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REQUIREMENTS FOR CONTRIBUTIONS

Articles in the field of agricultural economics, suitable for publication in the journal, will be welcomed.

Articles should have a maximum length of 10 folio pages (including tables, graphs, etc.), typed in double spacing. Contributions, in the language preferred by the writer, should be submitted in triplicate to the Editor, c/o Department of Agricultural Economics and Marketing, Pretoria, and should reach him at least one month prior to date of publication.

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Aspects of European Research on Peasant Agriculture in Africa

by

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INTRODUCTORY REMARKS

In the European autumn and winter of 1968/69 I visited a large number of German and other Western European institutions which concern themselves with various aspects of development in backward countries, especially in Africa. Members of your Association found the report[1] I prepared of interest for your purposes, and the part dealing with peasant agriculture in less-developed countries ("LDC's") constitutes the basis of this paper.

I am not an agricultural economist and peasant agriculture was not my principal concern in undertaking this trip. However, I came into contact with numerous experts in that field, and as much of what they said seemed to deserve close attention in the Republic, I recorded it as best I could. For the purpose of this paper I would have preferred to re-write my report so as to give you a more balanced and comprehensive picture. Lack of time forbade this, and I therefore give you the original text with only minor changes. For those wishing to pursue some of the issues raised, a list of relevant publications has been added.

1. Experts's basic approaches

Two distinct lines of thought on peasant development in LDC's emerged from talks with German agricultural experts. The one starts off from the assumption that all human beings react basically alike to economic incentives, irrespective of their stage of economic development or cultural and ethnic background. The other school believes that economic motives are merely a part of the large complex of psychological and socio-cultural factors determining human behaviour. The former line of thought leads to a somewhat single-minded search for optimal economic incentives; the latter tends towards the view that economic development is above all dependent upon the slow rate at which whole societies are able and willing to adapt themselves to the demands of modern living and production.

In practice, these two approaches are not as incompatible as they may appear to be. However, most of the persons I met, inclined towards either the one or the other view, presumably depending on temperament and personal experience. This difference in emphasis naturally comes out more clearly in private discussions than in scientific writings because in his professional work the economist inevitably leans towards the first line of thought and does not abdicate before the mystique of inbred, ethnically-linked behaviour until he is satisfied that the tools of his science have been brought to bear adequately on the situation in hand. In the following, these different approaches can be ignored.

2. Peasants' reactions to incentives

Why do so many smallholder peasants cling tenaciously to their subsistence production even though cash crops would give them a much higher return? This is one of the most vexing questions facing planners in LDC's. The apparently irrational reaction of peasants has received no less attention from German agronomists, sociologists, and others than from their counterparts elsewhere.

I found general agreement that only a superficial observer can readily "discover" irrational behaviour. True, peasant behaviour may not generally be aimed at maximizing cash income or the volume of output because non-economic considerations such as the goodwill and esteem of the community or the expected reaction of the ancestral spirits may rate even higher on the peasants' scale of values than purely "economic" ones. (This begs the question whether income maximization should not be interpreted to embrace non-measurable forms of "income" such as a feeling of security, importance, self-esteem, and the like.) All observers who were asked about the issue, stressed the need for a thorough probe into any given situation in order to obtain the knowledge without which change cannot meaningfully be introduced into a society of subsistence farmers. However, the experts I talked to differed widely as regards the extent of sociological and psychological reasoning they are prepared to incorporate into their analyses.

Whereas on the ground of numerous studies it is generally accepted that all societies are undergoing change - even though the rate may vary widely from case to case - the question remains how change in traditional agriculture can be accelerated in the desired direction.

1) G.M.E. Leistner. European Views on the Development of Poor Countries. Report on a study tour to Germany and other Western countries, October 1968 - February 1969, Pretoria. Africa Institute of South Africa, 1969 (Occasional Paper No. 22).

There seems to be agreement that it is far easier to induce peasants to cultivate new crops than to modernize traditional production. Similarly it is stated that African field husbandry is changed more readily than animal husbandry. But whilst some maintain that development efforts should concentrate on gifted and enterprising individuals, others reject this. The latter say that in strongly traditionalist societies, individuals thus singled out are likely to become outcasts and that in any event the hoped-for "demonstration effect" cannot effectively operate in the face of deeply engrained sanctions and beliefs that have regulated behaviour for a considerable time. The latter view necessarily leads to emphasis on measures like primary education, health education and medical facilities, designed to modernize the outlook of whole communities.

Several experts stress the crucial importance of what Prof. Ruthenberg has styled the "threshhold of critical minimum benefit" (cf. Section 6). On the strength of empirical studies, Ruthenberg suggests that in East Africa worthwhile innovation takes place only when the marginal returns of additional land and labour are at least twice as high as usual; in respect of fertilizer, the extra return must be two to three times the cost of fertilizer.

One agricultural economist enlarged on this to the effect that the height of this threshhold of critical minimum benefit varied inversely with the level of development. That is, the less people are developed, the higher the threshhold must be. He referred to other areas where initial marginal returns five to six times as large as the cost of the marginal input were needed, e.g. the rice scheme at Mwea-Tebera in Kenya[2].

The same expert futhermore pointed out that in order to grasp the problems besetting the first phases of modern agricultural change, one must appreciate that at the early stages of economic development where bare physical existence is at stake, the peasant logically strives to maximize his and his family's chances of survival rather than his income. This perfectly rational behaviour explains why, in general, peasants are particularly slow in making the transition from semi-commercial to fully commercial farming. If they were to grow nothing but cash crops, their gross cash income could be much higher than from semi commercial farming.

However, cash crops are inevitably subject to market fluctuations that can spell disaster for a producer without adequate reserves and without alternative sources of income, not to mention the risks of climate, insect and other pests, and diseases. In a little developed economy where the state has neither the means nor the administrative structure to support large numbers of peasants, the peasant would seem well advised not to stake his very existence upon one cash crop but rather to grow at least some food crops, "uneconomic" though they may appear.

From this it follows that all governmental measures to encourage the introduction of cash crops will be hampered until such time as the peasants feel they have no reason to worry about their ability to obtain the basic means of survival. These considerations lend force to the argument that satisfactory transport and communications as well as well organized markets are a precondition for agricultural development. In this regard, food aid might have a useful role to play.

3. Motivational studies

I am aware of only one serious study[3] carried out among South African Bantu peasants with the aim of establishing scientifically the whole complex of psychological, physical and other conditions necessary for their economic development. Since this was mainly an academic exercise, I was interested to learn about several socio-psychological studies undertaken as a basis for agricultural and other projects financed by the High Commission of the European Economic Community. I met Dr J.O. Müller of the Institute for Foreign Agriculture, Göttingen, the author of some of these studies. Through numerous interviews Müller sought to obtain a picture of the abilities and willingness of peasants with regard to development. His studies also show up the approach which, from a sociological viewpoint, seems most appropriate in order to avoid a clash between well-meant plans and their implementation on the village level.

In one such study, for instance, he has elicited peasants' views and feelings concerning crops grown, land use, fertilizer, traditional and other forms of co-operation and division of labour, extension work, the respondents' aspirations for themselves and their children, specific development projects, and so forth. On the strength

2) This scheme is dealt with by R. Golkowsky in Bewässerungs-landwirtschaft in Kenya. Darstellung grundsätzlicher Zusammenhäge Am Beispiel des Mwea Irrigation Settlement (Ifo-Institut für Wirtschaftsforschung München, Afrika-Studien 39), Munich, Weltforum Verlag, 1969. A thorough treatment of sociological and administrative features of the Mwea scheme will be found in Robert Chambers' book, Settlement Schemes in Tropical Africa, 1969 (see Reading List).

3) H.W.L. Lilley, "Characteristics and Motivational Orientations of the amaNzimakwe Land-Occupiers of Location 4B". (Unpublished master's thesis submitted to the Faculty of Agriculture, University of Pretoria, 1967.) Certain relevant aspects are dealt with by J. Bezuidenhout in his master's thesis submitted in 1966 to the same faculty, Boerderybedryfsvoering in die beplande grondgebied Matoks (N-Tvl.)

of his investigations in francophone Africa, Müller could arrive at useful conclusions, amongst others, on the varying attitudes of different tribes within one country. However, in the present context it must suffice if attention is pertinently drawn to this important and as yet little explored field of pre-investment research.

4. Patterns of agricultural development

One of the outspoken opponents of the "individualistic" approach to development (i.e., an approach based entirely on economic incentives to individual producers), a man with decades of experience as adviser both in Germany and abroad, argued that a fundamental change in peasants' outlook only comes about when their environment is changed. His own dealings with German farmers have led him to believe that all extension work, advisory services, demonstrations, etc. is more or less love's labour lost for as long as those at which these efforts are directed are not directly touched by urban and industrial living conditions. Even literate and generally intelligent farmers like the Germans, began to cast off their ingrained traditionalism only after World War II. It was then that secondary industry and urban settlement mushroomed in the reduced living space of the Federal Republic, and farmers were brought into the closest contact with urban living and very quickly re-orientated their whole outlook. Sewerage, electric lighting, ownership of a car, a television set, washing machines, and other trappings of modern living all of a sudden became desiderata and, in fact, necessities.

"You can't have agricultural modernization in a vacuum", he repeated several times. In his view, the development problems of (i) the U.S.A., (ii) European countries, and (iii) the LDC's are not basically different but rather represent the different stages of one universal process. He said that upon visiting the U.S.A. some 15 years ago, he thought that what he saw was quite irrelevant to German farming. Yet today, German farmers were already face-to-face with a very similar situation: mechanization, consolidation into larger units, centralization of schools in major rural towns (instead of having a one-room school in every hamlet), and so forth. Today, German farmers demand parity of income with industrial employees, a demand that would have been inconceivable before the war, and is another sign of how fast change can be once propitious outward conditions have come about.

In this expert's opinion, no great change must be expected from exposing a limited number of unattached individuals to the demonstration effects of industrial and urban life. Unless these individuals' wives, children, in fact their whole community and the routine of its daily life, are equally exposed to these demonstration effects, the necessarily non-continuous efforts of extension personnel cannot have a lasting impact. (Bantu migrant workers in South Africa seem to bear this out.) What is needed, is to change rural living condition through the introduction of processing and manufacturing establishments, the erection of modern shopping, recreational, and related service facilities, and generally the creation of urban centres. "Create little towns in the country-side, and agriculture is pulled up automatically."

Finally, to illustrate the ineffectiveness of demonstration, he referred to his experience with a group of German peasants who work part-time for a large pig-fattening farm. On that farm, they help fatten piglets for sale within 6 months. Yet at home these same peasants do not apply the methods they use on the farm and, consequently, need about double as much time to fatten their own piglets. "So what do you expect of African or Indian peasants?"

By no means everyone concerned with agricultural development would subscribe to these outspoken views. However, they deserve being recorded in some detail because they echo much of French thinking in this regard, and also struck me as rather plausible. Obviously, this is but one hypothesis, and certainly it is not a very helpful one for poor economies struggling to get their first processing and manufacturing ventures off the ground. One professor, asked his opinion about the foregoing, said that in Asia, which he knows best, there is hardly a peasant who is not within the orbit of some selling outlet where desirable objects can be obtained. They are all well aware of what is to be had. However, if the prices they realize for their crops are such as to put these desiderata beyond their reach, they might as well not exist. So the point is not whether the demonstration effects of an urban environment are nearby but rather whether there is a readily accessible market offering attractive prices. If worth-while price incentives exist, the peasants are sure to react positively.

Another highly competent scientist stated categorically that if peasants do not react to efforts to improve their methods, there is something wrong in the approach of those seeking to promote change, and that one must earnestly search for the errors. In his view, economic incentives are the guiding motive, so if the peasants do not respond as desired, one has to offer more appropriate incentives. As distinct from this somewhat extreme position, numerous German scientists bring to bear sociological, psychological, and ethnological research on their agricultural studies, in order to supplement purely agronomic or agricultural economic investigations.

A very interesting example of how interdisciplinary co-operation can lead to differentiated insight into a complex situation was come across at Heidelberg. Dr A. Bodenstedt, a sociologist attached to the Centre for Research on Agrarian Structures and Co-operatives in De-

veloping Countries (Forschungsstelle für Agrarstruktur und Agrargenossenschaften der Entwicklungsländer), outlined the preliminary findings of a major study in India undertaken by him and an agricultural economist.[4] Their task had been to evaluate and compare the results of three rural development projects - American, German, and Indian respectively. Their investigations have led them to distinguish three principal groups of Indian farmers:

1. Very poor ones. - You cannot expect to arouse much interest among them in agricultural improvements if, even with these improvements, their farming activities still provide no more than, say, three-quarters of their total subsistence needs. Quite realistically, they argue that the extra effort is not worth their while because they still have to find outside work in order to fill the gap.

2. Well-to-do farmers (that is, well off by local though probably not Western standards). They know that by using modern methods of cultivation they are bound to increase their wealth. So if suitable incentives exist - notably an urban centre which tempts them with diverse consumption goods, and at the same time provides them with a satisfactory market for their produce - prospects are favourable that these farmers will react positively.

3. An intermediate group. - Potentially, this is hopeful too for if these farmers realize that by using progressive methods they will be able to cover at least 100 per cent of their minimum needs - and hence need not look for outside work to fill the gap left by current agricultural practices - they are generally willing to put in the effort called for by modern farming. Once this stage has been reached, they can be motivated like those in group (2).

Bodenstedt related that their experience had clearly shown that studies of this nature cannot satisfactorily be carried out by either agricultural economists or sociologists alone, each of whom has his specific professional bias, but rather should be a joint effort.

Attention may here be drawn to the typology of market intergration suggested by Prof. Peter von Blanckenburg, a leading agricultural sociologist whose institute I visited in Berlin. For the purpose of agricultural advisory work, he distinguishes the following four categories which have to be understood as a model that must be adapted to each specific situation: [5]

1. Groups of subsistence farmers producing almost entirely for their own needs. The value of regularly marketed products does not exceed about 10 per cent of that of total output.

2. Groups in a state of transition to a market economy. The sale of products plays a certain role but their value remains between 10 and 50 per cent of total output.

3. Groups that are predominantly integrated into the market economy, and the value of whose marketed output ranges from 50 to about 90 per cent of total output.

4. Commercial producers, entirely or almost entirely orientated towards the market.

Although of much interest, von Blanckenburg's practical deductions based on this model cannot be discussed here but his writings certainly deserve to be consulted by South Africans planning socio-economic studies of Bantu agriculture.

5. Widening of markets

Several persons stressed that one should guard against the dangers of transforming too rapidly a subsistence economy into one geared entirely to world markets. Rather should a step-by-step approach be followed, beginning with the exploitation and widening of local markets, going on to regional and later national markets, and seeking access to world markets only once a fairly strong domestic market has been built up. (Sceptics maintained that this is sound in theory but can be applied only in respect of a limited number of products and by a few countries.

In this view it is quite irresponsible to replace subsistence production by production for world markets with their violent and unpredictable fluctuations, because the peasants commonly do not have the financial reserves to sustain themselves on purchased food for any length of time

4) By the end of September, 1969 the results of this research had not yet been published.

5) See P. von Blackenburg. "Die inhaltliche Ausrichtung der Wirtschaftsberatung in Entwicklungsländern", Zeitschrift für Ausländische Landwirtschaft (Frankfurt/M), Vol. 6, No. 3, August 1967, p. 264.277. Blanckenburg's stages of in volvement of traditional farming communities in the exchange economy are similar to those expounded by K.C. Abercrombie in an article, "The Transition from Subsistence to Market Agriculture in Africa South of the Sahara", in C.H. Whetham and J.I. Currie (eds.) Readings in the Applied Economics of Africa, Vol. I, London, Cambridge University Press, 1967, p. 1-11.

whereas the governments of LDC's are not equipped to support large groups hit by calamity. As far as I could ascertain, it is only at Misereor, the Catholic aid organization at Aachen, that serious thought is being given to practical alternative solutions to these problems. But much more study and thought is needed.

Drawing on his extensive experience in Bolivia, one of Misereor's agricultural experts described the circulatory process in one of that country's twenty or more regional barter economies. This particular region is particularly suitable for growing lucerne, and yields up to three and a half times as high as in the USA can be obtained. Yet the peasants show no inclination to change their traditional pattern which is as follows:

Maize is the predominant crop and is grown for food and beer brewing. Typically, each family has two to three cows, an ox, a donkey, and a few freely roaming pigs. The maize leaves and stalks are fed to the cattle and donkeys, the offals of beer brewing to the pigs. The beer is sold on village markets and in particular in the little district town. The prices realized are low. The fodder given to the animals helps to maintain their "output": the cows yield 1 to 2 litres of milk a day, the ox is used in ploughing and the donkey carries the beer to market and also the cheese made from the cows' milk. This cheese is sold in town at prices lower than the milk that goes into it. The buyers are able to pay these low prices because they act as money lenders or providers of credit for the peasants' purchases of implements, consumption foods, and other needs. In the final analysis, the activities outlined above are just enough to ensure the basic needs of subsistence, and there is no net gain. There is, however, a small net gain from the sale of pigs, and this enables the peasants to buy "imports" from outside the region such as plastic shoes or transistor radios.

In Southern Africa, nothing like this exists. But it is possibly worth-while to search for circular systems embracing subsistence agriculture, patterns of lobola, trading stores, and migrant labour. This might provide clues as to "gaps" through which new elements could be introduced that would transform traditional agriculture. The studies on Bolivia, at any rate, culminate in determining such gaps. These can be quite different from area to area. In one instance, it was found that by sinking boreholes yielding pure water, an enormous stimulus could be given to a region which stagnated because the only water available was that from shallow wells and had a salt content that rendered it unsuitable for irrigation. In another instance, lack of a few feeder roads was the crucial obstacle to development. What matters is that the critical defect blocking progress in all other directions has to be determined through careful study of all relevant facets of the situation.

Once the closed circuit has been broken, in say, four adjoining or overlapping regions, it is possible to lay the foundations for inter-regional exchange and hence further development. One must be careful not to try and "open up" overnight the original circuits to outside markets and economic forces because they provide at least a modicum of security for the people concerned. If these people are compelled to grow cash crops for world markets, they are exposed to considerable risks, and the new state may be worse than the former. So the recipe is to find means of stimulating the cultivation or manufacture of products suitable for inter-regional exchange, and to venture into overseas markets only when the domestic network of exchange is reasonably well established.

This approach calls for certain, possibly expersive, initial investments in order to break the closed circuits. On the other hand, the effort involved in determining - and eliminating - the basic obstacles to development probably entails much less heavy investment than a strategy of the "big push". It also implies a macro-economic, or rather regional, approach as distinct from the micro-economic one which underlies concepts like the "critical minimum benefit" and others concerned with incentives for the individual farmer. Incentives can only start functioning once there are in effect any markets, and the regional approach seeks to establish these very markets. So in this view the regional approach has to come first in order to create markets the utilization whereof must subsequently be stimulated by appropriate incentives to individual farmers.

A senior official of the European Economic Commission referred to an interesting approach followed by the EEC in West Africa. Starting from the premise that on the one hand, European planners tend to project their picture of European family farms onto African conditions, whereas, on the other hand, African peasants are very slow to adopt a new approach in their traditional environment, the Commission seeks to gradually fuse the modern and the old.

Large plantations (especially tea and oil palm) with the requisite processing plant have been established. Management, marketing, etc. follow the most up-to-date practices. These plantations form the nucleus around which numerous small African farming units producing the same crops are situated. Their products are delivered to the central processing plant. Seed, fertilizer, technical advice, etc. are provided through the plantations. Once the peasants prove themselves capable of delivering crops of the requisite quality at the right time, parts of the plantation are increasingly handed over to smallholding peasants. In respect of oil palms, about one-half of total acreage was stated to be already cultivated by peasants, and the whole approach was claimed to be most encouraging. (Other observers were sceptical because of unfavourable trends in world oil and fat markets, but not because of inherent flaws they saw in these schemes).

It is widely held that one-channel marketing is indespensible in the early stages of peasant development. The reasons are as follows: Firstly, co-operation in the marketing of produce is encouraged. Secondly, more uniformely high quality and hence better prices can be obtained. Thirdly, credit extended to the farmers can be readily recouped, and, fourthly, the exploitation of farmers by middlemen is eliminated.

6. Production under close supervision

In Germany, the concept of "production under close supervision" is linked with the name of Prof. Hans Ruthenberg of the Institute for Foreign Agriculture (Institut für Ausländische Landwirtshaft) of the University of Hohenheim, Stuttgart. Through his own work as well as that of his students, Ruthenberg has shown up clearly the modus operandi and the role in overall development of production under close supervision, as distinct from other forms of organization. Briefly, it entails the following: [6]

A supervising agency provides a basic framework of services and rules.

Within this framework the individual participant may practise farming at his own discretion.

The participants may be members of supervised co-operatives which carry out certain tasks co-operatively.

Supervision is exercised either by an agricultural corporation, a settlement agency, a government department, or a private firm under contract to the state. Basic to such schemes is the combination of selective pressure aimed at ensuring economically and technically efficient production on the one hand, and incentives through high income levels on the other.

Cases in point are the production of Virginia tobacca in East Africa under the supervision of the British African Tobacco Company; tea production controlled by the Kenya Tea Development Authority; cattle farming at Kongwa, Tanzania; the Gezira cotton scheme in the Sudan. On the strength of his extensive studies in East Africa, Ruthenberg considers production under close supervision to be superior to co-operative production. Despite its versatility, he does not view supervised production as a panacea, be cause its success depends, amongst others, upon the availability of trained supervisory personnel, a certain minimum size of the projects, well-paying crops, single-channel marketing, and the right psychological "climate".

Notwithstanding these limitations, Ruthenberg regards closely supervised production as eminently suited to irrigation schemes. He believes that only close supervision of producers can ensure the degree of efficiency that is essential if the capital invested in such schemes is to show a net return.

7. Agricultural co-operatives

Most of those I asked about the possible role of co-operatives were sceptical. This applied in particular to production on a co-operative basis which was universally considered unsuitable in the early stages of development. The main reasons named for this were (a) clash with tradition, (b) lack of a clearly discernible link between individual effort and gain, (c) lack of technically and personally qualified leadership, and (d) the contradiction between the co-operative ideal of all members having an equal say on the one hand, and the practical need for one competent decision-maker. With regard to (d), it was also pointed out that whereas all members have an equal status and say, their intelligence, knowledge, and readiness to pull their weight may be very different. [7]

Observers favourably disposed towards agricultural co-operatives were unanimous that one should start with something that meets a generally felt and urgent need. Naturally this varies from place to place. An authority on co-operation, especially in LDC's, mentioned the following. In many parts of Africa, co-operatives storage facilities for traditional crops are known to have brought about drastic changes in the economic position of peasants. Traditionally, grain crops are stored by individuals under conditions where unexpected rains lead to moulding, sprouting, and general deterioration. Or - alternatively - the crops are sold to traders at harvest time, at low prices, only to be re-pruchased by the producers later on at very high prices, and with the trader frequently using falsely calibrated scales. In Dahomey, co-operative storage has enabled participants to realize appreciable profits by selling to non-participants.

The provision of credit is considered utterly unsuitable as a first step in co-operation because unsophisticated peasants happily accept fertilizer, seed, implements, etc. "free" but will not readily repay this credit in cash after the harvest. None of the experts I visited was aware of successful co-operation in the field of production but there was wide agreement that co-operation buying and selling hold much greater promise.

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6) See, for instance, H. Ruthenberg (ed). Smallholder Farming and Smallholder Development in Tanzania (Ifo-Institut für Wirtschaftsforschung München, Afrika-Studien 24), Munich, Weltforum Verlag, 1968, p. 275-305, 351-3.

7) Attention may be drawn to a very promising scheme in Niger embodying peasant participation on a communal basis in credit and marketing operations; see P. Anderson, "New System' in Niger", Africa Report (Washington, D.C.), Vol. 13, No. 8, November 1968, p. 12-17.

One agricultural economist with extensive experience of East and West Africa stressed the importance of clearly differentiating between the numerous forms of agricultural co-operation that are possible in practice. Whereas, in his view, co-operative production under a system of communal land tenure is doomed to fail, co-operative processing by individual farmers is ruled out by technical factors or the economics of scale. Coffee is a case in point. Co-operation in respect of storage, marketing, the provision of credit, and the distribution of water are other examples where common needs might provide a basis for co-operation which can later be extended if warranted by circumstances.

In the opinion of Prof. Paul Trappe, a leading figure in this field, there is no more effective means than co-operative organization to mobilize vast masses of people living below the poverty line. The only alternative is compulsion - which is contrary to development understood as a "widening of choice". [8]

8. Animation rurale

German agricultural sociologists well acquinted with francophone African countries drew my attention to the French system of animation rurale. The account given by one of them was as follows.

Local traditional authorities are informed about the government's overall development policy and more particularly the agricultural side thereof as it affects them. Once they are won over to the idea of actively participating, they are asked to select a few of their people who are then sent to a training and information course lasting 8 to 10 days. These courses are held in the familiar surroundings of their home districts. The trainees then report back to the village community, and after some time they are called back for further, more intensive training in the use of fertilizer, plant protection, weed control, etc. Once this knowledge has been absorbed, they return home and impart it to their fellow villagers.

These courses may be repeated as deemed necessary. The accent throughout is on practical know-how which can be readily applied in the local milieu and calls for very little investment in means of production. An important factor is that the animateurs are unpaid volunteers selected by the community itself. Once the peasant community is sufficiently "activated", efforts are made to encourage co-operative forms of buying and selling in order to eliminate intermediaries (mostly foreigners like Indians, Pakistanis, Chinese, Lebanese, etc.) who also act as money lenders and very often exploit the peasants through usury and by paying minimal prices for their products.

In the Niger Republic, the results of this system are regarded as favourable, in Madagascar they range from very good to not so good, and in Senegal it proved a failure. [9]

9. Priorities in planning agricultural development

One agricultural exonomist with wide experience of Africa and other backward regions stated that development agencies generally are too anxious to uplift and "develop" everyone in sight. Basic economic rationality demands that LDC's give priority to projects where the available resources will yield an optimal return. Hence low priority can be accorded to regions and groups where the ecological equilibrium between man, beast, and food resources is still more or less intact while at the same time there are in the same country densely populated regions whose human and other resources deteriorate because of an ecological imbalance. Generally, where equilibrium exists, the people are reasonably healthy, the traditional needs and wants prevail and can be met, there is no loud clamour for change, and thus the climate of opinion is not particularly conductive to development efforts.

In situations such as these it is best to leave well alone. One might perhaps send in a few doctors to look after the people's health. When I suggested that medical care more or less inevitably disturbs the ecological balance through lowering the death rate, the speaker replied that in his experience so-called primitive people know a great deal about family planning. However, the factors responsible for the population explosion in most LDC's were so diverse and the interaction so complex as to defy any explanation on his part.

CONCLUSION

In conclusion, I want to repeat what was said to me by an agricultural economist who is not only highly competent professionally and experienced in African affairs but also very sober in his whole outlook. "It's a great pity you South Africans are so cut off from the many interesting and often well-conceived developments that are going on in Black Africa in respect of agricul-

8) See Paul Trappe. Warum Genossenschaften in Entwicklungsländern? Luchterhand, Neuwied & Berlin, 1966. Idem. Die Entwicklungsfunktion des Genossenschaftswesens am Beispiel ostafrikanischer Stämme. Summary in English. Neuwied am Rhein & Berlin, Luchterhand, 1966.

9) The following article should provide useful information but could not be traced in South Africa: B. Joerges, "Animation Rurale in Afrika. Die Methoden der IRAM", Zeitschrift für Ausländische Landwirtschaft, Vol. 6, No. 31, p. 293-309.

tural planning, marketing, land reform, and so forth. I know that you in the Republic also have a great deal of experience but you could learn a lot in the rest of Africa."

I am not competent to judge the extent to which this is true. Still, I hope that my account has given you a few useful hints and ideas.

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NOTE: The publications listed above, as well as others dealing with peasant farming in Africa, can be consulted in the library of the Africa Institute of South Africa, Pretoria.