for balanced human settlements development in both rural and urban areas.

45. In the context of sustainable development, efficient use of resources, especially land, water and energy, should be regarded as the basis for settlements planning and development. Therefore, sustainability implies strengthening the planning function at national, regional and local levels.

46. Settlements policies should be formulated to ensure a more balanced distribution of population and diversification of the economic base, conservation and rational use of natural resources including vegetation, soil, water and wildlife.

47. The vital question of how best investible resources could be steered in space and time into agriculture and selected poles has yet to be resolved by the preparation of physical development plans which should aim at reconciling conflicting objectives between the desire for a better life and sustainability. Comprehensive physical plans should ensure optimum utilization of territory (location of productive forces, population distribution, land use, infrastructure networks and services, environmental values etc.), development of a system of intermediate settlements with sufficient dynamism to counteract the attraction of the capital cities, designation of towns of appropriate sizes as social, economic and cultural centres for their rural areas, development of growth poles for backward regions, amalgamation of villages to share services and facilities.

48. Governments should implement strategies for sustainable provision of adequate shelter for rapidly growing populations and for the currently deprived urban and rural poor through an enabling approach to shelter development and improvement that is environmentally sound.

49. Plans for water supply, sewage disposal and drainage should be an integral part of overall settlement plans. These plans must include provisions for support components, i.e., institutional arrangements, human resources development, community involvement, information support, in addition to physical facilities.

50. National, regional and local land use planning should be deeply concerned with the implications of transport and of transport-related effects. Co-ordinated transport and land use planning should make provisions for gradual improvements to public-transport systems, so as to enable them to respond to a fast-growing demand for transport. Transportation planning has tended to concentrate on motorized traffic but attention needs to be paid to the travel demands of the poor and the modes of travel most commonly involved.

51. National action programmes should promote integrated production of agricultural-waste and biomass energy outputs, and support reforestation and natural-forest regeneration, with a view to a sustained provision of biomass energy to meet the needs of rural population.

52. Town planners, designers and manufacturers should be encouraged, through physical planning guidelines, building norms and regulations, standards and codes of practice, to reduce energy consumption by changes in human settlements patterns and utilization of low-energy locally produced building materials.

53. Encouragement of high-density rural settlements and of settlement consolidation in some rural areas could be effective mechanism for protection and management of land resources and for access to land by the rural poor. A concentrated settlement pattern would also economize on the provision and installation of necessary infrastructure.

54. Individual rural settlements must be guided in their orderly development by plans reflecting local requirements and conditions. This should occur within the framework set by regional physical plans. The local plans should be realistic, flexible and they should provide a vehicle for integrated rural development. In the scenarios the long-term perspectives for rural settlements development should be considered the following objectives of regional planning policy: development, equalization, spatial ordering, conservation and others.

55. Rural development in African countries can be greatly enhanced by governments through the adoption of national rural service centre policies. In formulating such policies, a number of issues should be taken into account.

(i) Rural service centres are part of a wider network of nodes of economic exchange and spatial interaction in general;

(ii) Rural service centre policies should be flexible and should be able to accommodate both service-oriented and growth-oriented centres;

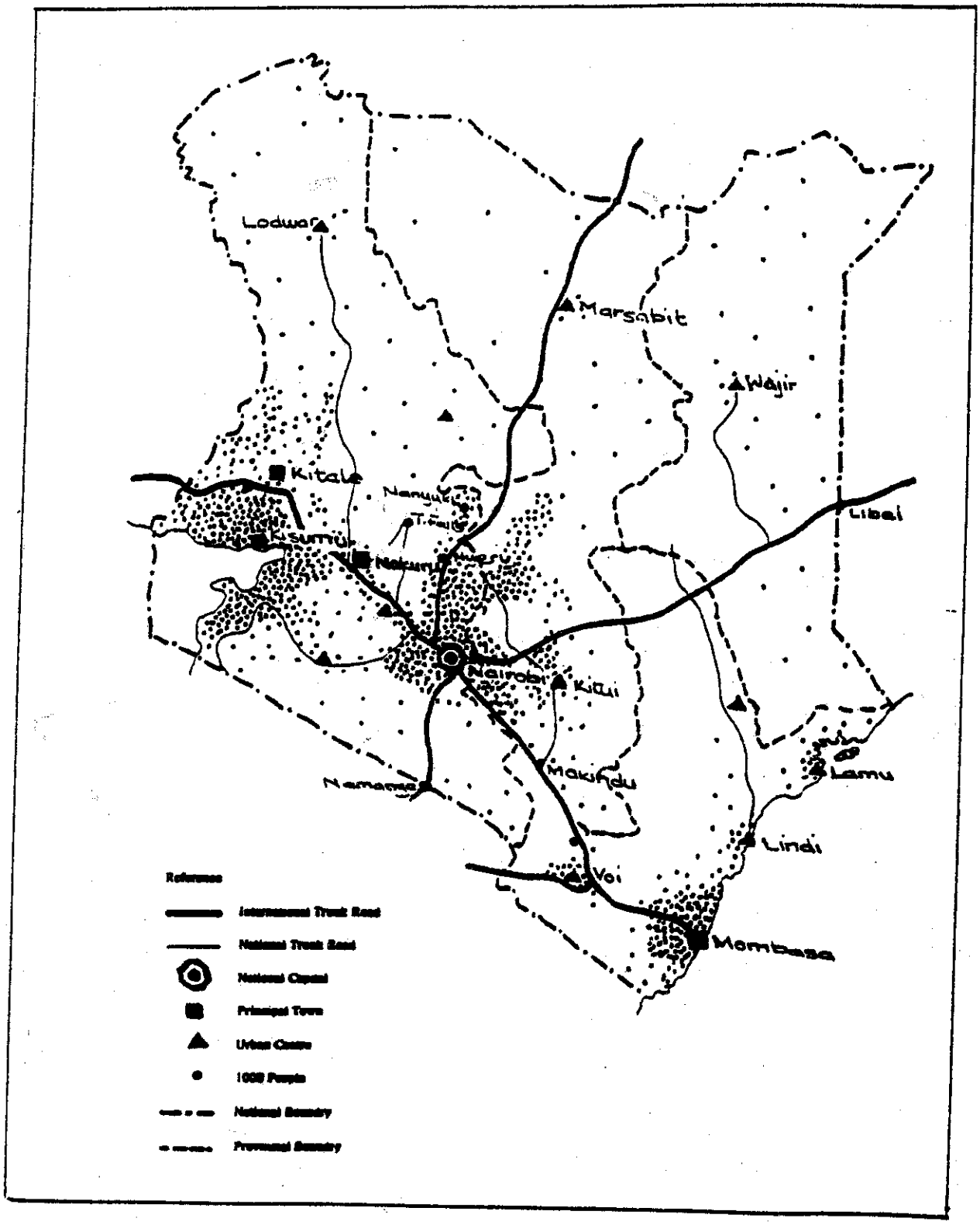
(iii) National rural service centre policies should contain clear and rational guidelines regarding the minimum level of functions, that is infrastructure and services, which each tier of the rural service centre hierarchy should offer.

(iv) Rural service centre policies should also indicate the financial resources required for implementing the whole policy, and how these resources are to be generated.

(v) Rural service centre policies should indicate clearly the agencies with the primary implementation responsibilities. They should also outline mechanisms for coordinating sectoral investments in rural service centres.

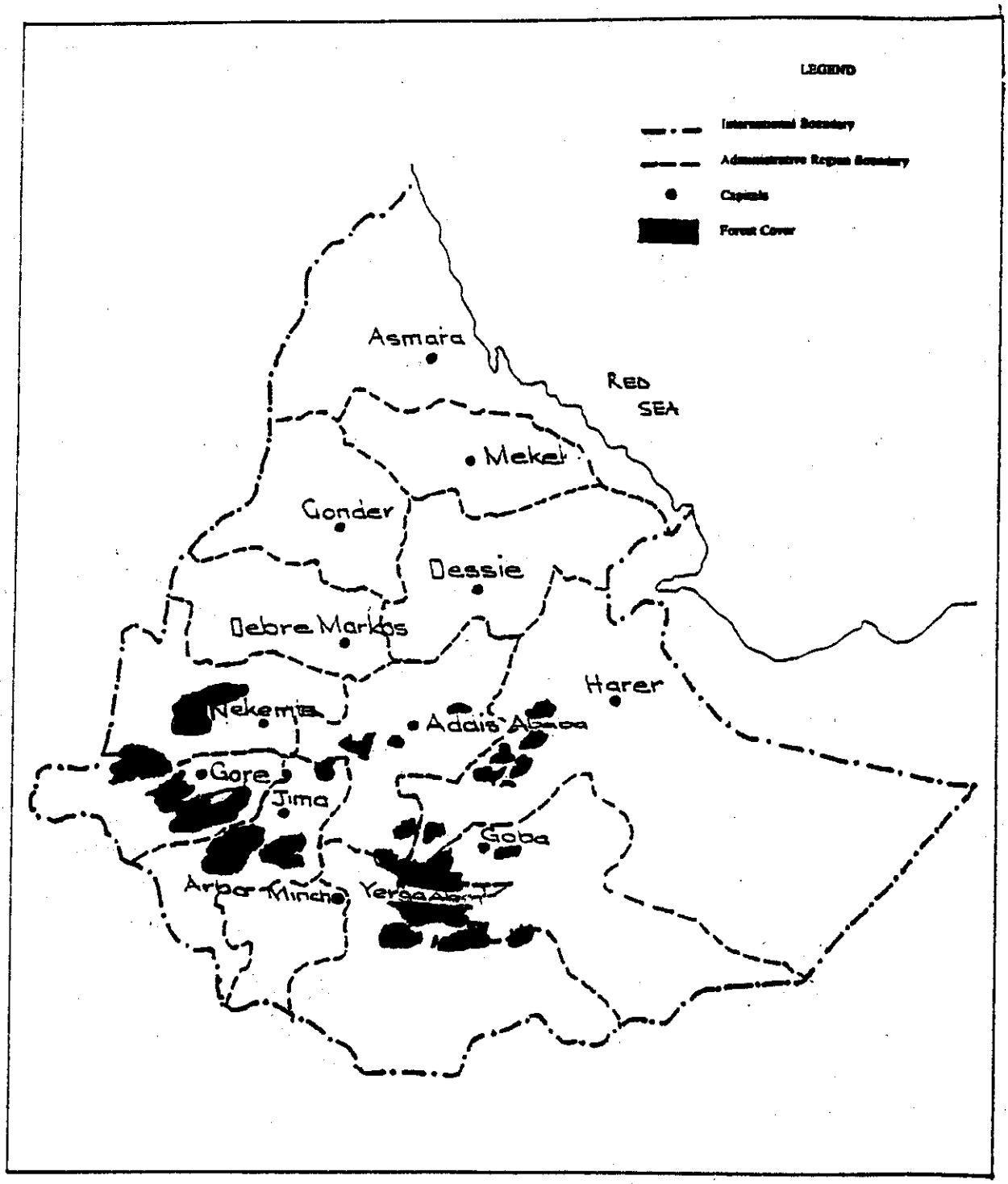
Annex 1

Figure I : POPULATION DISTRIBUTION IN KENYA



Source: Kenya national paper for the sixth session of the Commission on Human Settlements. 1983

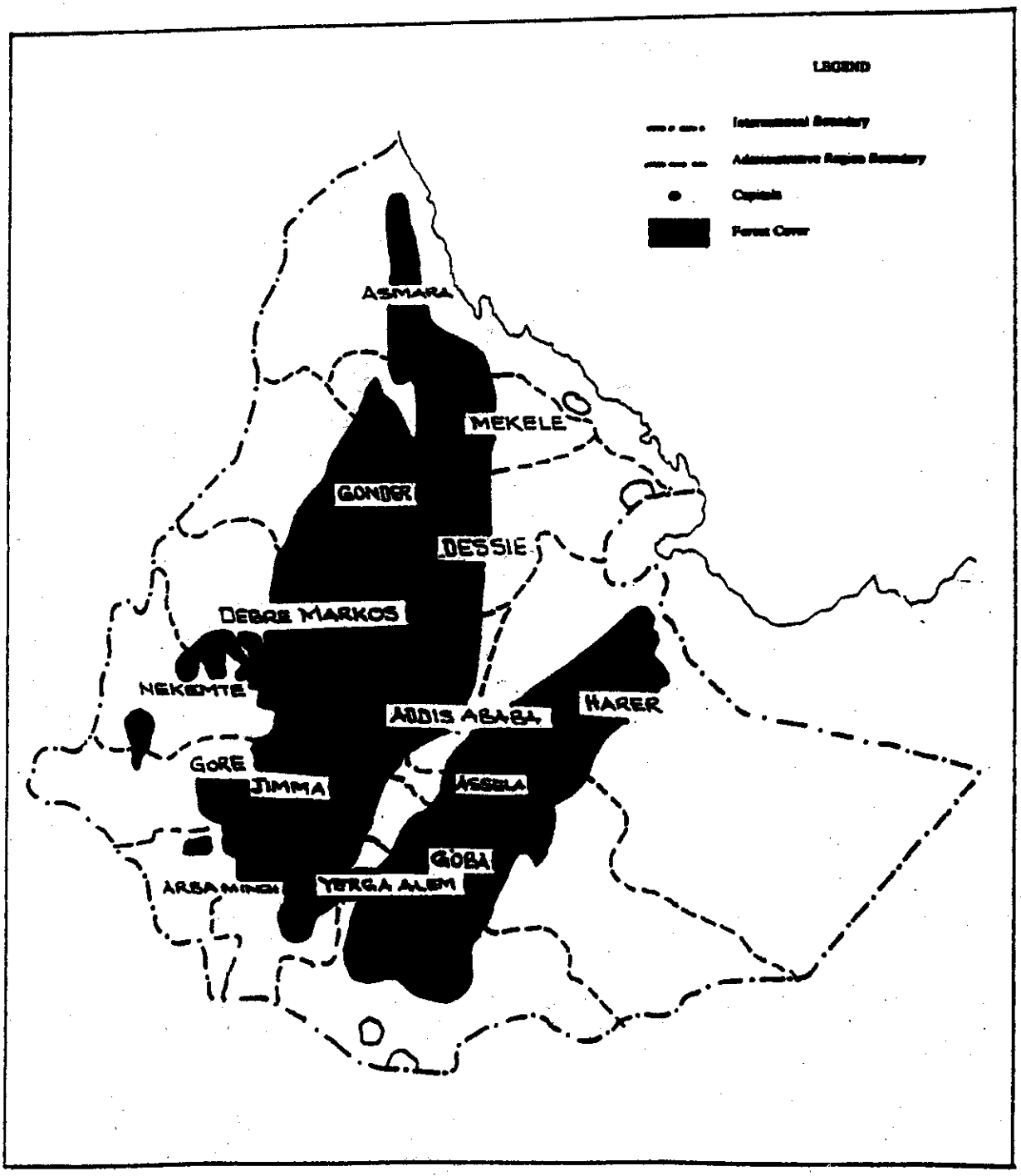
Figure II : PRESENT FOREST COVER OF ETHIOPIA



Source: Relief and Rehabilitation Commission, Combatting the Effects of Cyclical Drought in Ethiopia (Addis Ababa : 1985), p.17.

Annex 3

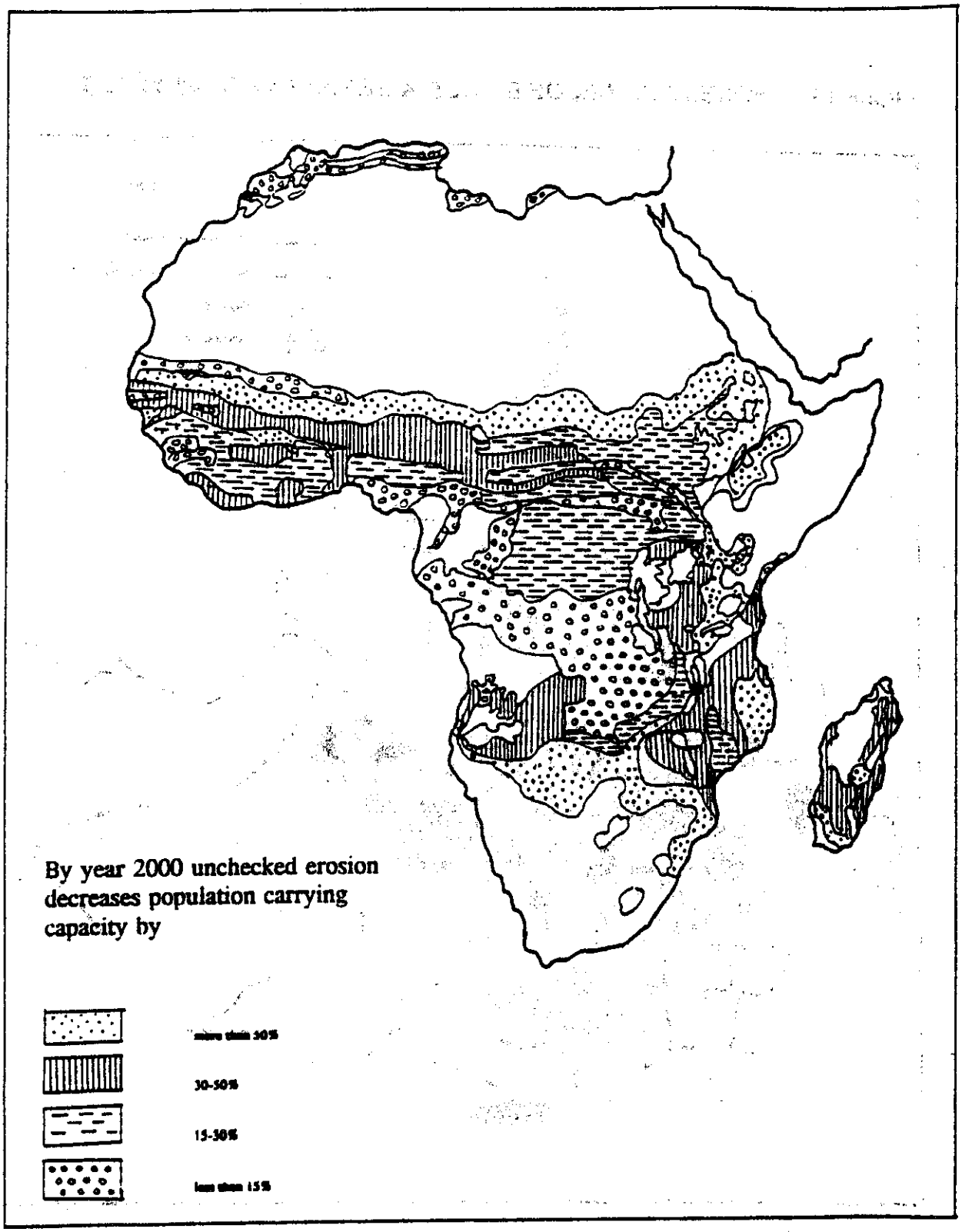
Figure III : FOREST COVER OF ETHIOPIA BEFORE 60 TO 80 YEARS



Source: Relief and Rehabilitation Commission, Combating the Effects of Cyclical Drought in Ethiopia (Addis Ababa : 1985), p.16.

Annex 4

Figure IV : EFFECT OF SOIL EROSION ON POPULATION CARRYING CAPACITY



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