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THE SOCIAL IMPACT OF POPULATION GROWTH
A Study of Social Change in Marakwet Division

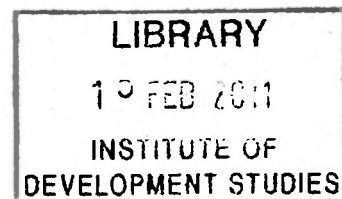
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This will be a brief paper. In the first part we give an outline of Marakwet society as a background to a discussion of social change and development in the area, that we would like to introduce at the seminar on May 10th. In the second part we present a theoretical problem that we hope can be investigated with material from fieldwork in Marakwet Division. The paper, then, is merely a research proposal presented to invite criticism and suggestions.

1. MARAKWET SOCIETY

The Kalenjin peoples have in common a decentralised form of organization, with the immediate neighbourhood as an important axis of orientation. Their social structure appears as exceptionally flexible.

It has long been assumed that the Kalenjin are more or less one people with a largely identical social structure. This view seems largely to be a hang over from an article by Evans-Pritchard on the political structure of the Nandi-group in Africa 1940 and recent field reports do not appear to substantiate his interpretation. With the meagre information available it is difficult, and futile, to advance propositions on Marakwet social structure. But a study of Marakwet society, situated as it is at the intersection between the Nandi and the Pokot groups, could greatly contribute to the knowledge of Kalenjin society, particularly as it would complement recent research in Elgeyo, Tugen and Pokot.

Some general aspects of Marakwet society ^{have} been described in a book by a former Colonial officer in the area (R.O. Hennings: African Morning. London: Chatto & Windus) and Dr. Stanley Lindsay of the African Inland Mission in Kapsowar has presented a thesis on traditional Marakwet medicine. A book on Marakwet religion by Dr. Ben Kipkorir is forthcoming, and that is about all that has been published on the Marakwet.

The Marakwet inhabit an extremely varied and dramatic country. The Cherangani mountains reach well over 3,000 meters whereas the Kerio valley below is situated at less than 1,000 m. above sea level. The distance between for instance Kapsowar in the high country and the valley is less than five kilometers.

At least three distinct ecozones can be distinguished apart from wareng, 'empty place', the part of the former "White highlands" bordering on Marakwet Division.

(1) The valley is dry and hot. It is tse tse infected and only in recent years have vaccination programmes opened it up for cattle breeding. The soil is fertile but lack of water hampers agricultural development. However, irrigation systems have given rise to agricultural communities and particularly in the northern part of the valley, in Endo, the water supply is considerable.

(2) A shelf just over the Valley is in parts densely populated. Here live many who cultivate the irrigated fields. The soil appears poor, the cultivation being restricted to wimbi and sorghum.

Further up the escarpment the conditions for agriculture are more favorable, though the gradient is still very steep. Here millet and maize ^{are} grown and cattle kept in numbers.

(3) In the high country a modern peasant economy with cash production seems to be developing. Enclosure of pasture areas and land registration is now starting giving rise to frequent land disputes. Pressure on land resources is becoming evident. Vast areas of the high country is taken up by forests.

In some respects these different ecological zones represent a gradual transformation of Marakwet society, the valley representing a more 'traditional' form whereas the high country is much more involved in a modern market economy. However, this contrast has, at least previously, been counteracted by interdependence between the different zones.

Marakwet is now becoming increasingly involved in the modern economy of Kenya and plans for various development projects are in progress, including improvements of the roads to Eldoret and Kitale, which will improve the possibilities for commercial marketing of agricultural produce. But all this is a process which has started late in Marakwet, much later than for instance in Elgeyo where enclosure of land and agricultural improvements had already gathered momentum in the late 40s. With far-reaching changes now impending in Marakwet a study of spontaneous processes of changes in the area would appear valuable.

2. THE IMPACT OF POPULATION GROWTH

In the now rapidly changing situation in Marakwet a whole set of variables are at work. Agricultural innovations, improved health standards, rising levels of education, increased administrative services, increased involvement in modern market economy, and population growth. For the rest

of this paper we will concentrate on one dimension of the transformation of Marakwet society - the changing population composition - neglecting for the sake of brevity and simplicity of argument its interdependence with other aspects of social change.

In spite of the very widespread concern for the supposed adverse effects of population growth it in fact has not been much investigated what de facto happens to social systems during rapid demographic transitions and what accommodation different local social systems can make to pronounced population increases. This is the focus of the study we here suggest. For this purpose Marakwet Division seems ideally suited. The varied ecological zones offer a testing ground for different possible social adaptations to population growth within one cultural context.

A quick glance at some other African countries' experiences of population growth demonstrates a wide variety of responses to population growth. Mounting pressure on land in Eritrea (Ethiopia) results in increasing partition of land in line with the egalitarian structure of Eritrean society. Likewise, increased population has led to segmentation of the Ibo society (Nigerian), whereas Rwanda on the contrary has experienced cementation of its system of social stratification. The relationships between population composition and social organization are certainly not mechanical and one-to-one and it is precisely this which makes the issue worthy of investigation.

Our first assertion would then be that it does seem fruitful to investigate such different adaptations to increased population. Taking change in the size of population as a point of departure (an independent variable as we hope) we could investigate resulting new social forms (dependent variable) and through this exercise hope to be able to isolate structuring principles of given societies.

Design of Study

We want to relate changes in what at present we consider a "natural" system - population to changes in social organization. How do we go about this?

Structurally the proposed investigation resembles ecological analysis and as a fair amount of studies have been done in that field, it seems convenient and reasonable to turn to them for help. A group of sociologists and social anthropologists at Michigan have presented a series of studies that we have found helpful. They have in common an ambition to

separate on the one hand the "society" - element and on the other "nature/ecology". Technology is the field where the two systems meet and relate to each other.

What we in analogy with this then could try is to relate differences in population composition ("nature") to differences in social organization taking modes of production and degree of pressure on land resources as the analytical fields where the two systems interrelate with each other.

The kind of data we would need to attempt such an analysis are unfortunately both difficult to collect and tricky to organize. We need detailed knowledge of population developments. For each of the specific areas where we want to attempt the analysis we will have to build up a register of approximately 1,500 persons, containing information on birth and, if relevant, death dates, durations of marriages, kinship links between the members of the households, pregnancies and vital events occurring during the period of observation. From these data and with the help of the 1969 census we should be able to describe changes in the population in question.

Further we need descriptions of the local society, as it is and as it recently was. We need to know how the different ecological zones relate to each other, what kind of interdependence is present, and possibly what degree of internal migration that increased population pressure on available resources give rise to.

We need to relate the population figures to available land resources so that we get an estimate of the carrying capacity of the area under the present technology. To do this different approaches are possible. In Zambia Allan tried to calculate the largest density that a given agricultural system could harbour. His concept, 'critical density of population', has been further elaborated by Brockfield and Brown in a study of the Chimbu of the New Guinea highlands, *Struggle for land* (Melbourned: OUP, 1963). But more close at hand are Drs. Philip Mbithi's and B. Wisner's studies of differences in adaptation to drought between different farming systems, which include the problem of carrying capacities ("*Drought and Famine in Kenya*", Nairobi: IDS Discussion Paper No. 144, particularly p. 11).

If it will be possible to estimate the carrying capacity of land in some chosen sublocations in Marakwet Division, we then have the further problem of adjusting for improved technology, if we want to consider the future effects of population increase in the area.

These are the different variables that we ideally would need to interrelate with the modes of production prevalent in Marakwet. There is certainly much to master, but before having more precise knowledge of the area, we thought it reasonable to present a very broad outline of the proposed study.

The kind of adaptations to population increase that we can expect varies from individual adjustments such as changed family planning practices, to more aggregated functions such as changed marriage age or changed inheritance rules, and, in an economic level, increased differentiation of production and increased internal migration, all possibly resulting in changed social organization.

So, we could start with a synchronic description of for instance one highland neighbourhood and one valley settlement. Through that we hopefully get to know the current situation and the kind of pressure on existing resources that Marakwet is experiencing.

We then proceed with adding the diachronic dimension, describing changes in social organization, in demographic set up, and in pressure on land resources for specific locations and for the area as a whole.

At that stage we should be able to establish correlations between the different variables, the next step being to analyze what kinds of correlations we have at hand.

Method

The focus of our work will be on the dimension of the social organization, on which we so far have said very little. There are two reasons for this, the most important being that before having better knowledge of Marakwet society one cannot have detailed opinions of what will be the relevant issues to penetrate, but also that it seems more obvious to us how we shall get this part of the study off the ground.

Before we can embark on the more formal and intensive phases of the study (census-taking, household-surveys, budget calculations etc.) we have to acquaint ourselves with the area, and draw a first baseline of the social organization from which we then can proceed with questionnaires and other more strict tools to confirm or refute the first observations.

Reservations like these are valid for much social science-research but of course particularly motivated in a situation where the researchers are yet unacquainted with the local society and culture, and when tackling a

problem which as yet has not been much investigated and when therefore the study to a certain extent must be a pilot study.

However, what we can do now is to list a range of elements which are likely to be of importance for our study. With these questions we only indicate the type of investigation we have in mind and the levels of analysis that we anticipate will be relevant.

General Questions:

- What changes in systems of land use and modes of production have followed with increasing pressures on land?
- What effects / ^{does} increasing population have on local standards of living?
- What are the aggregated structural implications of such changes if any?
- What elements in the traditional social structure of Marakwet are conducive to high fertility, and what factors would tend to result in low fertility. Are any historical changes perceivable?
- The same question for social values and belief systems, etc.

To investigate problems of that kind ~~we are first forced~~ to establish:

- The ~~organizational forms~~ of production; systems of land tenure; utilization of alternative ecological niches; carrying capacities for different types of land; indexes of levels of living; forms of support for economically marginal individuals (widows etc.); complementary means of subsistence and of employment, etc.

And on the level of social structure:

- Changes in household composition; patterns of residence; kinship reckoning, etc.

And, finally, on the level of primary data:

- Proportion men/women in the adult population; changes in fertility and mortality; migration patterns, etc.

Practical Relevance

The study originates ^{in an} interest in the social consequences posed by the present rapid population expansion in Kenya. In some recent papers produced in Kenya this situation is discussed and some casual references are also made to our problem. D.F. Heisel, after having observed that Kenya has one of the most rapidly increasing populations in the world today, writes that "strains are present at other levels of social organization in addition to the national. In particular, some of the basic conditions confronting the rural family are profoundly altered by this new demopraghic situation"

(Fertility Limitation Among Women in Rural Kenya, IDS Discussion paper No. 62, p.1, 1968). J. Cramer concludes a series of projections of Kenya's future population with the following remark: "with a minimum possible : future population size of 33 million, very small shambas and no open land anywhere, enormous social changes seem inevitable" (op. cit. p.10)

One obvious remedy to this situation, of course, is family planning. A byproduct of the study will be local information on attitudes towards family planning, practices, knowledge of techniques for spacing etc. and particularly suggestion for the adaption of information on family planning to local systems of communication and decision-making. Information will be gathered along the lines indicated in the questionnaire prepared by Dr. Angela Molnos for her forthcoming volumes on population planning in East Africa. (Here is one area where it could be assumed that we will have some advantages as a husband-wife team).

However, family planning alone cannot achieve a reduction in the present population increase (J. Mugo Gachuhi: *The Pill and the Family. In Strategies for improving rural welfare*, Nairobi, IDS, 1971). The study we propose here could throw light on which conditions in a social organization are conducive to reduced fertility rates and what are the social constraints. Further: how are innovations introduced? How is knowledge diffused? What are the relationships between knowledge and change in behaviour? These questions could serve as example of urgently needed knowledge. In the paper just mentioned, Dr. Gachuhi remarks, after suggesting a set of proposals with effects on the growth rate, that "studies that tried to understand the opinion of the people, i.e. socio-cultural-political studies would definitely be necessary before embarking on any of the methods" (op. cit. p. 385). It is precisely this kind of study that we propose here. P.N. Hopcraft, in commenting on Dr. Gachuhi's paper, underlined that "to examine the implications of the sort of population growth we are experiencing, we urgently need / ^{research} -based knowledge on the extent and nature of it and the problems it is going to cause".

In conclusion, the results of this study could be a more precise knowledge of the social repercussions of rapid population increase.