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Research Note
"ZANA" PRODUCTION

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Vegetation is one of the fundamental components of the biosphere which plays a vital role in the sustenance of ecosystems. Besides its well known function of being a major source of food and fodder for man and livestock, it serves as a major catalyst in a number of physical and biochemical processes that act separately or in combination in shaping the earth into what it is at a particular time. Vegetation plays a vital role in the pedogenic process by which soil is formed (Boul et al, 1976) and also serves as one of the most important factors that influence the extent of soil conservation after it has been put into use. Similarly, vegetation cover greatly influences the performance of crops grown on farmland and, by so doing, significantly affects the yield of crop per given land area (Nair 1987). Likewise, vegetation cover plays an important role in modifying the microclimatic conditions of an area (Young, 1989).

One other important feature of vegetation is its contribution to the economy and livelihood of most rural and urban dwellers. The significant contribution of the vegetal resources of Nigeria to the economy of the country, their potential as well as their problems are well described in several publications (Adeyoju 1960). The consensus of opinion has been that there is the need to conserve our vegetal resources. When exploitation is not properly carried out and managed, it results in the reduction of the utility of the ecology.

In order to initiate an effective conservation strategy for our vegetal resources, therefore, we need an understanding of the traditional techniques of plant management and their changing role in contributing to the livelihood of the rural and urban poor.

The production of *zana* for fencing and roofing materials in the semi-arid region of Nigeria is of great importance in the region's socio-economic and ecological set up. This study reveals the socio-economic and ecological implications of *zana* production towards an effective understanding of plant management and conservation.

Methodology

The study was carried out in Ardo-Kola and Jalingo Local Government Areas of Taraba State. A formal interview using structured questionnaires was conducted to obtain necessary information about the exploitation of plant species involved in *zana* production. The marketing and income structure of dealers were also investigated. Site visits were paid to some of the important places in the area where exploitation is usually carried out. This also provided an insight into the ecological impact of exploitation.

Results and discussion

Access to vegetal resources

Generally, there are three types of access to plants. These are private, common and free open access (Mohammad, 1995). Access to *zana* vegetal materials is the free and open type. That is, nobody holds property rights over the plant species. All the respondents said they just go into the bush to harvest the grasses.

Because access is free and open, management of the plant species is not co-ordinated; there is no form of protection for the grasses. All the respondents said they were not aware of any governmental intervention in the exploitation of these vegetal resources. Furthermore, the plant species grow naturally in the wild. None of the respondents ever planted any of the grasses and none of them ever thought of the possibility of this vegetation being exhausted.

Nonetheless, there is an indigenous management technique for the grasses. This involves cutting a short section of the plant and leaving the roots in the sandy soil to ensure subsequent re-growth. Some farmers in the study area do plant the grasses to serve as a demarcation between their farm plots and those of their neighbours.

Socio-economic importance of zana

Traditionally, *zana* mats which are produced from the afore-mentioned grasses, provide roofing sheets used in various buildings in the study area. These buildings abound in the state including the capital, Jalingo.

Zana mats are also used as fencing material between one neigbourhood and the other. Houses roofed with *zana* are always cool compared to modern buildings roofed with iron sheets. *Zana* are cheap and affordable and can be easily accessed from various depots in the towns and villages.

Zana mats provide a means of livelihood for dealers who earn two-thousand Naira (₦2,000:00) and above per day. The technology of *zana* production involves the technique of weaving the grass material in a well ordered and defined pattern. This is a skill that has to be learnt by whoever wants to be a dealer.

Generally, there are two types of *zana* produced, based on the basis of the grass material used. The 'ireware' (*Andropogon gayanus*) is preferred most because it is stronger and more beautiful compared to 'kalawole' (*Andropogon tectorum*).

As noted earlier, access to the vegetal resource is free and open. Some respondents, however, claimed to pay a paltry royalty of ₦100 to the local chiefs where exploitation is carried out. Equipment used during collection consists of cutlasses, sickles and ropes for binding.

Ecological implications

The ecological implication of unrestrained exploitation of the grasses used in *zana* production manifests in the form of flood and erosion. There is also the risk of fire hazard when these grasses are stored to dry on the field. All this can lead to degradation of land and shortage of food for range animals.

Summary of findings on the socio-economic and ecological implications of "zana" production

Social	* Houses roofed with *zana* are usually cooler compared to modern buildings with corrugated iron roofs. * The vegetal materials are easily accessed.
Economic	* They are cheap and affordable. * Provide a means of livelihood for the dealers (producers).
Ecological	* Over exploitation causes erosion, flooding, fire hazard, degradation of land and shortage of food for range animals.

Conclusion

It was observed that there has been in recent time a phenomenal increase in the quantity of *zana* being produced, and consequently, a rise in the rate of exploitation of the grasses involved. In spite of this, there has not been any conscious effort on the part of participants to sustain management and utilization of the grasses. There is also no policy action on the part of forestry or range-land agencies concerning the ecology of the vegetal resources. It will be worthwhile, therefore, for the government to initiate a proper conservation project of these resources.

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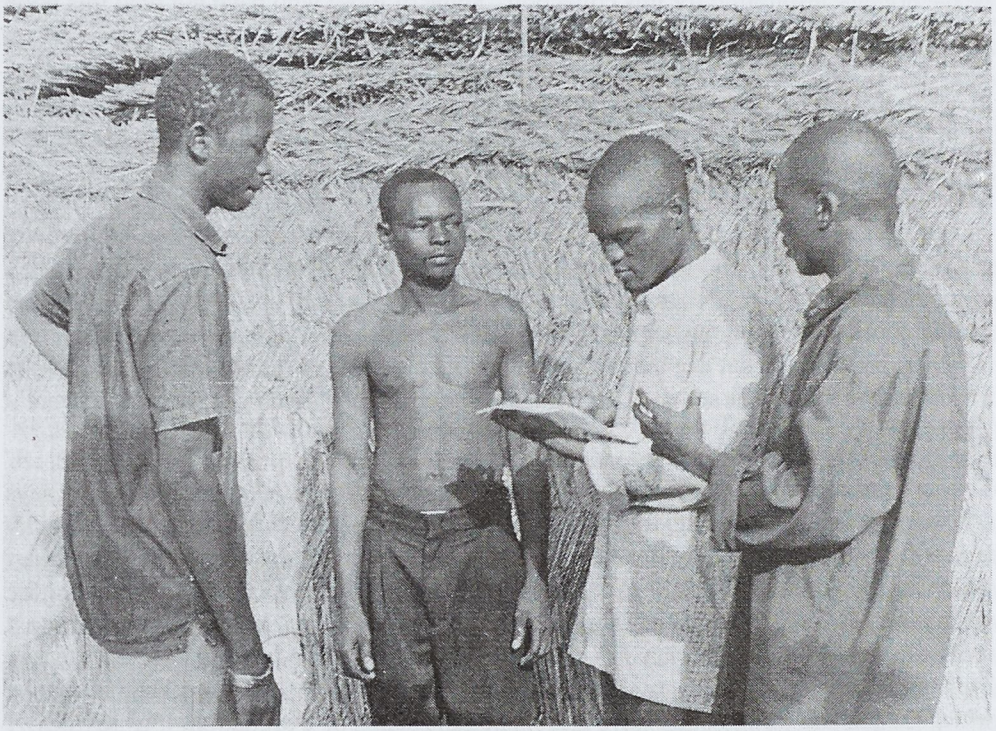

An interview session to elicit information from zana producers