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KENYA’S AGRICULTURAL DEVELOPMENT POLICY

by

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It is still useful to distinguish in Kenya agriculture between the former European and African areas, which used to be known as the Scheduled and Non-Scheduled Areas in this country. In the former Scheduled Areas, the key developments, to which the government found itself heavily committed at the time it took over in 1963, involve the transfer of ownership of large parts of the mixed farming areas. Land settlement schemes in which large farms are subdivided into smallholdings, and the transfer of large farms intact to African owners, were started early in the 1960s as an answer to strong political demands for African ownership in the former European areas, and as an outlet for the growing numbers of landless and unemployed. The programme was undoubtedly successful in solving immediate political problems, but since the implementation of the settlement and land transfer schemes there has been a considerable amount of disillusionment, and a growing awareness of their colossal demands on development funds. In 1965/66 72 per cent. of the government agricultural development budget was going to the former European areas, mostly on these land transfer schemes. One of the most striking changes in policy, recently, has been the decision to shift the emphasis away from the former European areas and the settlement schemes to the former African areas in which it is hoped to spend 69 per cent. of agricultural development funds by 1969-70, according to the Plan.1

In the former African areas development is to rest on an accelerated programme of land reform, begun in the 1950s to introduce a system of individual titles to land throughout the small-scale farming areas; a new and ambitious programme of smallholder credit, hitherto rather unsuccessful in Kenya; continually expanding educational and research activities; and a special programme for the pastoral areas. Specific crop and livestock programmes form part of this general framework, with production targets in many cases right down to the district level.

There is to be a continuation of irrigation investigations and a rationalization of existing irrigation schemes; there is to be some extension of settlement in the former African areas where there is good land to spare; there is a scheme for tsetse control in western Kenya; and there is an allocation for soil conservation work. But except for irrigation, none of these calls for a major allocation of development funds. Table 1 shows the distribution of central government development expenditure in agriculture during the six year period of the Plan.
THE FORMER SCHEDULED AREAS

The former European areas, which contributed 80 per cent. of the country's marketed agricultural output and an even higher proportion of agricultural exports, in 1960 covered 7½ million acres of land. Of this, 3.4 million acres was mixed farming land, which is considered suitable for the land transfer and settlement schemes, 2.6 million acres was in ranching, and 1.5 million acres plantation land. In the mixed farming areas 1.0 million acres has now been settled with 30,000 small-scale farmers since 1962, and a further 100,000 acres is to be settled during the period of the Plan. Some of this has been in 'high density' schemes for the landless and unemployed with virtually no initial capital, and some in 'low density' schemes for the more prosperous small-scale farmers with some initial capital to contribute for a somewhat larger farm than they had in their tribal areas before. Six hundred thousand acres of mixed farming land has also been transferred intact to large-scale African farmers, with a further 250,000 acres to be transferred during the period of the Plan. This will leave just over 1 million acres of mixed farming land in the hands of relatively experienced farmers, and 150,000 acres to be operated by government as national or transitional farms. The old ranching and plantation sectors get little attention in the Plan, but the large-scale ranching area is to be extended as part of the range development programme which will include new government and joint government/private ranches in uninhabited areas where the potential for ranching is high.

The small-scale settlement farm programme has aroused widespread interest and a certain amount of controversy as well. The major part of the programme has already been carried out with tremendous speed: over 1 million acres being subdivided and settled in less than 4 years. The programme has undoubtedly been important in facilitating the departure of the European mixed farmers who wanted to leave, without causing a major decrease in production, and it has also been important in demonstrating that the government was being active in transferring European land to Africans, and providing for the landless and the unemployed. But from an administrative and economic point of view, the programme was too hurriedly planned and executed to be an undisputed success.

The settlement programme is usually assessed in terms of the performance of individual smallholders in meeting loan repayments and in reaching target income levels, and the success of the programme as a whole in intensifying the use of the land, increasing output and employment per acre. But successes in these fields mean little unless judged in relation to costs. It is not difficult to achieve an increase in the intensity of land use, given a high enough level of supervision and capital. The important question is whether the returns to capital and skilled manpower are higher in settlement than elsewhere. This may seem an obvious point, but it is so often missed in discussions of the settlement programme in Kenya, that it seems worth stressing again here.

The government has now decided to reduce the settlement programme because it is felt that settlement does not represent the best use of develop-
ment funds. But the comparison is made on somewhat arbitrary grounds, and there is no consideration of alternative types of settlement schemes. Settlement on the Kenya 'million-acre pattern' may be very expensive compared with development in other rural areas, but this does not necessarily rule out settlement of any kind. Uganda has some very low cost settlement schemes, for example, and if it is considered wise in Kenya to effect some sort of transfer in all the former European mixed farming areas, it might well be worth thinking about alternative methods, more efficient in their use of capital and skilled manpower than the present settlement schemes.

In Kenya, a major settlement programme has already been implemented now though, so it is important also to consider the future of the existing schemes. One of the major problems which the government has to face is the loan repayment problem. Appendix Table 8 in the Plan shows that 13 per cent. of the total had been overdue for more than 1 year at the end of 1965, and 62 per cent. for at least 3 months. According to Ruthenberg, the position is worse than it appears because many repayments have been made from down payments which individual settlers had to make when their applications were approved, and others have been made from income earned outside the schemes.

The settlers certainly start with extremely heavy loan commitments and there is now some doubt about their ability to repay, even if they are willing to do so. Loan repayments generally start 6 months after the settlers are installed, and they are phased rather inappropriately as far as their uses are concerned. A Government Mission has been looking into settlement recently, and it is hoped that they will come out with useful recommendations particularly on the loan repayment problem.

In many cases farm plans suitable for the plot sizes and ecological conditions have not yet been found, but it should be possible to remedy this. Ruthenberg maintains that most of the plots on high density schemes are too large for the hoe and too small for oxen, while on low density schemes they are too large for oxen and too small for tractors. But it should be possible to mix cropping with livestock where these problems arise. While it may still be necessary to do more farm planning work for some of the schemes, this should not present an unsurmountable problem as long as it is recognized. There may also be a need to look into the organization of marketing where this is not functioning well.

The schemes all begin with very intensive supervision and a much higher proportion of extension workers to farmers than in the former African small-scale farming areas. This makes it all the more important that they should show good returns. It was originally intended that the period of intensive supervision should be for 2½ years, after which the schemes would revert to normal levels comparable with other small-scale farming areas, and that they would then function under co-operative management. It has been found impossible to withdraw at the end of the 2½ year period, given the necessity to leave a viable organization specially for collecting loans, and the period has now been extended to 5 years. Careful thought
will have to be given to the process of disengagement if it is to prove possible to withdraw after another 2½ years. The performance of cooperatives, both on settlement schemes and elsewhere in the small-scale farming areas, suggests that it may not be possible even then to leave the centralized functions in their hands.

Thus while the government can decide to reduce the scale of the future settlement programme, and while it may be well advised to look at alternative means of settlement even in connection with the programme of the next few years, it is left with problems on the existing settlement schemes, and the necessity to continue to devote substantial resources to these, if they are to be productive small-scale farming areas that will at least be successful enough to repay their loans. The mission on settlement may come up with useful recommendations, and it is hoped that anyway it will stimulate some fresh thinking in relation to the present schemes.

The transfer of large-scale farms intact to African owners raises somewhat different issues, and more problems acknowledged in the Plan:

'. . . most African-owned large-scale farms have deteriorated since their change of ownership, many presenting a typical run-down picture with dilapidated buildings, dips and fences; high mortality among livestock; heavy drops in crop yields; deterioration of farm machinery; and misuse of land and pasture leading in some cases to bush encroachment. On many farms production per acre is estimated at only around 20 per cent of pretransfer levels.’ (Development Plan, p. 155.)

While many of these farms have not been subdivided, they have often gone to large groups of owners, many of them ordinary peasant farmers who have joined together and found the money to pay for a European farm and all that it symbolizes. These people have no experience in managing a large-scale enterprise. Other farms have gone to better-educated people, but also with little farm management knowledge. The government answer to this situation is to continue with the programme on a reduced scale, 250,000 acres over the next 6 years compared with 600,000 in the past 3 to 4 years, and to expand the training and supervisory facilities. There is to be a special service of extension officials for these farms, at present numbering 30 but to be expanded in the next year or so. There is already a training school with 80 places a year, and a second is to be built during the period of the Plan. The total cost of these educational and supervisory services will be £422,000, much of it recurrent of course.

But, given the government’s strategy of involving as many people as possible in the development process, is there any justification for spending so much on a programme such as this? There are 750 of these large-scale farms at present and the programme during the Plan period might bring the numbers up to about 1,000. Some of the people involved may benefit very little from the educational programme proposed, and it may be a waste to try to rehabilitate their farms by spending a lot of money on them. What is to stop the government from using the machinery already available, through management orders, on at least some of these grossly run-down farms?
In addition to these two major land transfer programmes, there is £5 million for the maintenance of transitional farms which would otherwise be neglected, and the purchase of national farms for the provision of inputs that are strategic in the agricultural sector. The transitional and compassionate case farms account for a major part of this expenditure, much of which is probably unavoidable. The national farm programme is more interesting: it is an imaginative answer to deficiencies in strategic inputs, some of which were becoming serious recently. The shortage of dairy cows, for example, in great demand in the former African areas, on the settlement schemes, and in the large farm sector itself, was becoming acute. The government acted quickly in acquiring two pedigree herds that were in danger of breaking up in 1965, but further action may still be necessary here. National farms are to be set up where the private sector cannot be relied on to provide inputs that are crucial to the agricultural sector, thus overcoming another problem created by the changed conditions in the large-scale farming sector since independence.

LAND REFORM IN THE FORMER AFRICAN AREAS

Land reform is generally recognized as a powerful development aid, as traditional land tenure systems are often such as to hamper the progress of modern small-scale farms. In Kenya, an ambitious programme of land tenure reform, involving the consolidation of fragments into single holdings and the registration of individual titles to land, has been under way since 1956. Kenya is the first country in Africa to undertake a major land tenure reform of this kind, and it may well serve as an example to countries where similar traditional land tenure problems arise. It is extremely important, therefore, that the programme be properly evaluated.

By the end of 1965, 1.6 million of the roughly 25 million acres considered suitable, had been registered, and over 3 million acres had been consolidated in preparation for registration. The Kikuyu, Embu and Meru districts north of Nairobi in Central Province were among the first to be consolidated and registered, with Nandi, Baringo, and Elgeyo-Marakwet further away to the north-west as well. Most of these areas were extremely crowded and seriously fragmented, and consolidation was necessary before the registration process. More recently the programme has been extended to various parts of Nyanza and Western Provinces and to Kajiado, one of the Masai districts, as well.

The Plan provides for an accelerated programme of land consolidation and registration, with the eventual aim of covering nearly all of the 12 million acres of farming land in the former African areas and 13 million acres of ranching land as well. In the first half of 1965/66, registration was running at 360,000 acres per year, at a cost of £605,000. The Plan allows for at least this much expenditure per year in future, and presumably higher acreages as the cost per acre is to be reduced.

While there is little doubt that some of this programme is useful and necessary, it is not so clear that it is important everywhere, or that it is necessary to proceed at such a speed. The expenditure of more than
£4 million in one plan period, 17 per cent. of the central government
development budget for agriculture, on a process of land reform which
cannot itself be directly productive, may have serious repercussions on
the rest of the economy. This, together with the land transfer expenditure
in the former European areas, makes the proportion of development funds
to be spent on transfer processes exceedingly high, with correspondingly
less funds and personnel available for direct development activities. The
cost in terms of skilled manpower is likely to be even more serious than the
money cost.

The arguments for consolidation are somewhat different from those for
registration, though the two seem to be treated together in the text of the
Plan. Consolidation has been important in the Kenya programme hitherto,
but it will be less important in future. Consolidation has several distinct
benefits: labour is saved, it no longer being necessary to walk, carry
manure, or move oxen and implements between plots; plots that are
isolated and too small to be worth cultivating on their own are brought
together in larger plots in which they can be used; and land wastage in
tracks and paths is reduced (although more land is usually allocated for
access roads, schools, markets and other public purposes). Consolidation
also makes farm planning much easier, and it makes possible economies
of scale in cultivating operations. It can make for an improved topographical
layout of farms as well.

But there are disadvantages in consolidation. The diversity made possible
by fragmentation can be advantageous, either in spreading risks such as
those of hail damage, or through ecological differences which make it
possible to run complementary farm systems spreading labour peaks
through the year. Highland cropping systems often fit in well with lowland
ones, which make demands on resources at different times of the year.
In parts of Kenya such problems are arising in the consolidation
programme, and there is talk of registering several fragments per holding
where there are distinct advantages in doing so.

The arguments for registration are not so strong, and it is registration
rather than consolidation which is to be important in the future programme
now. Registration can lead to a reduction in litigation, increased incentives
to invest, and the use of land as a security for credit. Litigation is certainly
costly in areas where registration has not taken place, but it is quite
possible that it will emerge again in the new system as well. It is by no
means clear that registration has settled the question of land rights and
inheritance to the satisfaction of the people concerned. There are holdings
registered in the name of one person but effectively owned by many; there
are others registered in the names of different people, effectively owned by
one. The whole new system of inheritance has yet to be tested among the
people concerned.

Investment incentives may be needed where there is real insecurity,
but the enormous amount of investment that has already taken place in
areas where there has been no registration makes one wonder if this is
an important argument here. It is argued that it is easier to get credit
repayments if land titles are offered as security too, but the loan repayment position shown in the Plan (Appendix table 3) gives no support to this. Central Province, the only area listed where land has been registered for any length of time, has one of the worst records of repayment at present. It is argued that registration is important as a prerequisite for loans from the World Bank, too, and that this in itself is a good reason to go ahead. But it might be possible to persuade even World Bank officials that there are more effective ways of enforcing loan repayments than the registration of titles to land. A pilot scheme could be set up to demonstrate this.

Arguments for registration seem to rest on the amount of insecurity that is felt over land ownership at present, and it might be advisable to give priority to areas where insecurity is evidently having an adverse influence on development now.

The consolidation and registration exercise has an important impact on the unemployment situation. It is argued that it will have a beneficial effect on employment, through increases in productivity that occur. But the immediate effect of consolidation is to throw up the landless and unemployed, making unemployment much more open than before. Unless it really can be shown that there are substantial positive advantages, there could be a case for holding back and keeping unemployment disguised where this is possible.

In general, the arguments for consolidation appear more forceful than those for registration alone. But the arguments for slowing down are strong. The strain on resources imposed by such an intensive programme will be substantial, and this strain could be considerably eased if the programme were slowed down. There are no apparent reasons for speed, particularly where consolidation is not involved and the growing numbers of permanent improvements do not therefore present difficulties.

Government policy on consolidation and registration is subject to revision when the report of the Lawrence Commission on land tenure reform is considered. It will be interesting to see what their conclusions are.

THE SMALLHOLDER CREDIT SCHEME

The land tenure reform programme is accompanied by more positive development measures to make it effective. Once land tenure has been altered so that it is no longer a brake on development in the small-scale farming areas (and it is argued above that this may not be necessary in many parts of Kenya at present), it is important to apply more positive development measures. It is becoming increasingly recognized that the development of small-scale farming sectors is a problem of techniques and education as much as anything else. This is the argument of Schultz, Mellor, and others whose views are widely accepted today. It is argued that the major limits to progress in small-scale farming areas in developing countries are in education and research, and that the low ratios of capital to labour and land are the result rather than the cause of their low stage of development. It is precisely because management and technical factors are lacking that capital investments are not profitable in agriculture at
present and the level of capital in small-scale farming remains low. Few people would go as far as to suggest that capital does not need to accompany extension and research, but many maintain that capital is not limiting in any direct way at present, and where capital is needed is in the development of extension and research.

This being so, it is surprising to find the World Bank Missions, in their reports on Kenya and Uganda, putting such a major emphasis on smallholder credit. The Kenya Government appears to have accepted this view and smallholder credit features as one of its most important development schemes now. In the Kenya Plan, £4.4 million is allocated to a smallholder credit scheme for 30,000 farmers in the areas of high potential ecologically. An additional £1 million or so is to be lent to smallholders who fall outside the main programme 'for administrative rather than economic reasons'. Thus the whole smallholder credit policy involves well over £5 million during the period of the Plan, over 20 per cent. of the central government budget for agriculture.

The experience of smallholder credit schemes in Kenya, which have been in existence since 1948, and through which nearly £800,000 of government credit has now been lent, does nothing but confirm the general view. Appendix table 3 in the Plan shows the present position. In 7 districts, representing half the total sum and more than half the number of loans given to smallholders since 1948, 16.7 per cent. have been overdue for more than 1 year, and 47.7 per cent. of the total sum due has not yet been repaid. While government officials have been bemoaning the fact that it is almost impossible to enforce repayment from Kenya smallholders, there has still not been any detailed study of the reasons for failure, particularly necessary when a large new programme is contemplated. There are indications that loans were often not needed on the farms, that they were directed towards the wrong kind of expenditure, and that there was a general misunderstanding on the part of the farmers as to what the loans involved. While the new programme is to be accompanied by a much increased supervisory staff, it is still by no means clear that our knowledge of the economics of the small-scale farms is sufficient to enable us to give the right kind of advice on loans, nor that even with the 30 per cent. increase in staff there will be enough technical and managerial experience to make a large-scale credit scheme work.

It is worth posing the question as to how short of capital funds the rural areas are, anyway. While we talk of the shortage of capital on the farms, we also talk of the possibility of mobilizing quite considerable savings from the small-scale farming areas in the period of the Plan. While we worry about finance for small farm developments we watch the accumulation of capital from coffee and other cash crops, the proceeds of which have led to an enormous increase in small-scale business, trade and transport activities in many rural areas. The funds that were forthcoming for low density settlement schemes, and for the purchase of large-scale farms in the former European areas were also astonishing. Ruthenberg quotes a figure of £700,000 in down-payments for low density settlement
schemes alone. And the continued existence of large numbers of native cattle can itself be taken as an indication of stocks of capital at present yielding relatively low returns. There are certainly indications that small farmers are prepared to sell their cattle when profitable investment opportunities arise. One of the most important questions for the economy may well be now to tap more rural capital funds.

Why is some of this capital not going into small farm development? And why can we not tap it for farm development now? There are many questions to which we do not yet have answers, but there are at least grounds for suspecting that a large-scale credit programme in the small-scale farming areas will not bring the dividends expected in Kenya at present, and it seems surprising that the government should be prepared to launch a programme involving the expenditure of £5 million, in a scheme for which there has been no pilot study, and in which much of the evidence available is negative. While it may be too late for a complete change in policy, there is a strong case for initiating a study of the credit situation so that the major programme can be designed with some probability of success.

**RESEARCH AND EDUCATION**

Research and extension services, which are not easily separable in the development estimates as some of these expenditures are included in particular programmes, are to get moderately increased funds according to the Plan, but the government does not appear to feel that there is a case for a greatly expanded programme here. The section on research in the Plan is too short to be very explicit, but there are indications that with the change in emphasis from large-scale to small-scale farming, research priorities will also change. Kenya still lags behind Uganda in research on small tools, implements, ox-drawn and mechanical aids suitable for smaller farms, and there has been relatively little research into husbandry practices and crop mixtures for small farms. The past concentration on plant breeding has produced many valuable results, but there is room for a considerable diversification in research activities, as the government now appears to recognize.

The extension programme is also to be enlarged and there is evidence of changes in outlook here as well. But there may be a case for a much more massive attack in this field, given increasing evidence on the importance of management factors on small-scale farms. There is a need to train farmers and lower level extension workers, but the need for additional training for the medium and high grades may be even more important. The Plan states that planned and existing educational facilities will provide only half of the university level, diploma level, and technical assistant level personnel. Of the other half many will have to be non-Kenyans, and in some professions the shortages will undoubtedly be serious. This may well prove to be the major stumbling block in the agricultural Plan.
The detailed crop and livestock programmes cannot be examined here except in general terms. There are some questionable priorities, as for example in the enormously expanded sugar production programme at a time when Uganda is searching for markets for her sugar, and the moderate targets for beef for which the prospects are extremely good. But the most interesting general feature of the detailed crop and livestock programmes is the attempt to make projections for many crops down to the district level. While it may be useful to begin to build up district production figures, there is a danger in using these rigidly at a stage when our knowledge and understanding of the economics of small-farm production in different districts is not sufficient to support the detailed plans. While it makes sense to encourage crops that look good, the field judgement as to which are most economic in different farm production situations is still in most cases best left with the farmer until we know more about the different farming patterns. We still cannot really afford to dispense with price and market indicators as the major tools for getting an efficient distribution of small-farm production in Kenya. And it may be dangerous to build up detailed district plans except as general guides within which flexibility is allowed. To quote an example from Tanzania: farmers in the west happily show visitors their acre of cotton 'for themselves' and their acre of sisal 'for the President'. They know that sisal is uneconomic, but as 'the President wants it' they grow it for him.

Where it is still necessary to rely largely on market indications and incentives for farmers, it is important to ensure that the market functions well in this respect. It is important that market prices do reflect scarcities in the economy as a whole, and that marketing inefficiencies or manipulations do not lead to inefficient farm production decisions. The role of the market in determining production patterns sometimes tends to get neglected in Kenya marketing discussions.

THE BALANCE OF THE DEVELOPMENT PROGRAMME

The emphasis in the Plan is on areas of high potential for agriculture or for ranching; the areas which are poor and heavily populated get little attention throughout. The areas where natural conditions are marginal for agriculture, but population is sparse can be used for ranching, and the Plan provides an ambitious range development scheme which should enormously improve their position. But in similar areas where population is dense it is not possible to develop livestock economies. It is in the densely populated marginal areas that the major famines in Kenya occur, and it is surprising that the Plan, written so soon after a famine year, should not consider the possibilities for developing these. In 1962, the country spent more than £5 million on famine relief, and in 1965 the cost was heavy again. Would it not be wise to try to lessen these unexpected emergency costs, by spending money on development in between?

The neglect of famine areas may be due to a pessimistic attitude towards their development, and a feeling that nothing much can be done.
But there is no reason why this should be so. With the development of new varieties of drought-resistant maize it begins to look as though the famine areas may be able to feed themselves, even in drought years, and there is always the alternative of developing cash crops such as cotton which survive the drought relatively well, and using these to provide an income with which to buy food. The big problem there is in the present maize price structure, though. As long as a district that is short of maize has to buy maize at the high consumer price, it will be extremely difficult to provide a cash crop that is lucrative enough in the drought years to provide for food needs; and as long as the price of maize in drought years is so high, it will be difficult to persuade people not to grow maize. There are no good reasons to be pessimistic about the famine areas at present, and it is a pity that there is so little for them in the new Development Plan. The country can ill afford the massive emergency famine expenditures, and there are real possibilities of reducing these.

The Plan also tends to favour the progressive rather than the mediocre farmers, and this again may not be wise. The smallholder credit programme, for which this is explicitly stated, is the major example, but there are indications of this attitude throughout. Much of the rest of the development programme is geared towards the smallholder credit people, and there is a danger that in concentrating so heavily on the few, progress will be slower than it could be otherwise. Why is it assumed, for example, that extension services are wasted on all but the best? Why is it considered that returns to improved inputs are always greatest on the better farms? Might it not be true that there is more to be gained on the farms that have lagged behind? It has not been clearly established that the highest returns to development activities are on the best farms, and it may be unwise to place too much emphasis on this relatively small group.

Finally, there is a question about criteria. There is little in the Plan to indicate that the right comparisons have been made. What made the planners decide to spend more on tea and less on beef? How can they justify the smallholder credit programme, not in isolation, but compared with the programme for the expansion of the extension services, for example? There are no discussions of alternatives: projects are justified, not as the best use of resources, but as good on their own. Any project can look attractive when there is no alternative. The question is not whether it is good but whether it is the best.

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| TABLE 1  
CENTRAL GOVERNMENT DEVELOPMENT EXPENDITURE ON AGRICULTURE AND LIVESTOCK, INCLUDING LAND REGISTRATION AND SETTLEMENT  
1965/66 — 1969/70  

<table>
<thead>
<tr>
<th>Former African Areas</th>
<th>£ million</th>
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<tr>
<td>Land consolidation and registration</td>
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<tr>
<td>Smallholder credit</td>
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<tr>
<td>Development of pastoral areas</td>
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<tr>
<td>Irrigation</td>
<td>1.80</td>
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<tr>
<td>Tsetse control</td>
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<td>Settlement</td>
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<td>Rural development schemes</td>
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<td>Million acre settlement programme</td>
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<td>1966/70 settlement programme</td>
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</tr>
<tr>
<td>Land transfer to large-scale farmers</td>
<td>3.10</td>
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<td>National and transitional farms of other kinds</td>
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<td>Research not included elsewhere</td>
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<tr>
<td>Education and training</td>
<td>0.60</td>
</tr>
<tr>
<td>Agricultural Development Corporation</td>
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<td>Soil conservation</td>
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<td>Tea</td>
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<td>Sugar</td>
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<td>Wheat</td>
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<td>Passion fruit</td>
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<td>Beef</td>
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</tr>
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<td>Dairying</td>
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<td>Sheep and goats</td>
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</tr>
<tr>
<td>Pigs</td>
<td>0.09</td>
</tr>
<tr>
<td>Other</td>
<td>0.19</td>
</tr>
</tbody>
</table>

| TOTAL | 38.43 |

1 Includes national and transitional farms, compassionate case farms, and abandoned and mismanaged farms in the plan table.  

References  
1 Kenya Government, Development Plan 1966-1970; which will be referred to as 'the Plan' throughout this article.  
Kenya's Agricultural Development Policy


2 Development Plan, p. 149.

3 Harbeson, *op. cit.*, considers that the isolation of the settlement administration from rural provincial and district development teams has contributed to the lack of discussion here. He suggests that had settlement been integrated there might have been more discussion on the competition between settlement and other areas for extension services, for example.

4 Harbeson, *op. cit.*, p. 82.


6 Ruthenberg, *op. cit.*, p. 75.

7 In Clough's survey which included 44 farmers on 2 low density schemes and 51 farmers on 2 high density schemes, 'all the settlers in the survey had borrowed at least 90 per cent. of the total capital used on their farms . . . ', Clough, *op. cit.*, p. 105.

8 As an example of this: 'settlements were allowed to purchase short term cropping items such as seed, fertilizer, and contract ploughing on five year loans. This means that settlers will not complete repayment until four years after the crop that was planted with the loan is harvested', Clough, *op. cit.*, p. 106.

9 Ruthenberg, *op. cit.*, p. 75.

10 According to Harbeson, 'the number of settlers per staff member is lower than for any other department, in some cases by a factor of ten', *op. cit.*, p. 17.

11 See general goals on pp. 56 and 57 of the Plan.


14 Excluding most of the land transfer programme in the former European areas, which is to be financed separately by the British Government, and which is treated separately in the Plan.

15 Holdings below a certain minimum size can only be transferred to one of the holder's sons.

16 J. D. MacArthur, *op. cit.*, 'The fact that they (the World Bank) even contemplated an application (for smallholder credit) of such a size is explained . . . by the fact that the finance is to be used on land whose ownership is registered' p. 10.


21 Small African farmers and businessmen together are expected to save about 25 per cent. of their increased incomes, amounting to a total of £5 million. Development Plan, p. 93.

22 The present maize price structure puts a premium on maize growing in areas which are periodically short of maize, often the least suitable areas in the country for maize.