

M.A. Mohamed Salid (ed), Local Environmental Change and Society in Africa, 2nd Edition, Kluwer Academic Publishers, Boston, 2001, pp220. ISBN: 1-4020-0046-4

Since time immemorial the environment has been quite central in the sustenance of human lives. The environment has influenced human lives. Whereas the environment has affected human livelihoods humankind's activities have also modified the environment. This interface needs to be understood because it has implications on both human lives and the environment. This book is an effort in that direction. Drawing on micro-studies from 4 African countries (Ethiopia, Kenya, Uganda and Swaziland) the case studies deal with the topical issue of how the environment and humankind influence each other.

The editor, M.A. Mohamed Salih, introduces the elements of environment that are covered by the authors. It covers various aspects of environmental change and its consequences on society. The case studies covered herein explain the relationship between social and environmental transformation and their consequences on the African conditions. The authors also sought to unravel the impact of environmental impairment on the economic and social conditions of society. Last but not least they sought to bring out local responses to environmental challenges. A blanket conclusion that can be derived from the seven case studies is that "little progress has been made in translating public concerns with the environment into effective tools for socio-economic or environmental sustainability" (p2).

In the introduction the editor introduces the contents of the book. He talks about the definition of environmental change adopted in the text, the interface between environment and society and the results of that interaction. Mohamed Salih also discusses the major sources of pressures on the environment that includes structural adjustment

programmes and marked population growth that is not matched by capital expansion and technological development. He also summaries the approaches, theoretical underpinnings and major findings of the researchers whose articles form this book

Samson Mwangi discusses the implications of irrigation development on the health of a given local society in Kenya in chapter 2. Mwangi wanted to find out if environmental and health safeguards are taken into consideration during the planning stage of a project. The chapter explains the health problems resultant from the development of irrigation schemes in Kenya. A major finding of this study is that “despite a world-wide accumulated knowledge of the diverse effects of irrigation on human health, Kenya has not taken serious policy interventions to incorporate corrective measures in designing, implementing and managing such projects in order to reverse the adverse environmental and health consequences of irrigation” (p18).Unfortunately there is no legislation that exists to enforce this.

Using Siaya District of Kenya as a case study Wilson Nyaoro used an interdisciplinary approach to examine thee environmental and socio-cultural factors that influence the development, choice and use of rural water supply systems. The author set out to find out the nature and extent of community participation in the various stages of the project cycle. To put the discussion into perspective Nyaoro examined the geography of the district, its disease environment, its demography, land use practices and the belief systems of the people. The study found that there was very little or no community participation in the conceptualization, planning, design, implementation, administration, maintenance and management of water supply projects. With the local people’s socio-cultural beliefs, water use practices and attitudes not integrated into the water planning process the result has been a lack of buy-in into the project by the community. In order to circumvent this problem the author recommends consultation with the intended beneficiaries from project planning through to management so that they have a sense of ownership and therefore responsibility to the water supply project. In other words the last should be put first.

Chapter 4 is devoted to analysing the extent of women's exploitation on the basis of social and sexual division of labour. The environmental impact of irrigated agriculture on their living conditions is examined as well. Gariyo traced the current constraints facing women back to the colonial period whose capitalist and patriarchal policies greatly disadvantaged women. Men acquired land, had paid jobs while women remained in the homes subsidizing capital. While women were productive they did not control income from the products of their labour. Gariyo has shown that in the post-colonial period women have tried to better their situation by engaging in agricultural production such as rice and cotton cultivation. Women's efforts at self-empowerment are constrained by resistance from powerful forces like patriarchy and lack of access to credit facilities. This is so not just in Eastern Uganda but in other parts of Africa as a whole.

From the use of land by women to improve their socio-economic status, the book proceeds to analyse agricultural land management for sustainable production. Paul S. Maro interrogated the relationship between land management (ownership and practices) and sustainable production using the case study of Swaziland. Among others Maro analysed the correlation between land tenure and management, land use and management, and livestock and range management. What he found was that the commonest land use management practices in Swaziland were maize cultivation and cattle raising. Like elsewhere in Africa communal ownership of land resources was found to be responsible for "the tragedy of the commons" phenomenon whereby care from the users is minimal. Failure to eke out sustainable livelihoods from the land has led to searches for opportunities in other pursuits.

In chapter 6, Henry Manyire analysed the effects of Price and Market Liberalization on Household Food Security. He adopted a comparative gender study of rural and urban Uganda. He set out to analyse the impact of price and market stabilization on rural and urban, male and female segments of society. What would happen to their productive and consumption patterns in the two settings and between the sexes? Manyire's findings are not quite divorced from what has been found elsewhere in Africa (Mlambo, 1994). He found that structural adjustment programmes had debilitating and differential

consequences on rural and urban Ugandan males and females. While the effects also weighed heavily on men, it can be argued that women bore the brunt due to their roles in the domestic economy.

...the liberalization of prices and markets enacted by the Uganda government has had varying effects on the household food security of the different categories of rural household agricultural producers, and the urban workers, and between males and females (p.155).

In chapter 7 Funna Peter analysed the nexus between structural adjustment, energy crisis and the environment in Uganda. Like the previous writer he also adopted a gendered approach looking at rural and urban households. Using a total of 134 respondents, rural and urban, men and women, the study revealed that 37.5 percent of the rural respondents had not received education while for the urban areas the percentage was also 37.5 percent. Education had a bearing on mobility to urban areas to seek wage-labour. With structural adjustment removal of subsidies on social services meant increases in the prices of major energy sources such as electricity and kerosene in urban areas and, firewood and charcoal in the rural areas. With SAP different classes of people in society resorted to using different, available and affordable sources of energy. In general the well to do fared better and used a variety of energy sources than their poorer counterparts. The writer used a good approach to analyse the impact of the SAP on the energy sector. A sectoral and gendered approach allows one to appreciate the diverse responses emanating from different socio-economic status. However, it seems to me, the writer did not adequately critique the sustainability of the use of the alternative sources of energy.

Linked with the use of fuel wood is air pollution. The latter is the subject of Edlam Aberra's research in Addis Ababa, Ethiopia. This constitutes chapter 8. The case study managed to clearly bring out a number of issues that contribute to air pollution especially in poor developing countries such as Ethiopia. Concentration on issues to do with poverty and land conservation diverts attention from air pollution. Despite the poor urban residents' appreciation of the dangers of industrial emissions their poverty militates against their ability to take action against the responsible industrialists. The author

managed to clearly bring out the lack of institutional and legal frameworks to deal with issues of air pollution in Third World countries. The economic interests of Uncle Toms will continue to prevail over the rights of the urban poor to live in healthy environments. In the last chapter M.A Mohamed Salih analyses the nexus between climatic change and local vulnerability. He brings to the fore the vulnerability of society to the vagaries of climatic changes and how they then manipulate the environment in orders to cope with the attendant challenges. Mohamed Salih also discusses the challenges that are met by attempts to abate the effects of climatic changes. In his view, these include the narrow interests of who uses or gains from the global environmental policies to combat climatic change. This chapter has clear linkages with issues of pollution discussed in the previous case study. Mohamed Salih observed that as the “intensity and frequency of climatic change and variability increase, households tend to develop coping strategies and to adapt to situations different from those of the past” (p216). Unfortunately some of these survival strategies tend to undermine the current resource base. The author recommends that the issues of sustainable agriculture, global policies on climatic change, biodiversity and household food security be handled in a holistic manner such that they get harmonized. This task is, however, by no means mean.

While *Local Environmental Change and Society* is basically a book that contains case studies from only 5 African countries, it is by and large a window through which we can analyse environmental issues in not only Africa but through out the developing world. The case studies are quite diverse and therefore cover a wide range of pertinent aspects. The book has successfully shown that local reality can be “interlocked into global processes and trends that enhance rather than reduce...environmental degradation and social deprivation” (p12). Local people’s access to the factors of production and their capabilities to produce food has been circumscribed by a global desire to preserve the environment. The major strength of the book is to bring out the dynamism of humankind in the face of adversity. It is a welcome publication.

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References

Mlambo, A. S. (1997) *The Economic Structural Adjustment Programme: The Case of Zimbabwe*, Harare, University of Zimbabwe Publications.