



SOCIAL SCIENCES RESEARCH CONFERENCE

COMMUNITY DEVELOPMENT
IN A HYDRO-AGRICULTURAL
SCHEME

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General Description

At present in their final stages of development, the various schemes now being carried out in the Lower Limpopo area aim at land conservation and improvement by means of flood control, irrigation and drainage. They cover an area of about 18,000 hectares to be used for the settlement of both Europeans and Africans.

One of the many problems which had to be solved to ensure the successful cultivation of the soil, was that of the periodic devastating flooding of the Limpopo River. This was overcome with the completion of a 40 KM. long dike.

Owing to the lack of natural drainage of the low-lying marshlands, there was the need of an effective drainage system which was met by a system of channels and ditches totalling a good few hundred Kilometres in length, while the construction of dams, sluice gates and pumping stations made provision for the emergency when a period of heavy rainfall in the region should coincide with an exceptionally heavy flow of the river.

The problem of irrigation of the higher situated clay soils was solved by the installation of pump stations on the banks of the Limpopo River. For the peat soils, the so-called machongos found near the slopes and lower down the valley, furrows and basin irrigation methods were employed which, easy and economical, take full advantage of the soil's permeability, and only need simple sluice gates in the drainage furrows to regulate the water table in accordance with requirements of the crops.

Within the region referred to, these machongos stretch over an area of about 3,500 hectares, comprising four hydro-agricultural schemes wholly occupied by Africans. In these schemes, for reasons mentioned above, a denser network of drainage channels was created, thus demarcating and irrigating

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each individual plot.

Of the hydro-agricultural schemes occupied by indigenous settlers, that of Inhamissa is undoubtedly the most outstanding, not only because it is the oldest and one of the largest, but also because of the socio-economic results that have already been achieved there. This scheme was started in the first half of 1951; by December, 1953, 966 families were in occupation of 388 hectares; and today there are 1,600 families on 1,400 hectares, as well as a waiting list of 150 families anxious to occupy any plot that might fall vacant. As the result of these various programmes a community of small-farmers has been created and developed.

Aims of the Scheme

When the various programmes were initiated their main objective was to find a solution for the feeding of the African population living in regions with poor sandy soil, which scarcely provided the bare necessities of life and forced the bread-winners to look elsewhere for means to sustain their families. In this agronomic plan the fertile but permanently inundated peat soils were included. Once drained, these would permit the cultivation of a great number of easily irrigable crops, such as rice, maize, bananas, vegetables, horticultural crops, potatoes, thus enabling the settlers to pass from a bare survival economy to profitmaking.

Once the food problem was solved, efforts were made to stabilize whole family groups, including the male bread-winners in that area, while bearing in mind the requirements of Joao Belo, a town capable of absorbing much labour. This aim, too, is being realized, as the number of resident male bread-winners who are not directly involved in the cultivation of the land, is increasing year by year.

Socio-economic Aspect

The improvement of a people's standard of living is not solely a problem of food supply, but concerns the joint solution of various other aspects that have to be faced, such as schools, public health, water supply, housing, the improvement of poor soil for cultivation, and so on.

1. With regard to food production, a drainage system covering 1,400 hectares and an irrigation system which covers part of that area in the main programme, has already given the settlers of irrigated plots the possibility of an annual return

of 7.350 escudos (i.e. 3,000 Kg. of rice at 1.70, plus 1,500 Kg. of maize at 1.50), and this figure does not include the profit derived from banana trees surrounding the plots (approximately 100 trees per plot), nor of the yield of horticultural crops.

Considering that no deductions are made for the cost of drainage, irrigation, pest-control, seed selection and storage, which are all borne by the Government, and that these settlers therefore receive all these benefits free of charge, it can be well understood why Africans from other areas are keen to come to the Inhamissa region and to obtain plots there.

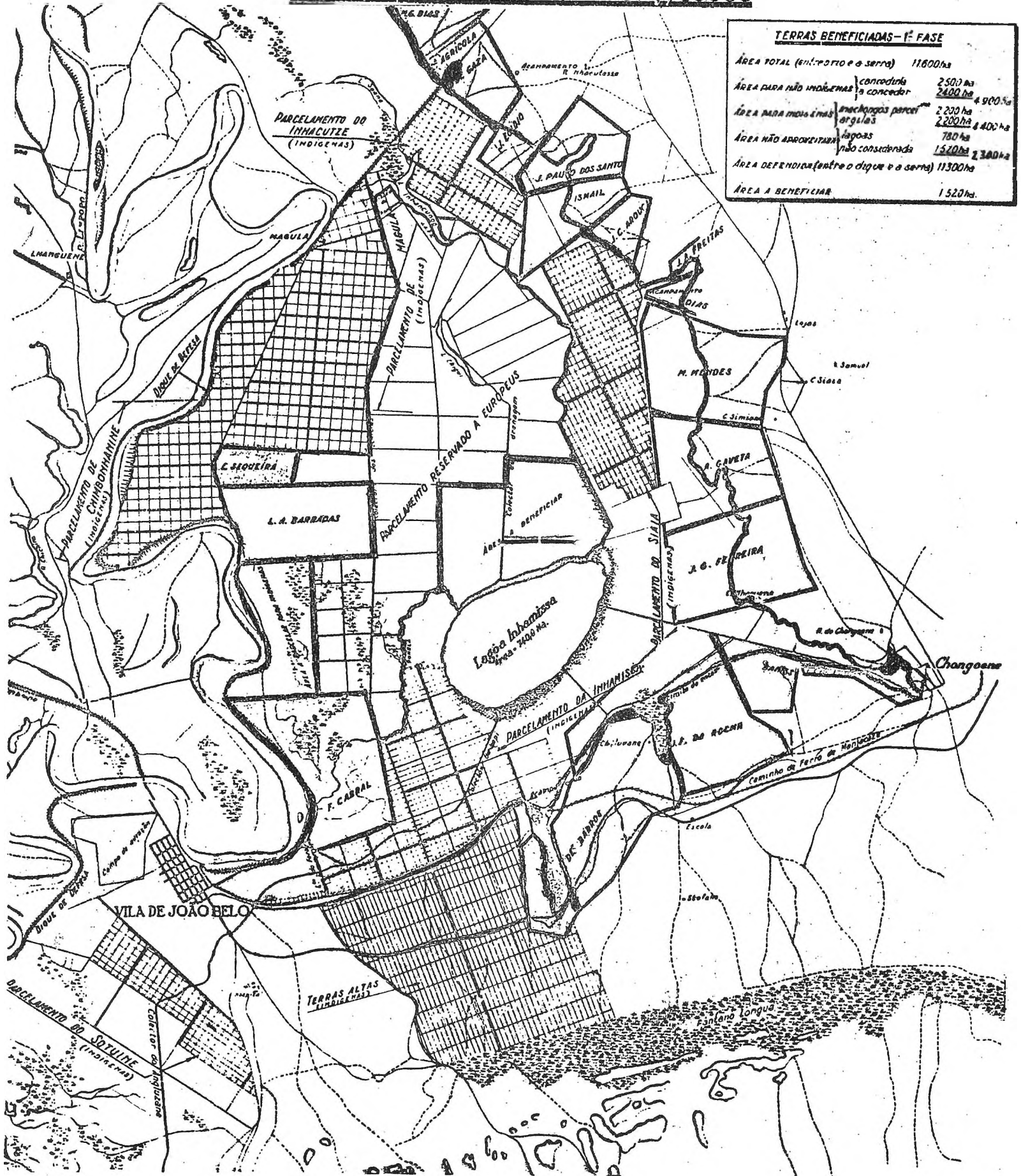
2. Water for human and other domestic needs had been deficient, and the people had to resort to springs at the base of the slopes as their only and limited supply of a doubtful nature.
This problem was solved by the drilling of a few deep wells from which the water is taken to storage tanks. Where possible, shallow holes were excavated and the wells fitted with hand pumps. In order to avoid contamination when bathing or washing in the scheme's water network, sanitary public bath houses and laundry facilities were built at every well.
3. Although the hospital at Joao Belo is only 6 KM. away from the centre of the resettled population, a clinic, staffed by a fully qualified nurse, was established for first-aid treatment. Apart from its routine work this clinic is also responsible for the anti-malaria campaign and maintains a permanent and fully equipped team engaged in the spraying and dusting of ditches, canals and houses. An annual and systematic anti-bilharziasis campaign is also waged and, injections are given to all positive cases.
4. For the solution of the housing problem a few trial designs were first built, which are now being tested for wider application. During the current year the building programme will be resumed. The houses are built by the Government, and interested parties are permitted to buy them in yearly instalments, fifteen payments being the maximum, since these fall well within their capacity to pay. The houses are constructed on higher, well-drained ground and on individual lots which allow for the addition of pens for domestic animals. One thousand two hundred such lots have thus been surveyed for future building sites.

J.A.P.A.

APROVEITAMENTO AGRÍCOLA DAS LEZÍRIAS DO BAIXO LIMPOPO

PLANTA PARCELAR

ESBÔCO NA ESCALA APROXIMADA 1/50000



TERRAS BENEFICIADAS - 1ª FASE	
ÁREA TOTAL (entre o rio e a serra)	11600 ha
ÁREA PARA NÃO INDÍGENAS	4900 ha
concedida	2507 ha
a conceder	2400 ha
ÁREA PARA INDÍGENAS	6700 ha
inchoangos parcelados	2200 ha
argilas	2200 ha
a conceder	4400 ha
ÁREA NÃO APROVEITADA	780 ha
vagas	780 ha
a conceder	1520 ha
ÁREA DEFENDIDA (entre o dique e a serra)	11300 ha
ÁREA A BENEFICIAR	1520 ha

5. The rehabilitation of those areas with poor soils which the Africans cultivated on a small scale to produce edible crops, has been achieved by establishing small plantations containing not only fast-growing trees to supply timber for their primitive buildings, but also with fruit trees such as cashew, mango and coconut, in order to supplement their diet.
6. As prizes farmers receive pedigree fowls, stud rams and goats which not only act as an encouragement but also provide the people with the means of improving the quality of their livestock.

Community Development

As a result of the benefits which have accrued to the settlers from all these activities, conditions have been created for the social and economic progress of all the people involved in the Inhamissa scheme. Thus a community of small-farmers has been established who, besides benefiting materially from the drainage and irrigation plans, the roads that have been built, improved water supplies and methods of cultivation, have also enjoyed better health and educational services through a process of collaboration which has allowed this community to solve many of its problems.

As we have already remarked, this community numbers in all 1,600 families, the proportions of farmers are as follows :-

Male farmers	15% of total
Women (widowed, divorced or single)	45%
Women (married, with husbands in paid employment inside or outside the area)	40%

It should be noted that the number of male farmers expressed as a percentage in relation to the total remains constant. This can be explained by the tendency, or even tradition, among the males of the area of leaving to their women and children the task of tilling the soil, while they themselves seek paid employment within or outside the area. The number of married, widowed or single women also tends to remain constant, but the number of women whose husbands have some kind of paid employment within or outside the area tends to increase, as more employment becomes available in the town of Joao Belo. Wages there range from 500.00 escudos a month for manual labourers, to 3,000.00 escudos or more for skilled workers. The men go to work every day and return to their homes in the evening. This aspect is very important as it shows without doubt that

one of the main objects of this scheme - to stabilize the people on the land and to promote a closer family life - is being achieved.

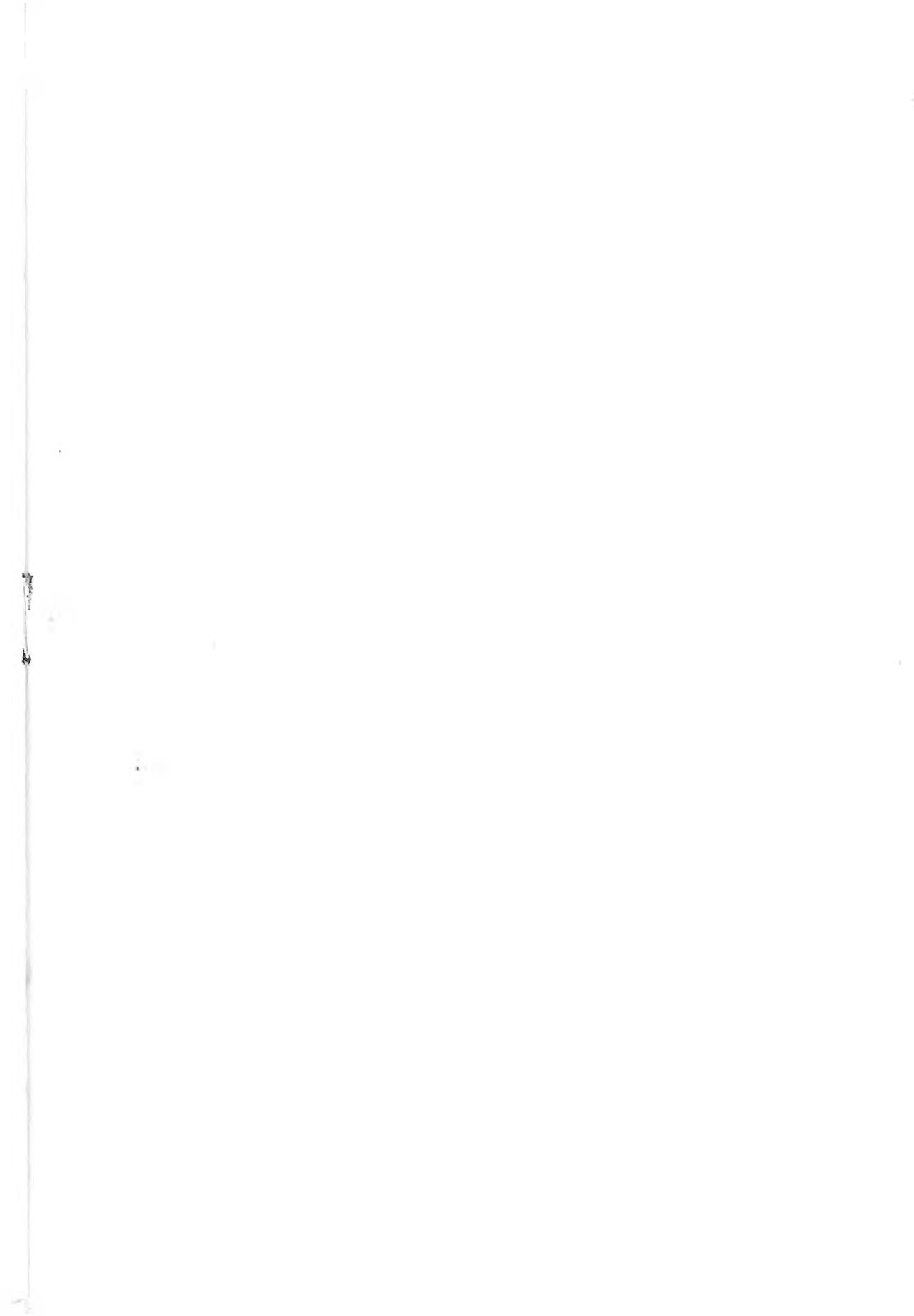
As this is a farming community, the exchange of views which takes place between the community leaders and the people under their control is usually centered around agricultural problems. To ensure that such an exchange does take place, meetings are arranged, sometimes every week. Farmers are encouraged to discuss any matters relating to land usage and land improvement. Advice and guidance on methods of cultivation, irrigation, the use of vegetable fertilizers, crop residues etc., is given and considerable progress has been recorded. For example, the traditional tendency to burn waste is disappearing.

During these meetings the people also air their other problems, state their needs, make requests and offer suggestions. Problems with regard to succession and inheritance, quarrels and other matters, are all discussed and dealt with, and solutions are found with due regard to the people's customs and practices.

Every effort is made to encourage the highly co-operative spirit found amongst the Africans and care is taken not to thwart it. It shows itself most clearly when long drawn-out work has to be done and such work is carried out by groups of farmers who aid one another.

As has already been mentioned, these meetings also serve as a forum where the farmers discuss their needs and problems arising from quarrels amongst themselves. These are solved according to their customs and traditions; special care is taken not to interfere or obstruct the sentiments and traditions of peoples whose social life present well-defined patterns of beliefs and of justice. Even their idea of punishment for unlawful practices is somewhat different from ours, and they may not be satisfied with the penalties provided for by the Criminal Code. It happens not infrequently that members of the community demand punishment according to their customs for wrongs which in European law would carry only a symbolic penalty.

When dealing with African people, the methods used to obtain the desired results have been persuasive rather than forceful. There is no doubt that by force quicker results could be obtained, but these would be of short duration as they would tend to disappear as soon as proper supervision is being removed. The practice of gentle persuasion and advice slowly spreads its roots, and bears fruit far into the future. In this way, without compelling any mass movements, we have been able to settle the African population on properly prepared sites. In this manner, although by nature suspicious, the people are beginning to believe that there are benefits to be derived from applying the advice of those who are now leading and guiding them.





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