Editorial

Resources and Development in Africa

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In 1978, the International Geographical Union will hold its Regional Conference in Nigeria. In cooperation with Nigeria’s National Committee on Geography, the conference will focus on the theme, Resources and Development in Africa. It is appropriate that papers related to this theme should appear as a special issue of GeoJournal commemorating the IGU conference. Both the conference and the papers included here reflect the academic and technical maturity that scholars world-wide are bringing to the problems of African development of natural and human resources with a view toward the long-term ecological consequences of today’s decisions. In studies of the African environment 1), as well as scholarly conferences, the increasing impact of man’s activities in Africa has received considerable, but as yet insufficient attention. By mentioning but a few among the many issues of resource development in Africa, we may suggest some themes which lend unity to the papers which follow.

Two major themes are developed in this special-topic number. In the first, the role of formal models and planning in the African setting is explored. The first four papers are most closely related to this issue, including, respectively, urban models and planning; water resource management; development of transportation infrastructure; and model versus reality in regional planning. The second theme, resource management, is best represented by the last three papers, all of which parallel world-wide concern with “environmental impacts” of development activities. The specific topics addressed are land use malpractice, energy resource development, and the viability of alien agricultural technologies in tropical forest environments. Nevertheless, the role of scientific research and a concern with the quality of man’s environment is a theme common to all papers, as well as to the IGU conference itself. Both issues can be usefully viewed with two broad questions in mind: first, what is the role of universal or global models and approaches to the diagnosis and prescription of remedies for African environmental and development problems; and second, how must these approaches, if useful, be modified in the context of contemporary African reality? In examining the themes of planning and resource management, we are encouraged that while Africa may benefit from world-wide scientific expertise, significant contributions to her own as well as global dilemmas are indicated by papers such as those included here.

Effective planning is predicated upon scientific analysis and the building of models which allow both research scientist and planner to explore the consequences of policy alternatives. This basic strategy toward management of resources is well illustrated in Bola Ayeni’s work on modelling African urban environments (p. 393). Drawing upon urban systems models developed for distinctly Western settings, Ayeni is able to demonstrate the validity and utility of these models

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in Nigerian city planning. The land use planner might question application of traditional urban planning tools in African cities, where many of the processes of urban development appear different from Western settings. Yet Ayeni shows that certain classes of entropy-maximizing or maximum likelihood models can capture some commonalities of all cities, those of residence and workplace location and of the journeys generated between them. The Nigerian Federal Capital Territory has been delineated, and basic ecological studies completed prior to site planning for movement of the capital from Lagos to a central location north of the Niger-Benue confluence. Ayeni applies urban systems models to forecast the outcome of relocation of federal government activities, suggesting that this palliative for urban problems in Lagos will be insufficient. Clearly, urban system models will enhance the ability of Nigerian planners to design effectively the future of their urban centers.

One of the cliches of tropical African geography are vast water resources awaiting development. Certainly the Sahelian situation sobered our assessments of the region's arid margins. Similarly, much is to be learned about African hydrology. Unanticipated low levels of water in Nigeria's Kainji Dam in 1977/78 have had widespread consequences as electric power production from the Niger was curtailed. Lekan Oyebande presents an equally important lesson in his paper on urban water supply in Nigeria (p. 403). Even in areas of plentiful resource supply, the organization and mobilization of these resources present a major planning challenge. Arguing that less than one percent of Nigeria's water resources are developed for human use, acute water shortages in urban areas are traced to infrastructural and financial inadequacies rather than resource scarcity. Drawing upon world-wide water planning experience, Oyebande suggests that metering or other means for recovering the marginal costs of water supply could increase the fiscal resources for more effective resource exploitation. Nevertheless, pricing policy will have greatest impact on lower income levels, and truly effective pricing may threaten government commitment to water supplies as a fundamental welfare service.

Another geographical cliche is that interaction increases with proximity. Measuring distance in monetary terms, patterns of trade within developing countries and between these nations and world markets could be enhanced by transportation systems that decrease the cost, and thus the friction, of distance. Multimodal transport operations (MTO) may be a means for organizational, if not technical efficiency improvements, by placing the total source-to-destination shipment into one organizational system. M. O. Filani, drawing upon Organization of African Unity experience, examines the potential impediments to and impacts of MTO in Africa (p. 413). While the impact of global transportation developments may be positive in increasing Africa's accessibility, recognition must be given to those political, financial, and infrastructural problems that Africa shares with other developing areas.