



Distr. Limited
E/ECA/PSPI.9/6
11 January 1996

ENGLISH
Original: English

UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

ECONOMIC COMMISSION FOR AFRICA

**Ninth Session of the Conference of
African Planners, Statisticians, Population
and Information Specialists**

**Addis Ababa, Ethiopia
11-16 March 1996**

**AN ASSESSMENT OF URBAN ENVIRONMENTAL PROBLEMS AND POLICIES
IN SELECTED ECA MEMBER STATES**

INTRODUCTION

1. The growth of urbanization has had profound consequences on the economies of African countries and the lives of city dwellers. The expansion of, in particular, the larger cities, has resulted in a number of problems, such as, substandard, inadequate and unreliable infrastructure and services. Studies have shown that a growing number of urban dwellers have limited access to acceptable and/or adequate housing, transportation, water supply, health and education in countries like Burkina Faso, Ethiopia, Sierra Leone and Somalia. 1/ In this connection, the inadequacy and substandard nature of urban housing has spawned squatter settlements and slums.

2. Other consequences include, an increase in poverty, unemployment and underemployment in cities, the rapid growth in urbanization largely unaccompanied by commensurate growth in industrialization, the weak links between urban and rural economies, and past urban bias policies pursued by governments contributing to regional inequality. The economic crisis beginning from the mid 1970s combined with high population growth have exacerbated the above and other problems of cities like congestion and costlier provision of infrastructure and services for larger and spatially dispersed urban populations.

3. On the positive side, it must be mentioned that the growth of urbanization has also conferred benefits to firms and private individuals from locational advantages and agglomerations of industrial and commercial activities.

4. This paper on urban environmental problems and policies is structured around three main sections. The first section describes

1/ Jorge E. Hardoy, D. Mitlin and D. Satterthwaite, Environmental Problems in Third World Cities (London: Earthscan, 1992); and Toma J. Makannah, "Aspects of the Environmental Problems of Cities in Sub-Saharan Africa". In Union of African Population Studies, Papers, Conference on Population and Environment in Africa, Gaborone, Botswana, 1992, pp.231-242

the environmental and urbanization setting. The second reviews urban environmental problems; while the third section examines urban policies, with particular reference to those addressing institutional and managerial issues as well as stemming urban population growth.

ENVIRONMENTAL AND URBANIZATION SETTINGS

5. The development crisis of Africa has been portrayed as consisting of three components: agricultural stagnation, population explosion and environmental degradation.^{2/}

6. In this context, the major environmental problems facing African countries include environmental degradation, depletion of natural resources and substandard and deteriorating infrastructure and social amenities (e.g. housing, water, sanitation, health and education).^{3/} These environmental problems are exacerbated by a number of factors like rapid population growth, poverty, uneven spatial distribution of the population, destruction of protective vegetative strip alongside water bodies and urban centres, extensive firewood foraging, land dereliction through mineral exploitation, rapid and essentially unplanned urbanization, inadequate and/or lax enforcement of environmental and occupational health legislations and the economic crisis.

7. In the Sahel, for instance, the recurrent occurrence of environmental degradation and depletion of terrestrial ecosystem from desertification and drought, has led to the loss of millions of acres of agricultural land.

8. Similarly, in Zimbabwe a pronounced imbalance exists between population trends and the natural resource base, albeit, aggravated

2/ Robert S. McNamara, "Africa's development crisis: Agricultural stagnation, population explosion and environmental degradation". Washington, D.C.: Global Coalition for Africa, 1991

3/ Sam Moyo et alia, The Southern African Environment (London: Earthscan Publications, 1993)

by the imprint of European colonialization. Land holdings in communal lands are distinguished by over-cultivation, overgrazing, deforestation and destruction of woodland by man, (and also by soil loss and siltation).

9. In Malawi, the major environmental problem is population pressure on land, aggravated by the dominance of agriculture in the economy, around 30-40 percent of GDP. Environmental degradation, in particular, land degradation is one major consequence.

10. Environmental deterioration in urban areas, the drought-prone soils of the south along with the coastal ecosystem are among the principal environmental problems of Namibia.

11. In Sierra Leone, the major environmental problems are environmental deterioration of urban areas, deforestation arising from the intensive use of the shifting cultivation method as well as land dereliction through bauxite, rutile and alluvial diamond mining.

12. Environmental problems that compromise Ghana's development efforts vary from those associated with natural disasters, e.g., drought, famine, floods and pests, through unsustainable land use practices resulting in land degradation (deforestation, desertification and soil erosion), rural poverty and population pressure on resources pressure.

13. Nigeria's major environmental problems range from drought, land degradation, deforestation and desertification, to rural population pressure on resources and urban environmental degradation.

14. The economic crisis beginning from the mid 1970s has dovetailed with high population growth as well as poverty in exacerbating the aforementioned problems. Relative to the provision of infrastructure and social amenities, the crisis in the social sector has resulted in underemphasis in national and international development programmes and assistance destined to e.g. health, family planning, housing and education.

15. With regard to urbanization, among the salient features are the low levels of urbanization and the high rates of urban (as well

as total) population growth. By 1995 the level of urbanization was 34.4 percent. Among world's major regions, Africa's level of urbanization is only comparable to those of South-central and South-eastern Asia, 28.8 and 33.7 percent respectively in 1995.^{4/}

16. With respect to urban population growth, the current rate i.e., during 1990-95 is around 4.38 percent per annum, compared with 3.43 percent for South-central Asia and 3.97 percent and South-eastern Asia, the other two high urban growth regions.^{5/}

18. Of the two components of urban growth, natural increase (i.e. the difference between births and deaths) and migration including the reclassification of localities, migration (i.e., urban-urban and especially rural-urban inflows) has been shown to be the most important component in the 1960s and 1970s in most countries. However since the 1980s natural increase has been making a growing contribution especially to the expansion of older and bigger cities.

17. The number of cities with population sizes of 250,000 and above in Africa increased from 57 in 1970 to 121 in 1990 and to 179 in 2010, with the fastest increase projected to occur in the size classes under 1 million. The number of cities with population sizes of 1 million increased almost five-fold between 1970 and 1990. Between 1990 and 2010 the number is projected to almost double, from 38 to 73. In order to more clearly understand the growth of urban localities, subregional developments are provided below.

18. Due to the early development of urbanization on the African coastline bordering the Mediterranean, the North African sub-region has experienced the highest growth of urban localities, especially of the larger cities, in Africa. The period between 1970 and 1990, for instance, witnessed remarkable expansion in urbanization, with the number of cities with population sizes of 1

4/ United Nations, World Urbanisation Prospects: The 1994 Revision, New York: 1995

5/ Idem

million and above doubling from 4 in 1970 to 8 in 1990. The cities include, Algiers, Alexandria, Cairo, Casablanca, Khartoum, Rabat, Tripoli and Tunis. Cairo with an estimated population of about 9.4 million in 1994 maintained its position as Africa's most populous city.

19. Urban growth in the West African sub-region was rapid within the period 1970 to 1990, with the number of cities with population sizes of 250,000 and above increasing from 13 in 1970 to 36 in 1990. The growth of bigger cities, that is, those with population sizes of 1 million and above during the period 1970 to 1990 was spectacular, from 1 in 1970 to 12 in 1990. Quite a few of the growth of these bigger cities occurred in Nigeria and involved localities such as Ibadan, Jos, Kaduna and above all Lagos. The other cities that grew over 1 million during this period are the capitals of some West Africa countries - Abidjan (Cote d'Ivoire), Accra (Ghana), Conakry (Guinea) and Dakar (Senegal).

20. Addis Ababa, Nairobi, Dar es Salaam and Harare dictate the pace of urban development in the Eastern subregion. For example, they were the first set of millionaire cities that emerged in the 1980s in the sub-region. Other sizeable localities include Lusaka (Zambia) and Kampala (Uganda).

21. By 1970, Kinshasa was the only urban locality in the Central African subregion with a population size of 1 million and above. By 1990, it had an estimated population of 3.5 million, by far the largest in the sub-region. Kananga (Zaire), Luanda (Angola), Maputo (Mozambique) and Yaounde and Douala (Cameroon) have also been emerging among the dominant urban localities in the sub-region.

22. In Southern Africa two cities in South Africa, Johannesburg and Cape Town, have maintained the lead as the two most populous, with estimated populations of 1.6 and 1.9 million in 1985 respectively. In addition there are about 8 more cities with moderate population sizes, that is, 100,000 and above. The most important, Durban, Pretoria and Port Elizabeth had population sizes of 980, 820 and 650 thousand respectively in 1985. Given the small

sizes of the total populations of the other countries of the Southern Africa subregion (Botswana, Lesotho, Swaziland and Namibia) no large urban localities have developed in them yet.

23. The urban population of Africa is projected to experience remarkable increase within the next few decades, in view of in-built momentum of high population growth, a result of high fertility and high but declining mortality. From an estimated population of 217 million in 1990, the urban population is expected to reach 544 million in 2010 (table 3). By 2020 the urban population is projected to increase to 783 million, an almost fourfold increase from 1990. By 2020 half of the population of Africa, about 54 percent, would be living in urban areas.

24. At the city level, dramatic increases in mega-cities are also expected, with Cairo/Giza and Lagos in the forefront, whose population sizes would surpass the 10 million mark by the turn of the century. During this period, Alexandria and Kinshasa would also have population sizes of around 5 million. Other cities projected to have very large populations in the next few decades include, Casablanca, Algiers, Abidjan and Tripoli.

25. These future expansion of the urban population and bigger cities is bound to aggravate urban problems reviewed about unless sensible urban policies are instituted now.

AN ASSESSMENT OF URBAN ENVIRONMENTAL PROBLEMS

26. The types of environmental problems at home, in the workplace and neighbourhood could be classified into the following six categories:^{6/}

- a. contaminated and inadequate quantities of water;
- b. inadequate provision for sanitary management and disposal of solid and liquid wastes;

^{6/} Hardoy et alia, *op. cit.*, chapters 2 and 3.

- c. inadequate measures to control disease vectors;
- d. poor quality and overcrowded housing;
- e. inadequate health services;
- f. inadequate (or lax) enforcement of environmental and occupational health legislations.

27. A brief review of some of the major categories of the problems follows.^{7/}

Contaminated and inadequate quantities of water

28. The quality, the quantity and availability of water have an impact on the health status of urban dwellers. In particular, the dearth of drinking water can exacerbate the occurrence, the spread and severity of water-related infectious diseases such as cholera, diarrhoeal diseases, skin and eye infection. In urban as well as rural areas, it is among the poor that these diseases are concentrated. Accordingly, an accessible and regular supply of potable water is indispensable for the wellbeing of households and central to the maintenance of good hygiene and sanitation.

29. Despite this link between health status and water, a significant proportion of African urban dwellers do not have access to clean and dependable sources of drinking water, as the following review of the situation in some countries indicate.

30. A 1991 sample survey of Greater Accra Metropolitan Area (GAMA) estimated that indoor piping and private standpipe accounted for 35 and 24.3 percent of drinking water, respectively; while water vending accounted for 28 percent. ^{8/} Of the three constituents of

^{7/} For more on this topic see items in the select bibliography and Hardoy, *et alia*, Environmental Problems in Third World Cities, *op.cit.*, chapter 2.

^{8/} G. Benneh, J. Songsore, J.S. Nabila, A.T. Amuzu, K.A. Tutu and Y. Yangyuoru, Environmental Problems and the Urban Environment in the Greater Accra Metropolitan Area (GAMA)-Ghana (Stockholm:

the GAMA- Accra, Tema and Ga- 20 percent of the dwellers of Ga, the poorest, obtained their drinking water from rainwater collection and open waterway.

31. A classification done according to household wealth indicated that 98 percent of wealthy households and 70 percent of medium wealth households had access to indoor piping, while only 26 percent of all poor households had such a facility, with about 33 percent relying on water vendor as the principal drinking water source. 2/

32. A 1980/1981 survey of Dakar and Pikine (Senegal) estimated that while 28 percent of households had private water connections, 68 percent relied on public standpipes and 4.2 percent on water vendors. In Pikine, a suburb of Dakar, an average of 696 persons used a standpipe, with 1513 in one neighbourhood.

33. In Dar-es-Salaam (Tanzania), a 1986/1987 survey of 660 households, encompassing all income groups, found that 47 percent had no piped water supply either inside or immediately outside their houses and 32 percent had a shared piped water supply.

34. From a 1981 household survey in Kampala (Uganda), it was estimated that many households did not have piped water close to their homes, and had to rely on springs, streams or wells, many polluted.

35. The available information from the 1985 population and housing census on urban and rural areas in Sierra Leone indicate that access to potable water supply is unsatisfactory, with the majority of Sierra Leoneans, 44 percent dependent on rivers and streams, most unprotected, for their drinking water. Water wells were the second most important source, with only 16 percent using piped water, with Freetown and the Western Rural Areas alone had the majority of their population using piped water, 88 percent and 53 percent respectively.

Stockholm Environment Institute, 1993)

2/ Idem

Inadequate provision for sanitary management and disposal of solid and liquid wastes

36. The regular removal and disposal of excreta and waste water are also essential ingredients of environmental health needs, as irregular collection and unmanagerial disposal of solid and liquid wastes have repercussion on human health and productivity. For example, uncollected refuse dumps, located in public areas, and those whose contents sip into water ways are foci for the spread of diseases. The lack of drains and servers for the disposal of waste water and rainwater can create waterlogged soils and stagnant pools which can be the source of diseases like hookworm and enteric diseases. These sites could also be breeding grounds for mosquitoes.

37. Most cities in Africa either lack sewerage systems or have systems that serve only a tiny proportion of the population. In the Accra (Ghana), an estimate in 1985 indicated that only about 30 percent of the population were connected to the central sewerage system. Human excrement and water are usually deposited in rivers, stream, canals, gullies and ditches.

38. In Dar-es-Salaam and Kampala surveys have documented how most of the households, used pit latrines, with several persons sharing each latrines. In Dar-es-Salaam, overflowin latrines are a serious problem, in particular in the rainy season.

40. Kinshasa (Zaire) has no sewerage system, while in Khartoum (Sudan), the municipal sewerage system serves only a 5 percent of the population.

39. In Ethiopia, sanitary, toilet facilities were, according to the 1984 populationand housing census, inadequate and/or very poor in urban areas, with half of the housing units having no such facilities. In Addis Ababa, the percentage of households without toilet facilities was 29 percent.

40. Relative to household garbage collection, the problem relates to inadequate or non-collection. Studies have shown that around 30

to 50 percent of solid wastes produced within urban areas are not collected.

41. In Accra (Ghana) in recent years, the Waste Management Department collects about two thirds of the waste generated, and existing disposal sites are already over used. Only 10 percent of household have home-collection services. In Dar-es-Salaam (Tanzania) around 65 percent of solid wastes from both residential areas and from commercial enterprises are not collected. While in Kampala (Uganda), below 10 percent of the city's population benefits from a regular collection of household wastes and below 20 percent of the solid wastes produced within the city are collected.

42. In Kinshasa (Zaire) the collection of household waste is only undertaken in few residential areas. In the rest of the city, household waste is put out in the road, on illegal dumps or in storm-water drains or on open sites. While in Nairobi (Kenya), newly developed, residential estates and the informal settlements are not served by the city's garbage collection service.

Poor Quality and Overcrowded Housing

43. One predominant feature of the homes of the urban poor in Africa and other LDCs is crowded and damp conditions. It has been estimated that on the average, low income residential areas in Third World cities, house four or more persons per room, and often, there are less than one square metre of floor space per person. In these settings, characterized by frequency of contact and high density where infective and susceptible people mingle, the transmission of acute respiratory infections (eg. pneumonia and tuberculosis) and other air borne disease are highly likely.

44. As well, in this setting the transmission of diarrhoea is high in view of the linkages among inadequacy of water, sanitation, flies, animals, personal hygiene and food.

A REVIEW OF URBAN ENVIRONMENTAL POLICIES

45. As the determinants of urban environmental problems are diverse, policies to tackle them should encompass a number of dimensions- demographic, institutional, health, political and managerial, among others. In this paper attention is paid to three components: institutional, managerial and population policies.

Institutional and Management Policies

46. The administration of African cities and the provision of urban services and infrastructure are occurring in a difficult socio-economic environment, namely: rapid total and urban population growth alongside sluggish economic growth. The result, is that the pace and intensity of the urbanization process has exceeded management capacity, financial resources and information on the urbanization process itself.^{10/}

47. For example, between the late 1970s and the mid 1980s, the expenditure per capita of Nairobi dropped an average of around 2 percent in real terms. In neighbouring Tanzania's Dar es Salaam, between 1978 and 1987, organizations involved with the city's development decreased per capita expenditure by roughly 11 percent.

48. Against this background, the challenges confronting municipal authorities include the following: arresting environmental degradation, improving deteriorating services and infrastructure, enhancing the revenue base, undertaking training and raising the level of local expertise. In this connection the following suggestions have been put forward to assist in addressing aforementioned problems, namely: to forge a balance in the relationship between public and private sector initiatives, between local responsibility and central control, and between international

^{10/} Richard E. Stren and Rodney R. White (eds.) African Cities in Crisis (Boulder: Westview Press, 1989)

standards and indigenous requirements.^{11/} Each of these initiatives should pay greater attention to the needs of the poor and the wider community.

Forging a balance between public and private sector initiatives, along with local responsibility and central control

49. Two types of urban local government systems could be identified in African countries: a centralised system in French-speaking countries, and a combination of centralised and decentralised systems in English-speaking countries. ^{12/} Since independence the trend towards centralization has become pronounced even in the latter set of countries. This trend in centralization, coupled with urban administration straddling a number of jurisdictions, have exacerbated the poor functioning of urban local governments.

50. Just as in the case of urban local government, two types of structures could be identified with respect to urban local finance: the commune system in mainly French-speaking countries; and the representative government system in mainly English-speaking countries. The differences between the two structures are that under the former, municipal authorities administer fewer services and the councils are more closely supervised by the central governments compared with those in the latter. In spite of these differences, the financial situation in both- but especially the representative councils- started experiencing declines by the mid 1980s.

51. Broadly, the following reasons have been invoked to explain the poor functioning of municipal governments and their

^{11/} idem

^{12/} Richard E. Stren, "Urban local government in Africa"; and "The administration of Urban services"; in Richard E. Stren and Rodney White (eds.) African Cities in Crisis (Boulder, Colorado: Westview Press, 1989)

deteriorating financial situation: stifling centralization, declining and/or stagnant contribution by central governments to their budgets over the years; rapid population growth along with spatial expansion of cities; lax financial control and political interference in their running, especially in representative councils.

52. By the early 1970s national and international efforts have attempted to address the problems of urban environmental degradation and lack of access of infrastructure and social amenities by sizeable portions of urban dwellers, among other issues, through low-cost investment projects in shelter, water supply, sanitation and transport. The objectives of, for example, projects on sites-and-services and slum-upgrading were twofold: to exhibit replicable approaches and to recover costs. While these projects succeeded in fulfilling their physical objectives, they failed in nurturing local and national institutions as well as bolstering policy changes. Moreover, in their planning, implementation, monitoring and evaluation, private and community initiatives were rarely mobilised.

53. As a result of this poor record, another approach is being advocated, namely: focussing on institution building. It is proposed that the focus of thinking about and planning for cities should shift from central government control and the international realm to local personnel and institutions concerned with urban issues who should be given a greater say in decision-making and policy implementation. Towards this end, a balance between public and private sector initiatives, along with local responsibility and central control should be forged.

54. In this connection, the Programme of Action of the International Conference on Population and Development urge Governments to create an enabling context for local development, including the provision of services by considering decentralizing their administrative systems. Giving responsibility for expenditure and the right to raise revenue to regional, district and local

authorities were identified as integral components of this strategy.^{13/}

Forging a balance between international standards and indigenous requirements

55. With reference to international standards and indigenous requirements, municipal authorities and national governments have found it difficult to introduce or expand services and infrastructure for poorer urban households and neighbourhoods using technologies based on European or North American standards because of their high costs and the requirement of a sophisticated management to efficiently maintain them. It has, therefore, been suggested that African and other Third World municipal and city governments should experiment with alternative, cheaper systems which also meet environmental standards.^{14/}

56. With respect to sewers and treatment plants, the strategy adopted in the past by African municipal authorities and national governments focussed on improving the conventional technologies for the collection, transportation and disposal of solid wastes. This approach concentrated on two initiatives: higher technology and privatization. Recently, a planning strategy which also promotes non-conventional technologies, recycling and local participation has been advocated.^{15/}

^{13/} United Nations, Population and Development: Programme of Action adopted at ICPD, Cairo, 5-13 September 1994, Vol.1SST/ESA/SER.A/149, para.9.4

^{14/} Hardoy et alia, Environmental problems in Third World Cities, Chapter 5.

^{15/} C. Furedy, "Urban wastes and Sustainable Development, A Comment on the Brundtland Report", in N. Polunin and R. Burnett (editors) Maintenance of the Biosphere (Edinburgh: Edinburgh University Press, 1990), pp. 213-218

57. For example, the following alternative sewer systems suitable for poor urban households have been developed and tested: shallow sewer, small bore sewer schemes and ventilated latrines. These alternatives, research have shown, are much cheaper than conventional structures and are improvements in terms of hygiene and efficiency over pit and bucket latrines or defecating in open spaces.

58. Relative to improvements in the quality and availability of water, low cost alternatives are also available for poorer city households and neighbourhoods. One example is the installation of a piped-water system that could satisfy similar needs to those that used to be catered for by water vendors at the same or lower cost, but for a larger, safer and more convenient supply. Alternatively, a scheme could be introduced to make water vendors more efficient and their operations more efficient in situations where the financial cost of extending piped-water systems to poorer areas is exorbitant.

59. A third option available which in the past has been applied to rural areas is to construct protected communal wells in peripheral urban neighbourhoods that depend on rivers, streams and unprotected private wells for their water supply.

60. In the area of waste collection and management, in order to match waste management and local needs account should be taken of a number of factors such as the magnitude and types of waste generated; the ability of the residents in various low income neighbourhoods to pay for the services for collecting their wastes; the potentials for recycling; types of vehicles to use; traffic condition and available of land sites for refuse, among others.

61. In this connection, experience from Third World cities, including Cairo, have shown how the recovery, recycling or re-use of materials from city refuse are a source of employment and income for a sizeable number of poor city dwellers.

62. In making a decision on what low cost alternatives to adopt, it is necessary to review the local situation and make an

evaluation of the options that are suitable to the particular low income household and neighbourhood.

Population Policies

63. On the demographic front, policies addressed to decreasing the rapid growth of cities must feature among urban environmental policies. Such policies should focus on the two sources of urban population growth - migration and natural increase. As noted earlier, of the two components of urban growth, natural increase (i.e. the difference between births and deaths) and migration (including the reclassification of localities, migration (i.e., urban-urban and especially rural-urban inflows) has been shown to be the most important component in the 1960s and 1970s in most countries. However since the 1980s natural increase has been making a growing contribution especially to the expansion of older and bigger cities.

64. Urban migration policies that have been experimented with in the past by African governments include:

- restriction of migration to metropolitan centres by persuasive (and sometimes coercive) methods;
- slowing rural outmigration by improving the socio-economic situation of rural dwellers, e.g. through:
 - rural development programmes;
 - closing the rural-urban income gap.
- redirecting outmigration from the rural areas to unsettled or frontier areas, growth poles, alternative cities of immediate size or by the development of new towns.

65. A review of these policies follow.

a) Restriction of migration to metropolitan centres by persuasive and sometime coercive measures

66. A number of measures have been utilized by African governments to control the number of migrants in rapidly expanding cities. These include the demolition of squatter and slum settlements (eg. in Lagos, Nigeria); the harassment of migrants by the passing of various repressive laws (e.g. the pre-independent South African Government's internal passport system geared towards the restriction of Blacks into the cities.)

67. In the 1970s, the governments of Kenya and Tanzania instituted urban barriers to migration. In Kenya, they consisted of a housing regulation which specifically barred the shanties of newly arrived migrants; while in Tanzania, it was a legislation that required urban workers to possess official identity cards which attest to their employment status. In spite of their bureaucratic costs and questions about their ethics, these and other measures did not lead to the stemming of urbanward migration.

68. In this connection, it has been argued that rather than use coercive measures, African governments should experiment with the introduction of incentives that influence mobility along with providing would-be migrants with information and services that would assist them in making more rational decision pertaining to movements to cities. This is because it has been found that urban migrants perceive that movements to towns confer benefits - eg. better schools, hospitals and prospects to earn higher incomes - for the migrant or members of his or her family. Therefore, migrants are willing to endure inconveniences such as spells of unemployment or living in overcrowded housing with the hope of partaking in the above-mentioned benefits.

Slowing rural out-migration by improving the socio-economic situation in rural areas

69. Past studies on migration in African have underlined the importance of enhancing the rural environment by the improvement of socio-economic infrastructure and amenities and by improving the income position through the creation of jobs. As well, governments have been urged to introduce programmes and strategies to close the rural-urban income gap, a result of their past urban bias policies.

70. A favourite strategy in this connection was the introduction of integrated rural development programmes. Among the reasons, African governments have given for rural development programmes is the reduction of rural-to-urban migration. Studies have identified the following factors for the failure of these programmes in a number of countries to achieve this objective: capital intensive integrated rural development programmes (IRDPs) benefiting mainly rich farmers; flaws in their design and implementation; and producing both intended and unintended migration consequences.

71. Minimum wage legislation and payment of attractive agricultural producer prices have been other strategies that have been used unsuccessfully to slow down rural-out-migration.

Redirection of migration

72. Another set of strategies that have been employed to reduce migration pressure on the bigger cities in Africa are the redirection of migration from rural areas, away from the big localities, towards unsettled or frontier areas, growth poles, and alternative cities of intermediate size, along with the development of new capitals.

73. Three recent examples of the development of new capitals are the re-locations of capital cities: from Lagos to Abuja in Nigeria; from Abidjan to Yamassoukro in Cote d'Ivoire; from Dar es Salaam to Dodoma in Tanzania. These projects are taking a long time to

achieve most of their objectives, even in the case of Nigeria, which had the benefit oil revenue at the start of the project.

Family planning and birth spacing

74. Against the finding that natural increase is making a significant contribution towards recent population growth of urban localities, especially older cities like Lagos, Abidjan, Addis Ababa and Nairobi, it has been suggested that family planning and birth spacing programmes should be included in comprehensive population policies for African cities.

CONCLUSIONS

75. The challenge facing administrators of African cities from now to the next century are manifold. They include arresting environmental degradation, improving deteriorating services and infrastructure, enhancing the revenue base, undertaking training to raise local expertise.

76. Policies to address the problems of urban environmental degradation should take into account the following factors, namely: the rapid pace and intensity of the urbanization process; sluggish economic growth; urban administration straddling a number of jurisdictions (e.g. political and economical); and, weak managerial structures. The growing severity of these problems argue for a fresh approach to urban environmental issues.

77. One ingredient of this new approach consists of a shift in the focus of thinking about and planning for cities from centralization to decentralization, by giving local personnel and institutions concerned with urban issues a greater say in decision making and policy implementation.

78. A second ingredient of the approach is to urge African municipal authorities to assess the uses of non-conventional as opposed to high technologies based on European and North American standards in providing low income households and neighbourhood with

e.g. safe drinking water, along with sanitary garbage collection and disposal.

79. A third ingredient is the generation of more information on the environmental profiles of African cities to facilitate rational and efficient formulation, implementation, monitoring and evaluation of urban programmes, plans and policies. One way by which this objective could be fulfilled is by the fuller exploitation of existing data sources than had been the practice in the past, by the processing, tabulation and publication of data from population censuses and administrative records. Gaps in data could be filled in by the uses of demographic sample surveys and rapid assessment.

80. A fourth ingredient pertaining to slowing metropolitan growth addressed to urban planners exhorts them to concentrate on both migration and natural increase in designing population, programmes, plans and policies on cities. With respect to the contribution of natural increase to the growth of cities, in particular older ones, the role of family planning and birth spacing programmes deserves more attention than has been in the past.

SELECT BIBLIOGRAPHY

- Adepoju, A., (1986) Population and the planning of large cities in Africa. Paper presented to the International Conference on Population and the Urban Future, Barcelona, Spain, May 1986
- Adewuyi, A.A., and Feyisetan, B.J., (1985) Correlates of infant mortality: empirical evidence from Ile-Ife. 169p. Research report submitted to IDRC no. 3-P-81-
- Antoine, P., and Herry, C., (1984) A mortalité infantile et juvénile à Abidjan (1978-1979). Cahiers de l'ORSTOM - Série Sciences Humaines, 20(2), 141-155
- Bradley, D. et al. (1991) A Review of Environmental Health Impacts in Developing Country Cities, Urban Management Program Discussion Paper No 6, World Bank-UNDP-UNCHS (Habitat).
- Briscoe, John, (1987) A Role for Water Supply and Sanitation in the Child Survival Revolution. Bulletin of the Pan American Health Organization 21 (2):92-105.
- Brown, L.R. and J.L. Jacobson, (1987) The Future of Urbanization: Facing the Ecological and Economic Constraints, Worldwatch Paper No. 77 Washington D.C.: World Watch Institute.
- Cairncross, Sandy and J. Cliff (1986) Water and Health in Mueda, Mozambique. Transactions of the Royal Society of Tropical Medicine and Hygiene. London.
- Economic Commission for Africa (ECA) (1989) Patterns, Causes and Consequences of Urbanization in African Countries. Addis Ababa
- Egunjobi, L. (1989) Perception of urban Environment problems: A Pilot summary centered on the city of Ibadan, Nigeria, African Urban Quarterly Vol. 2 Nos 1 and 2 January and May: 59-68.
- Esrey, Steven A., James B. Potash, Leslie Roberts, and Clive Shiff. (1991) Effects of Improved Water Supply and Sanitation on Ascariasis, Diarrhoea, Dracunculiasis, Hookworm Infection, Schistosomiasis and Trachoma. Bulletin of the World Health Organization 69 (5):609-21.
- Gesler, W.M.; and Webb, J.L. (1983) Patterns of mortality in Freetown, Sierra Leone. Singapore Journal of Tropical Geography. 4(2):99-118.
- Guingnido, G.K., (1991) Croissance urbaine et population au Benin. Programme de Petites Subventions Pour Recherche en Population Développement et les Politiques Urbain. Communication, No.4. Dakar: CODESIRA

Harpham, T. Vaughan P and Lusty T. eds. (1988) In the Shadow of the City: Community Health and the Urban Poor. Oxford: Oxford University Press.

Kelley, A. (1991) African urbanization and city growth. Paper presented to the International Conference on Development and Rapid Population Growth: A New Look to the Future. Paris, September 1991

Onibokun, A., (1989) Urban growth and urban management in Nigeria. In Stren, R.E. and R.R.White (eds.)

Stren, R.E., (1991) Helping African cities, Journal of Public Administration and Development, Vol.11, no.:3, May

Stren, R.E., and R.R.White (eds.), (1989) African Cities in Crisis: Managing Rapid Urban Growth. Boulder: Westview Press

UNFPA, (1991). Population, Resources and the Environment: The Critical Challenges. New York

White, R.R., (1983) Third World urbanization and environmental crisis, Environment and Planning A15, No. 12: 1567-1569.

White, R.R., (1989) The Influence of environmental and economic factors on the urban Crisis. In Stren, R.E. and R.R White (eds.):1-19.

FIGURE 1

AVERAGE ANNUAL GROWTH OF URBAN POP. 1990-95

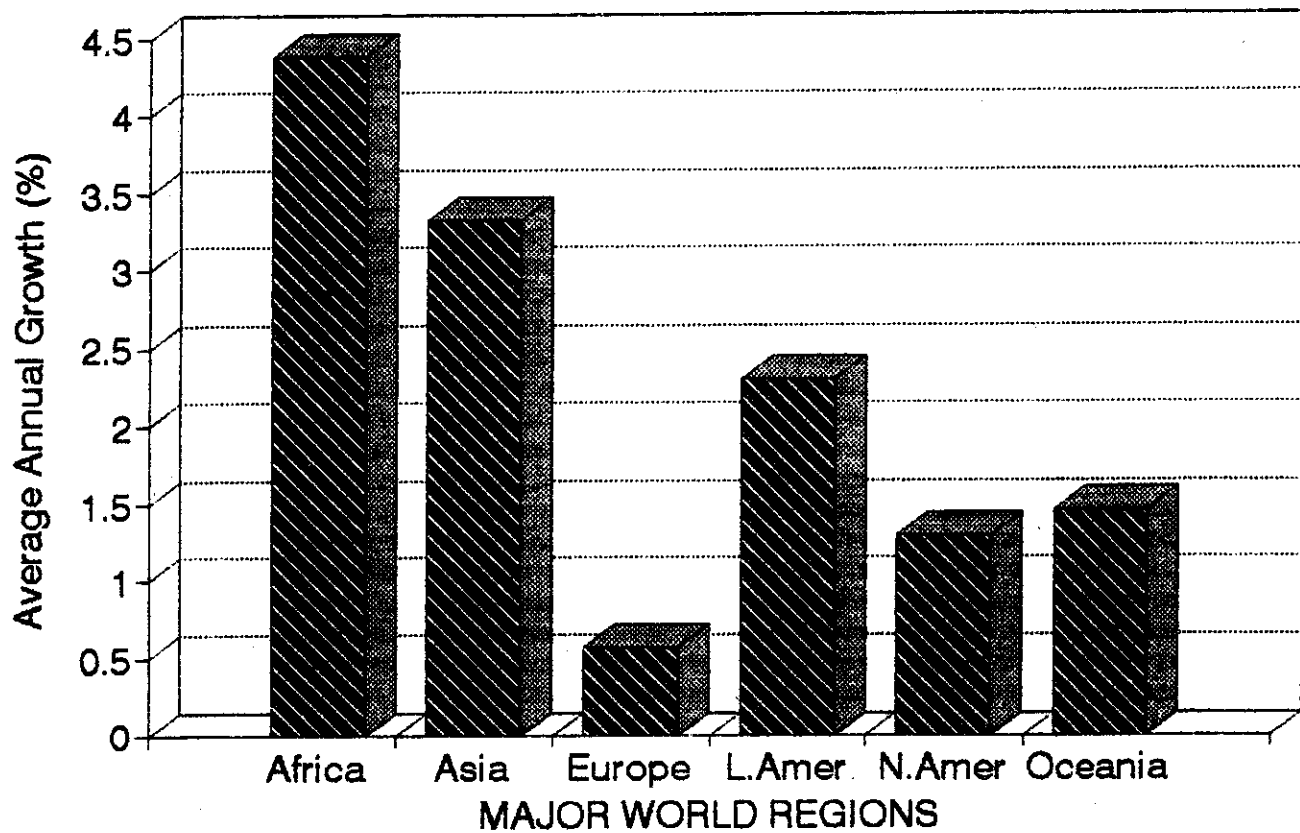


FIGURE 2

AVERAGE ANNUAL GROWTH OF URBAN POP. 1990-95

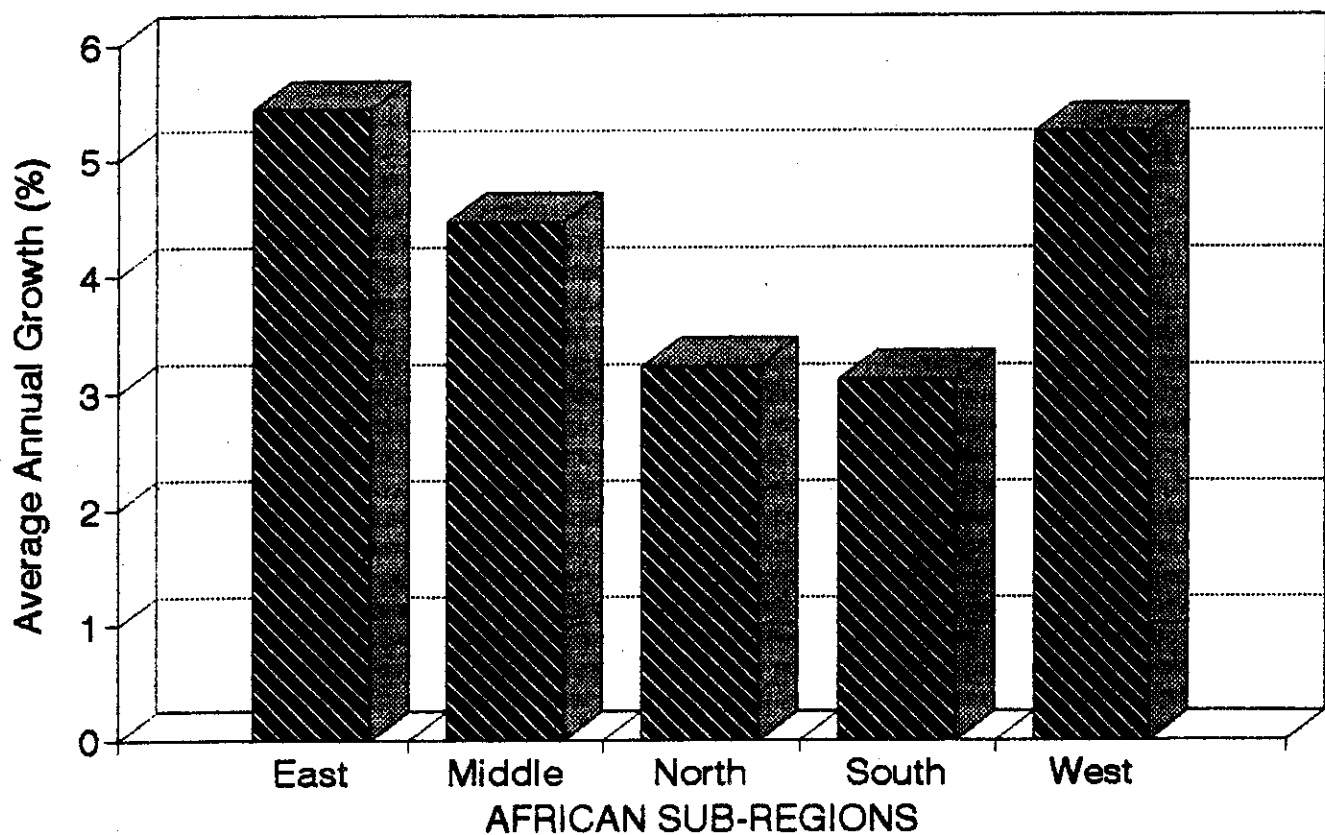


FIGURE 3

PERCENT OF URBAN POPULATION, 1995

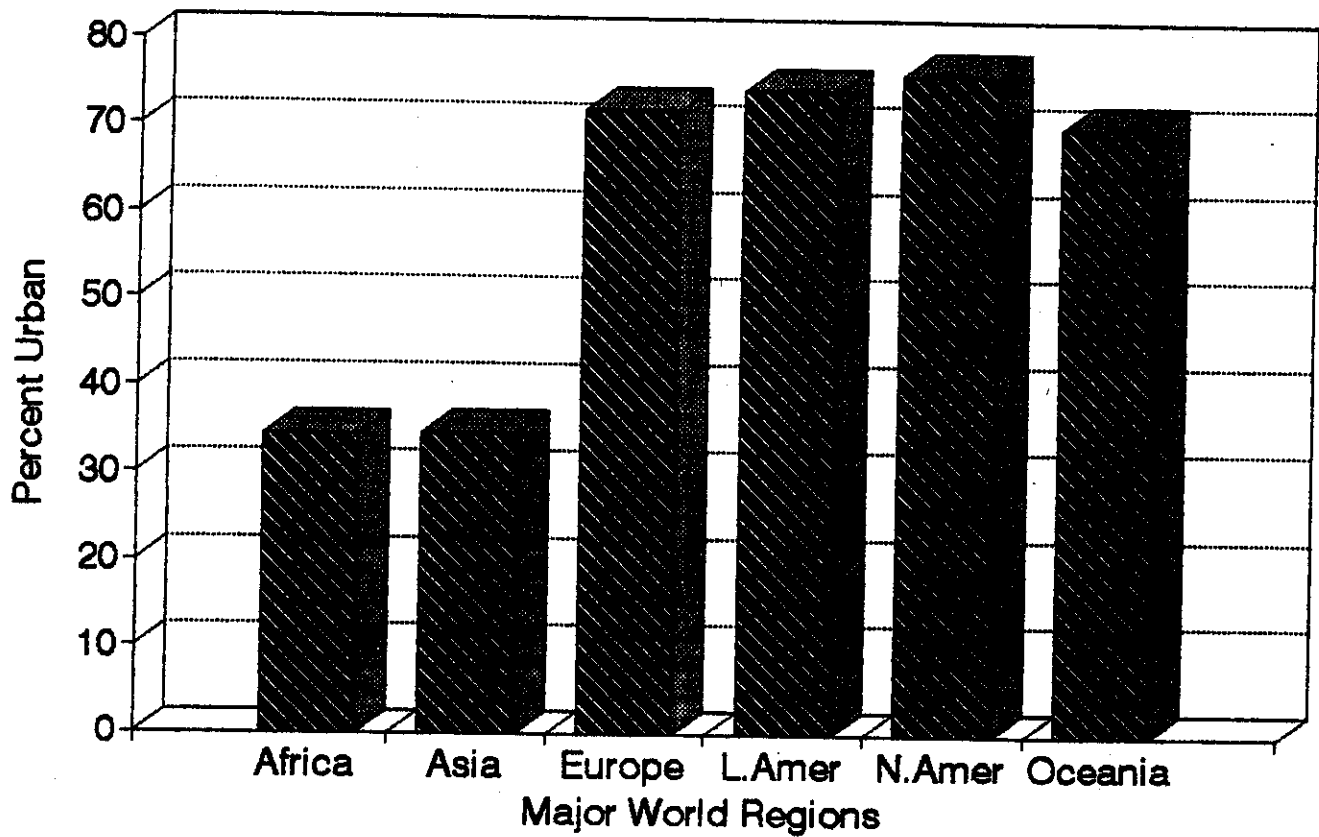


FIGURE 4

PERCENT OF URBAN POPULATION, 1995

