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LAND REFORM FOR THE BETTERMENT OF CARIBBEAN PEOPLES*

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I am concerned, in this paper, in setting out the fundamental issues concerning the land problem in the Caribbean.[1] The orientation of the discussion is theoretical and the intention is to place the land reform question in the general perspective of the social welfare of the peoples of the region. Since the majority of the population of these islands depend on some kind of rural activity for a livelihood, the land problem is one of supreme importance.

The title of the paper suggests that land reform is necessary for Caribbean development. This assertion will be substantiated in the discussion to follow. Even the most casual observer of the West Indian scene will recognize the need for land reform. Yet this field of enquiry has hardly been explored by economists of the region. Hence the need for spelling out the issues involved in a way that will stimulate attention and provide general guidelines for policy. That, precisely, is my intention in writing the paper.

The exposition is sequenced as follows. The first section clarifies the basic concepts underlying the analysis; land reform and rural development are defined in the specific context of our analysis. The second section summarizes the evidence concerning certain economic effects of land reform in other Third World countries. This is considered necessary since only Cuba among the Caribbean islands has any experience in this connection. (The government "land settlement schemes" in several islands do not, in my opinion, fulfil any of the requirements of land reform. And the Cuban experience will be dealt with at the Conference by others who have the basic information.)

The third section presents an analysis of the likely effects of land reform on agricultural development in the Caribbean. That analysis places the Caribbean reality in the context of the experience elsewhere; and it makes projections of probable effects. The fourth and final section looks at land reform in the region in the broader context of overall development.

Land Reform and Rural Development

We need to open the discussion with two basic questions. First what do we mean by land reform? And, secondly, land reform for what?

The term "land reform" has tended to mean different things to different people. In general, it relates to some distributive change in the ownership and rights to the use of land. As Warriner looks at the contemporary world scene, "Methods of distributive reform may be classified as (i) *integral,* i.e. redistribution of ownership carried out together with other institutional changes designed to increase agricultural productivity; and (ii) *simple,* i.e. redistribution only, with little or no support from other measures."

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1 The discussion relates directly to the English Speaking Caribbean because I am more familiar with conditions in those islands. Nevertheless, I am of the opinion that the paper is more generally related to all the islands of the Caribbean, with the sole exception of Cuba. Where empirical support for the argument is necessary, data for Jamaica are used. But the general framework of the analysis fits most Caribbean islands. Data for any island can be marshalled to fit into the general framework.

2 Doreen Warriner. "Results of Land Reform in Asian and Latin American Countries." A paper presented at a Conference on Strategies for Agricultural Development in the 1970's held at Stanford University, 13-16 December, 1971 (mimeo.) p.3.

In practice, integral reform has involved a very short list of institutional changes; credit and extension being the chief areas of concern. And, as indicated, above, the objective of these supporting changes is to increase agricultural productivity. I think that it will be useful for us to introduce an extension of the concept of "integral reform". A higher stage of integral reform is one which involves redistribution of ownership along with changes in *all* the institutional factors that govern the mobilization of rural resources with the objective of a betterment of the welfare of rural people. I will call this method *institutional reform.*

Institutional reform is significantly different from integral reform. The latter is designed to increase productivity while the former is concerned with the economic and social welfare of rural people. The point is that increased productivity can be achieved without any significant change in the welfare of people involved. In other words productivity improvements are necessary but not sufficient to guarantee an increase in welfare for the society as a whole.[1]

This brings me to the second question posed: land reform for what? Conventionally, land reform is considered as an instrument for agricultural devleopment. But, again, the term "agricultural development" means different things to different people. Judging from the literature, most economists seem to equate the growth of output (and productivity) with development. At best, they seem to consider agricultural development as a sustained increase over time of the incomes of farm people. The latter interpretation appears to be the generally acceptable one.

In this context, redistribution of ownership (i.e. simple reform) is viewed as an instrument for reducing inequalities in the distribution of farm incomes. In so doing, it raises the levels of income for large numbers of people who secure access to the use of land as a result of the reform. And then it is assumed that increases in productivity - to be achieved by supporting measures to provide credit and extension to the new owners (i.e. integral reform) - will guarantee a sustained rise over time in the incomes of the people involved.

My own concept of development goes somewhat beyond this conventional view. In my view, development is a process by which improvements in the economic and social welfare of people are consistently achieved over time. In this connection, raising the levels of farm incomes and reducing inequalities in the distribution of that income among groups involved in farming is important. But we need to go further: (i) to reduce the inequalities in the distribution of income for all groups in the society (including farmers); (ii) to ensure that the society's resources (natural and human) are conserved, and their quality improved, to generate welfare improvements for future generations; (iii) to secure a systematic improvement in the 'quality of life' of all people in the society.

I prefer, therefore, to address my mind to the subject of rural development instead of the more narrow concept of "agricultural development".

The implications of this approach are clear. For one thing, we must recognize that land reform *alone* cannot bring about the kind of development envisaged here. Another consideration is that land reform, as we conceive the term, must encompass all uses of land. Not just farm land but all land - land for farming, for forestry, for mining, for recreation including tourism[2] for urban development, etc..

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1 The integral approach to land reform focusses on productivity change because it is assumed that redistribution of ownership brings about an immediate improvement in the welfare of those who get land and that increases in productivity will be sufficient to sustain this change in welfare. Institutional reform, as I conceive the term, is concerned with the welfare of the whole society in general and the rural society in particular. As such, economic as well as social parameters come into play.

2 I have deliberately placed tourism as a subset of "recreation" because I am of the view that the recreation of visitors must be fitted into the recreational infrastructure *for nationals.* This is a dramatic departure from the current pattern of developing enclave holiday industries geared exclusively to visitors, as practised in the Caribbean.

This is a rather tall order. But it seems to me that this is the only useful approach to the land reform question for islands in which land is already a scarce resource and in which population growth coupled with economic diversification are likely to intensify the competition for the use of land in the future.

So much for the conceptual framework which is the infrastructure for the analysis to follow. To summarize, I am arguing for an 'institutional' approach in looking at the land reform question; and land reform is viewed in this context as an instrument for a sustained betterment of the economic and social welfare of the people that live in these societies.

Land Reform and Economic Change - A Summary of the Evidence

Before addressing our minds to the specific case of the Caribbean, it will be useful to look briefly at the results achieved in other parts of the Third World which have implemented some measure of land reform. The evidence presented in this section draws heavily on the work of Adams and, to a lesser extent that of Warriner.[1] And it is based on the experiences of land reform in a number of countries in Asia and Latin America.[2]

Adams provides us with a useful summary of the evidence "regarding five major economic issues related to land reform". These are the effects of land reform on (i) production (output), (ii) capital formation, (iii) income redistribution and effective demand, (iv) employment, and (v) technological change and structural transformation.

Production

The evidence here is based on an examination of the relationship between land reform and production in the short run. Evidence has been assembled using two different approaches: country reviews, and determining the production impact at the project level. Additionally, some economists have used economic theory with empirical information to deduce the likely effects on production. The general conclusion that emerges is, in Adams' words, that "... almost never does land reform decrease production, occasionally it has a neutral effect, most often it has a positive impact."[3]

Of special interest to us is the experience of Brazil where the general social framework is somewhat similar to that of the Caribbean. It is worthwhile, therefore, to look at that case in a little more detail. Cline, in his study of Brazil,

> "... argues that land reform which includes breaking up of large land holdings will significantly increase output. He bases his argument mainly on the elimination of (1) labor-market dualisms, (2) the holding of land as a store of value, (3) land market imperfections, and (4) monopsony powers in the rural labor markets . . he also concludes that the economies-of-scale argument against land reform has little merit."[4]

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1 See, in particular, Doreen Warriner, *op. cit,* and Dale W. Adams. "Comment on Doreen Warriner's Paper." A paper presented at the Conference on Strategies for Agricultural Development in the 1970's. Stanford University, 13-16 December, 1971 (mimeo.).

2 Land reform so far has not attracted much attention in the countries of sub-Sahara Africa because of the established communal patterns of land ownership and the abundance of land there relative to population.

3 Dale W. Adams. *op. cit,* p.3.

4 *Ibid.* pp.2-3.

The empirical evidence provided by Cline appears to lend strong support to his theorectically deduced hypotheses.[1]

Capital Formation

The evidence regarding the effects of land reform on rural capital formation is said to be less conclusive than that relating to production. And Adams summarizes what evidence is available as follows:-

> "My conclusion is that land reform will not transform the rural capital base overnight. Some evidence is available to suggest, nevertheless, that it, along with other appropriate policies, can help accelerate this accretionary process."[2]

The provision of credit facilities would seem in most instances, to be a necessary part of the bag of "appropriate policies" to ensure a positive impact on capital formation. Hence the need for an integral approach to land reform, at the least.

Income Redistribution and Effective Demand

The markets for industrial goods in most underdeveloped countries tend to be small because the bulk of their populations - consisting mostly of rural people - have low incomes. In so far as land reform serves to raise the incomes of these people, effective demand for such goods (and services) is expanded. And if the resulting final demand linkages can be internalized to the national economies, this provides spread effects for industrial development.

There is very little empirical evidence to assess how significant this impact has been where land reform programmes have been introduced. But Adams states that:-

> "I am always impressed after periodically visiting rural areas of Taiwan and Japan how rapidly mass consumer markets have extended into societies where land reform has been carried out. The presence in rural Taiwan of radios, sewing machines, television sets, bicycles, power tillers, and motor bikes have mushroomed over the 13 years I have known the country. Peasant consumer purchases in Northeast Brazil, Guatemala and Colombia, on the other hand are static.[3]

No hard evidence here.

Adams is dealing only with land reform and the effective demand for industrial goods. But, as I shall argue later,[4] there are as well significant final demand linkages for agricultural commodities since most underdeveloped countries are characterized by low levels of food consumption (in terms of quality, if not quantity) by the bulk of their population.

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1 See, William P. Cline, *Economic Consequences of a Land Reform in Brazil.* (Amsterdam, 1970) and more recently, his "Interrelationship Between Agricultural Strategy and Rural Income Distribution." A paper presented at the Conference on Strategies for Agricultural Development in the 1970's. Stanford University, 13-16 December, 1971 (mimeo.).

2 Adams, *op. cit.* p.4.

3 *Ibid.* pp.4-5.

4 See Section III below which examines the Caribbean situation in the light of experience elsewhere.

Employment

Again, there is little or no evidence on the effects of land reform on employment. Very few studies have been done on this aspect. It can be deduced (theoretically) that under certain conditions, land reform could lead to an increase in employment. On the empirical side, Adams puts forward evidence from a sample of one. He states:-

> "One parcelization project which I studied in the tobacco region of Columbia suggests that employment can be substantially increased through land reform. . . The project only included 1,500 acres, but over 850 people were making a very satisfactory living from the land six years after parcelization. This was up sharply from about 70 people who lived there prior to division. A traditional *hacienda* with some cattle and tobacco share-croppers located nearby, but with much better land provided a living for only 230 people."[1]

Unfortunately, Adams does not make any comparison between the levels of living of the 230 people on the traditional *hacienda* with those of the 850 on the parcelization project. Nor are we told the size of the *hacienda* in his comparison.

In any event, we cannot generalize from a sample of one. Whether or not land reform will lead *directly* to an increase in employment depends on the initial conditions. This need not detain us here. What is certain is that land reform is likely indirectly, to increase employment. This follows from the proposition that if land reform generates an increase in effective demand, the resulting final demand linkages are bound to create *new* job opportunities.

Technological Change and Structural Adjustment

Empirical evidence is weakest in respect of the relationships between technical change and land reform. Among economists concerned with agricultural development there seem to be two distinguishable schools. The neo-classical allocationists (Marshallian) group view the development problem in terms of how to achieve improvements in productivity via technological change. The classical structuralists (institutionalist, Ricardian at worst) group, on the other hand, view the problem in terms of changes in the institutional environment. The two groups appear to be at odds with each other.[2]

The allocationists seem to argue that "new technology creates a new economic environment which in turn induces almost automatic adjustments in the structure of the economy".[3] This is basically the Ruttan-Hayami position. (Elsewhere, I have considered their view of the development process at some length.)[4] In their view, land reform is not the important issue. The structuralists, on the other hand, claim that new technology will have very little welfare effects in most situations unless gross inequalities in the distribution of land ownership are corrected. So far the evidence seems to support the structuralists. The so-called "Green Revolution" and other recent technological changes seem to benefit only the small group of better-off farmers in most underdeveloped countries.

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1 Adams, *op. cit.* p.5. The reference to his original study is Dale W. Adams and L.E. Montero. "Land Parcelization in Agrarian Reform: A Colombian Example." *Inter-American Economic Affairs.* (Winter 1965), pp.67-71.

2 Among the leading spokesmen for the "allocationists" are Schultz, Ruttan and Hayami. While Flores, Adams, Caroll and Barroclough are among the leading structuralists. I place myself, of course, squarely in the structuralist camp.

3 Adams, *op. cit.* p.6.

4 See my "Strategies for Agricultural Development: Summary and Comment." A paper presented at the Conference on Strategies for Agricultural Development in the 1970's. Stanford University, 13-16 December, 1971 (mimeo.).

Summary

To sum up, the experience of land reform in several countries where it has been introduced, indicates that the long-term effects of land reform are likely to be favourable in respect of expansion of production (output), capital accumulation, market expansion and income growth. As well, land reform can be expected to promote improvements in social welfare, by way of a favourable impact on the distribution of wealth and income; and through its capacity to generate employment. The sum total of these effects will be to stimulate long-term economic growth of a kind that disperses benefits widely throughout societies which, previously, were characterized by excessive concentration of land ownership.

Land Reform For Agricultural Development in the Caribbean

It is against this background of evidence from experiences elsewhere that I wish now to consider the case for land reform in the Caribbean. The discussion is presented in two parts - first, land reform in relation to agricultural development *per se;* and, secondly, in relation to the overall advancement of the peoples of the region (including, of course, rural people). This section deals with the first and the section to follow considers the second.

The Land Problem and Rural Poverty in the Caribbean

The basic structure of Caribbean agriculture is a legacy of the slave plantation system. By the time Emancipation came the land in most of the Leeward Islands had been totally engrossed by plantations. In the Windward Islands and Jamaica, there was some land of inferior quality left. In Trinidad, Guyana, Puerto Rico, Dominican Republic and Cuba, there was still relatively abundant supplies of good agricultural land. In the period since Emancipation, the fate of black people (the ex-slaves) has depended ultimately on whether or not they could find land on which to settle on their own account. To the extent that they could achieve this in some places, a viable peasantry emerged.

For the most part, then, Caribbean agriculture today is characterized by "dualism", with a plantation (estate) sector controlling the best quality land and a peasant (small farm) sector with generally poor quality land. There is an intense conflict between the two sectors; but in the competition for land and other resources, the plantation sector has a strong advantage.[1] And with high rates of population growth in the peasant communities, pressure on land in the peasant sector has become very acute. In many islands, this pressure has been further intensified recently by developments in tourism and mining. The economic position of the peasantry would have been far worse than it is at present were it not for heavy migration - both external and internal - which served to siphon considerable numbers of people off the land.[2]

The present distribution of land between the plantation and peasant sectors is grossly unequal everywhere, except in Cuba. The majority of all farms are small in size but these occupy a very small share of the farm land, and the worst quality land at that. As an example, in Jamaica (which is reasonably representative of the situation in the region), farms under 5 acres in size represent 71 per cent of all farms in the country but these occupy only 12 per cent of total farm acreage. On the other hand, farms of over 500 acres are 0.2 per cent of all farms; yet these control over 45 per cent of total farm acreage.[3] When account is taken of quality differences, the pattern is even more ugly than these data suggest.

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1 Elsewhere, I have analysed and documented the nature of the peasant-plantation conflict in the West Indies. See my *Persistent Poverty*. (Oxford University Press, New York. 1972) pp. 21-29.

2 These more recent trends are considered later in the context of overall development in the next section. Here we may note that one of the social costs of high internal migration has been the growth of unemployment and the mushrooming of urban slums.

3 These data are from the 1961 Census of Agriculture. It is anticipated that the Dept. of Agr. Econ. at St. Augustine will be preparing tables providing similar and more up-to-date statistics on all the islands for the conference.

In absolute terms, a handful of 350 farmers control 45 per cent of farm land in Jamaica while 114,000 farmers (approximately *570,000 people,* assuming average household size of 5) are forced to eke out an existence on a mere 12 per cent of total farm acreage. Each household in the small farm sector exists on an average of 1.8 acres. By way of contrast, each household in the plantation sector earns income from an average of 2,211 acres.[1] Oh what a wicked situation!

In the circumstances, it is not surprising that the levels of income of the peasantry are much lower than those of most other groups in Caribbean societies. Apart from the unemployed and the petty trades and services, small farmers are probably the lowest income earners. This may be offset somewhat by their consumption out of their own food production. But the standards of housing, clothing, medical care, education, etc. are generally at very deplorable levels. Even in food consumption, malnutrition is fairly widespread among this group of people, since they rely heavily on purchased supplies of the more protective foods.

Now the bulk of the rural populations in all the islands is concentrated in the peasant sector. Indeed, the peasant population is probably a majority of total population in many islands. In any event, this sector supports a greater number of people than any other single sector of the economy in most places. Consequently, any improvement in the welfare of people in the peasant sector will have important significance for the societies as a whole.

This, of itself, is a powerful argument for drastic redistribution in favour of the peasantry. But let us proceed beyond this: to ascertain, as best as possible, what the effects of land reform are likely to be in relation to specific aspects of agricultural development.

Probable Economic Effects of Land Reform

Of all possible alternative policies, land reform provides the greatest potential for agricultural development in the Caribbean. Land reform offers most scope for achieving, at one and the same time, income redistribution, increased employment, and expanded output. Indeed any other policy for agriculture is likely to fail in the absence of drastic redistribution of land. Improvements in technology over the past few decades, for example, have not benefitted the small farm sector to any significant degree because of a chronic shortage of credit and land in this sector. As I have argued at length elsewhere, the dualistic nature of West Indian agriculture creates fractured markets for agriculrural resources, price distortions in product and factor markets, inequalities in the distribution of wealth and income, and limited technical knowledge about production possibilities all of which pose formidable obstacles to development.[2]

Although agricultural resources (other than labour) are highly concentrated in the plantation sector of West Indian agriculture, that sector historically has displayed a low propensity to adjust its product mix. The plantation sector specializes in the production of specific crops (usually for export); and there is little or no variation in this pattern over time. On the other hand, the peasant sector has displayed a high propensity to innovate. Diversification of West Indian agriculture after Emancipation came mainly from the efforts of the peasantry.[3] Small farmers generally practise mixed cropping, and they display far greater flexibility in patterns of resource use than plantations. Since the process of agricultural development involves a flexible deployment of resources as patterns of consumption change, redistribution in favour of the peasantry would enhance the process of development.

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1 It would be superfluous to add that household size on small farms normally exceeds that on plantations.

2 See my *Persistent Poverty, op. cit.* Ch.7.

3 The plantation owners strongly resisted changes. Black peasant producers, for example, established the Jamaica banana industry which, at the end of the 19th century, the white planters regarded as "backwoods nigger business".

Additional agruments in favour of a viable peasantry in the West Indies are suggested by McIntyre:

> "... Since peasant agriculture is more labour intensive than estate agriculture, its techniques are probably better adapted to the requirements of a labour surplus economy ... because of these differences in techniques, peasant agriculture may bring in more net foreign exchange per acre because its import content is lower than that of the estate sector. Finally, the peasant sector may contribute more to the National Income on a per acreage basis, because there is no foreign ownership over peasant production."[1]

Redistribution of land away from plantations to the peasantry can therefore be expected to increase employment[2] and *national* income, and to expand net foreign exchange earnings of the agricultural sector.

In the West Indian context, land reform on a national scale would promote agricultural development in so far as it generates a significant income redistribution. To achieve the latter an integral approach to land reform is necessary. Income redistribution would contribute to development in at least two directions: an expansion of effective demand and an increase in capital formation.

The existing low levels of farm incomes limit the size of the domestic market for many industrial goods; and this serves as a constraint on the development of the industrial sector. Since a substantial share of the population depends on farming for a livelihood, an increase in farm incomes would widen the market for industrial goods considerably. As well, levels of food consumption are generally low and the bulk of the population now have a small effective demand for the protective foods.[3] Redistribution of income in favour of the peasantry would raise effective demand for such foods which are currently imported for the most part. And because of the greater flexibility of resource use by the peasantry, import displacement opportunities in food production could be taken up.

At present, the agricultural sectors of all Caribbean economies are characterized by low rates of capital formation. This derives partly from the fact that low levels of farm incomes restrict rural savings (and investment). Redistribution of income would raise the level of savings and contribute to higher rates of capital formation in agriculture.[4]

The most important economic effects of land reform in the Caribbean context are to be found in the areas of increased *production and employment.* Since there are some available data on these matters an attempt is made below to project some likely effects, for one of the islands. But before that we consider briefly, the reasons why redistribution can be expected to lead to increased output (production).

"The two principal issues that affect land reform's impact on production are whether economies of large scale production exist, and whether land utilization does in fact decline as farm size (in area) rises.."[5]

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1 Alister McIntyre. "Some Issues of Trade Policy in the West Indies." *New World Quarterly.* Croptime 1966.

2 Some projections of the impact of land reform on employment are made below.

3 These include meat, milk, dairy products, eggs, fish, vegetables, and fruits.

4 Even if the marginal propensity to save by peasants is lower than that of plantation owners, the marginal propensity to invest in productive assets within the country is likely to be much greater for peasants, so long as reasonably attractive investment opportunities exist. Hence, a further point in favour of an integral approach to land reform.

5 William, R. Cline, *op.cit.* p.11.

So long as returns to scale are more or less constant, the fragmentation of large units will not raise costs of production. The chief reason for possible scale economies in agriculture derive from the fact that "minimum areas are required to utilize certain farm machines". However, in labour surplus economies, like the West Indies, machine capital as a substitute for labour is unprofitable in both economic and social terms.[1] And even if profitable, machine pools can be used to get around the farm size constraint. As Cline concludes, "the agricultural economies of scale argument warrants little weight in the context of the developing countries."[2]

For the Caribbean, census data reveal that, in general, land utilization declines as farm size increases. There are several reasons for this. There is the historical tendency of plantations to monopolize land in order to secure their labour supplies. Then there is the consideration that in land-short economies, land is a store of value - a portfolio asset which can yield high capital gains. Furthermore, land ownership by the planter class is viewed as a social asset since it enhances the owner's social status. In short, for all these reasons land owned by plantations tend to be underutilized.[3]

An Exercise on the Probable Effect of
Land Reform on Production and Employment in Jamaica

David Edwards has assembled some data from the 1961 Census[4] which permit some empirical assessment of the likely impact of land reform on production and employment. The analysis here is based on those data.

First, the general picture of the current situation. Small farms utilize land much more intensively than plantations. Farms under 5 acres (small farms) used 12 per cent of the country's total farm land to produce 24 per cent of total agricultural production. On the other hand, farms over 500 acres (plantations) occupied 45 per cent of all farm land but produced only 41 per cent of total production. The productivity per acre of farm land is therefore more than twice as great on small farms than on the plantations. The reason for this is that small farms use farm land much more intensively. Cultivated area as a proportion of farm land was 59 per cent for small farms as compared to 25 per cent for the plantations. As concerns employment, small farms utilized 49 workers per 100 acres of farm land in contrast to 4 for plantations; per acre of cultivated land, the numbers are small farms 84 to plantations 17.

The situation in relation to productivity is summarized in the following tabulation which shows production valued inconstant 1954 £:

	Small Farms (< 5 Acres)	*Plantations* (500+ Acres)
Output/Acre farm land	33	15
Output/Acre cultivated land	57	60
Output/Man	68	345

1 Unprofitable in economic terms if there were no price distortions in the factor and product markets. Appropriate shadow pricing will bear this out.

2 Cline, *op.cit.* p.11. In this connection see also E.J. Long, "The Economic Basis of Land Reform in Underdeveloped Economics." *Land Economics.* May 1961.

3 For further discussion on these matters, see my *Persistent Poverty.* pp.88-97, and Ch. 6.

4 D.T. Edwards, "Agricultural Development in Jamaica 1943-1961." A paper presented at the 3rd West Indian Agr. Econ. Conference, Mona, Jamaica, April 1968 (mimeo.). See Appendix Supplement accompanying this paper for the background data used in arriving at the projections here.

A few comments on these data. Production per acre of farm land on small farms is more than double that on plantations. The reasons for this were already advanced. Output per acre of cultivated land is roughly the same for the two sets of farms. But we need to recognize that small farms are using land of a lower quality and that they utilize far less "modern" inputs, than plantations. My speculation is that given land of equal quality and a suitable package of modern inputs, productivity per acre of peasant *cultivated* land would exceed that on plantations by a significant margin.

Output per man is not a very useful index of labour productivity but man-hour data are not available. Given the small size of the under 5 acre farms (averaging 1.8 acres) it is unlikely that the family labour of the small farmer is utilized in production as much as paid labour on the plantations. So that the difference in labour productivity indicated above would be narrowed. However, a higher labour productivity is to be expected from plantation production since this involves large doses of modern inputs (including machine capital).[1] Once again, labour productivity on small farms could be raised to respectable levels if modern inputs become available to their owners.

These comparisons suggest that a land reform programme which fragments the plantations into small farms would increase both employment and output. In addition, the productivity data argue strongly in favour of a programme which utilizes an integral approach.

To continue the exercise, let us try to quantify the probable effects using two different approaches, the simple and the integral. The analysis is cast in a static mold, and it assumes that all farms of over 500 acres are broken up into 5 acre farms. This is an extremely simplified redistribution and assessment model. Farms over 500 acres occupied 774,000 acres in 1961. This would make 154,800 five acre farms (more than the 113,200 which existed in 1961).

The *simple* method of redistribution would expand employment and output as follows:

(i) 379,260 workers would be utilized in contrast to the present 30,960 (an additional 348,300 jobs) and,

(ii) production would more than double (from £5.7 million to some £12.5 million for 1961, expressed in 1954 prices. The resulting output being some 60 per cent of total agricultural output in 1961).

These projections assume that the new small farms will have the same levels of productivity, farm the land with the same intensity, and utilize the same techniques as the small farms existing in 1961. Output could be raised even further if an integral method of reform is used to provide modern inputs on the new farms, and if land use intensity is raised above the 59 per cent of 1961. Another consideration is that the shift to 5 acre farms would provide more jobs than the labour force could supply; so that a shift to farms in the 5-25 acre group would be a more realistic exercise.[2]

Using the *integral* approach to land reform would produce better results, in terms of both output and income. The minimum institutional changes needed to increase productivity would be in the areas of credit and extension, in order to encourage the use of modern inputs. A substantial share of the difference in productivity per man between small farms (68) and plantations (345) derives from the following differences in the use of modern inputs per 100 acres of cultivated land:

	Small Farms	*Plantations*
Animal & tractor power (h.p.)	6	25
Fertilizers (cwt.)	45	352

1 Note here that productivity gains resulting from the substitution of machine capital for labour in labour-surplus economies is socially undesirable. So that we must discount part of the higher labour productivity on plantations.

2 Farms of 5-25 acres utilized 19 workers per 100 acres of farm land. Redistribution into farms of that size would provide employment for 147,060 workers.

Plantations used nearly 8 times as much fertilizer as small farms and over 4 times the power. The integral approach is clearly the better alternative since it would raise output higher than the simple approach and at the same time generate employment *at reasonable levels of income.*

Land Reform for Overall Development

Any programme that stimulates agricultural development in the Caribbean context will benefit the society as a whole since agricultural development is critical for overall development of the economy. Furthermore, an improvement in the material welfare of a large segment of the rural population would create tremendous welfare benefits for the society as a whole.

The impact of an integral method of land reform is of special significance to two major problems confronting all West Indian economies, unemployment and lagging agricultural production. In general, unemployment rates are high everywhere and the numbers of unemployed are on the rise. The problem arises from the fact that government policies have favoured industrialization instead of agriculture. And industrial production tends to be relatively capital intensive. So job creation proceeds at a slow pace while the labour force is expanding rapidly (with population growth), and while the rural-urban drift is accelerated by intensified population pressure on the land.

Land reform offers the scope to expand employment and concurrently to soften the push factors driving people into the towns.

Lagging agricultural production has served to restrain economic development throughout the postwar period. Continuous excess demand for foodstuffs have resulted in rising food prices and increasing food imports year after year. Rising food prices depress the real incomes of non-farm workers and expanding imports place an unnecessary strain on the balance of payments. It is the import component of food supplies that has increased most in price. And price rises for the domestic component have not stimulated enough expansion of supply because of the inflexibility of resource use in the plantation sector. An integral land reform programme would therefore contribute materially to containing the rise in food prices and to promoting import displacement.

In my view, an integral method of land reform deals with only a part of the land problem in the Caribbean. It goes a far way but not far enough. Up to this point we have been concerned with the question of the redistribution of land in farms. It seems necessary to take a look at *all* the land which is available in these island economies. Land is in relatively short supply; population is growing, and competition for the use of land is intensified with new developments - in mining, tourism, forestry, urban development, etc.. These more recent inroads of foreign capital into the economies have had two important adverse effects.

The pressure on black people is intensified and they are forced to migrate; externally, they catch hell with racism abroad and, internally, the majority are forced to live in the most wretched conditions in urban slums - for the most part unemployed. A life of scuffling, crime and violence is the lot of these slum dwellers.

A second effect of these trends has been the dramatic inflation of land prices and the associated high propensity to speculate in land by foreigners and the few nationals who are in a position to buy. In societies which are short of land and in which there is gross under-consumption by the bulk of the population, holding land as a portfolio asset is nothing short of a moral crime!

In so far as governments are responsible for the welfare of people in the society as a whole, the responsibility rests squarely with them to correct these glaring social injustices. To do this, *a comprehensive institutional approach to land reform is absolutely necessary.*

In this connection, one of the first questions to be raised relates to systems of tenure - more specifically, the ownership of land. On this question it seems clear to me that ownership by foreigners should be forbidden by law, for a start. What little land we have must be reserved for use by nationals. But how should it be shared by different groups of nationals. With the present system of freehold tenure, the high income elite groups in the society would get a disporportionate share; and unemployment,

underutilization, and speculation would continue. The present suffering by the masses of black people would hardly change at all. In the circumstances, I would favour abolishing the freehold system of tenure. What, then, will replace it?

All land (at least rural land) should revert to state ownership to be held in trust for the society as a whole. Land can then be leased on a long-term basis to those who want to use it in particular ways. Such a system is not alien to black people. The African model of communal patterns of ownership are a part of our heritage. Land is owned by the tribe and individuals in the tribe can use it without having individual ownership. In the West Indies the nation is one big tribe so state ownership guarantees everyone a stake in the land.

A second question, arising partly from the first, is that of land use. Since land is in short supply it must be used wisely for the benefit of the society as a whole. This requires institutional changes to guarantee that land is used in the most socially desirable ways. Zoning and countryside planning are necessary to achieve this.

Land which is suitable for farming should be leased to farmers. Land suitable for forests can be developed by the state or leased to those wishing to earn a living from forestry or from the running of forest resorts. Public recreation parks with organized mountain sports should be a part of the state's forest development programmes. Beaches must be public property but lands contiguous to beaches can be leased to those who wish to make a living from the holiday industry, on condition that the orientation is as much to national vacationers as to visitors. And, finally, land to be mined can be released as required by mining interests who must pay a charge for the use of the land and for disturbing its natural quality in addition to royality payments for the minerals extracted - with the proviso that the land be restored as best as possible.

Another question we need to consider is that of urban development. We are accustomed to view the growth and expansion of large and super-large cities as a necessary part of the process of economic development. But such cities involve heavy social costs - traffic congestion resulting in a waste of time on the roads (getting to and from work, etc.) and gross environmental imbalances resulting in pollution etc.. There are indeed economies to be gained from concentrations of population, particularly for industrial production and for the provision of certain social services. But after a point (300,000 people, perhaps) the diseconomies begin to mount quite sharply; and it would be socially beneficial to restrict further expansion.

It seems to me that island societies have a unique opportunity to control urban growth in any one location by systematically developing new cities or townships over the countryside as established ones reach the critical level.[1] In this manner, the traditional rural-urban dichotomy loses the significance it now has. And cities could be planned to fit better into the natural environment so as to raise the quality of urban life.

It is in these wider contexts, that (what I describe as) an institutional approach to land reform has greatest significance. Because what is involved are institutional changes of a kind that deal with all land and that is directed to the social betterment of the national community as a whole. The basic concern in this wider context is the general quality of life rather than the narrow objective of improving the *material* welfare of people. For in island economies, the land problem and measures for land reform must inevitably deal with all the land and not just agricultural land. And this takes us beyond questions of rural income redistribution and the scope for increasing agricultural output, productivity, and employment.

The entire social ethos surrounding land ownership and use needs to be confronted. And this can only come about with radical social change.

Finally, we should note that land reform alone is not a panacea for all the agricultural problems of Caribbean economies. It is an extremely important policy instrument. But the effectiveness of any programme of reform will depend ultimately on what other institutional changes are effected simultaneously.

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1 In my opinion, Kingston has passed this level and government could make a positive step in the direction suggested here by moving the government sector out of Kingston to a new location.

Statistical Appendix

(Supplement)

This Statistical Appendix (or Supplement) provides background data for the calculations made in the third section of my paper. Professor Tetteh Kofi suggested to me that the reader would be in a better position to follow the analysis presented if the basic data were appended to the paper.*

As indicated in the text of the paper, the basic data are derived from an earlier conference paper by D.T. Edwards. The source reference for the tables that follow is D.T. Edwards, "Agricultural Development in Jamaica, 1943-1961", a paper presented to the Third West Indian Agricultural Economics Conference (Mona, Jamaica, April 1968), mimeo., unpublished.

* I am grateful to Professor Kofi for his very useful suggestion.

TABLE 1. DISTRIBUTION OF LAND IN FARMS: JAMAICA, 1961

Size of Farm (acres)	Number of Farms (nos.)	Area in Farms (acres)
< 5	113,239	201,093
5 - < 25	40,768	390,453
25 - < 100	3,803	159,950
100 - < 500	778	181,338
500+	350	773,727
All Sizes	158,938	1,706,561

TABLE 2. AGRICULTURAL PRODUCTION BY SIZE OF FARM: JAMAICA, 1961

Size of Farm (acres)	Production (1954 Prices) Value (£'000)	Proportion of Total Value (per cent)
< 5	6,726	24.0
5 - < 25	5,986	21.4
25 - < 100	2,088	7.4
100 - < 500	1,709	6.1
500+	11,506	41.1
All Sizes	28,015	100.0

TABLE 3. CULTIVATED AREA AS A PROPORTION OF FARMLAND: JAMAICA, 1961

Size of Farm (acres)	Cultivated Area (acres)	Cultivated as % of Farmland (per cent)
< 5	118,120	58.7
5 - < 25	152,634	39.1
25 - < 100	43,406	27.1
100 - < 500	40,644	22.4
500+	190,471	24.6
All Sizes	545,275	32.0

TABLE 4. RESOURCES (excluding land) BY FARM SIZE: JAMAICA, 1961

(Per 100 acres of Farm Land)

Size of Farms (acres)	Labour (nos.)	Power* (h.p.)	Fertilisers (cwts.)
< 5	49	4	26
5 - < 25	19	4	20
25 - <100	9	4	42
100 - <500	5	6	39
500+	4	7	87
All Sizes	14	5	55

* Animal and tractor power; horsepower expressed in terms of "draw-bar horsepower".

TABLE 5. VALUE OF PRODUCTION IN RELATION TO LAND AND LABOUR: JAMAICA, 1961

(1954 Prices, £'s)

Size of Farm (acres)	Per Acre of Farm Land	Per Acre of Cultivated Land	Per Man
< 5	33	57	68
5 - < 25	15	39	80
25 - < 100	13	48	138
100 - < 500	9	42	195
500+	15	60	345
All Sizes	16	51	121