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*Improving the Methodology for the Formulation
of Diversification Strategies*

Countries faced with the need for diversification have not always been successful in the formulation and implementation of effective strategies. As Glaser puts it, while these countries have '... been aware of the perils of monoculture for a long time ... like the defenders of a castle under siege, they have made many sallies and no final breakthrough.'

The position of this paper is that a major reason for the lack of success in the formulation and implementation of such strategies is the absence of an approach to their formulation which takes into account the complete context or system in which the present state of affairs is manifested. In other words, the approaches taken have failed to take into account all the dimensions that have a bearing on the problem of diversification and thus have failed to come up with solutions with a good probability of success.

It is argued here that to realise effective strategies for diversification, an approach along the following lines should be taken:

1. Determination of the mix of dimensions influencing the current context of diversification.
2. Examination of the techniques in each dimension useful for the formulation of a diversification strategy in the particular case.
3. Formulation of an overall strategy by the utilisation of these techniques in an holistic integrated systems approach.

This paper will examine the important issue of the delineation of the dimensions

influencing diversification. For simplicity, but hopefully without losing any great deal of universality, the paper will restrict itself to diversification in the agricultural economies of the Caribbean.

The Historical Dimension

To attempt diversification requires a study of the history of the economy to understand the development of institutions within that economy. One general historical pattern of Lesser Developed Countries (LDCs) can be summed up by the statement:

Monoculture and oligoculture are the evils of colonialism. Since the colonial era focussed on the needs of the imperial country, production was organized to maximise returns from whatever crop or crops that were seen as most suited to the colony and which of course could not be produced in the imperial country. Once such commodities were found, no consideration was given to alternatives. This often led to colonies which specialised in the production of one major commodity – monocultures or colonies which specialised in the production of only a few major commodities which we may term oligoculture.

Once established, many of these countries have retained the pattern of monocultures or oligocultures. Therefore in order to be able to formulate effective strategies for diversification, it is essential to first understand the historical tradition that underlies the persistence of these monocultural or oligocultural patterns.

Importance of the Historical Dimension

When a system of monoculture or oligoculture became established in a colony the entire social, political as well as economic machinery of that colony was put in support of that system of production. Thus, the

system of production was more than a simple distinct economic activity — it was a way of life in the colony, for everything else revolved around it.

The dominant class in the society was made up of those who owned the means of production and those who provided the support services for production and export. This group monopolised the political machinery of the colony and used the legal system to support the entrenchment of their social position, which became identified with the entrenchment of the monocultural or oligocultural system of production (Beckford, 1972b).

Thus, the colonial experience became characterised by several features:

1. The development of an economy dominated by foreign influences and forced specialisation (Rosen and Jones, 1979).
2. The considerations of privilege and welfare of the particular crop or crops at the expense of the general welfare of the colony.
3. The concentration of socio-economic and politico-legal power within a small dominant class formed without reference to or without regard to the masses of the society.
4. The 'transient ethos' which pervaded the activities of the dominant class (Green, pp 5-7).

To understand the consequences of this experience, it is necessary to examine the historical tradition of that country, especially the tradition of its agricultural history. Such an examination should precede any attempt at rationalisation of the economic activity of that country. The case history of Caribbean agriculture is now presented to illustrate this position.

The Case History of the Caribbean

In the Caribbean between 1640 and 1900, sugar was the chosen crop and all the productive capacities of the Caribbean countries were geared towards the production of

sugar. Only those areas that were physically unsuited to sugar production were not swallowed up in sugar estates. Labour was imported to service the needs of these estates without reference to considerations of size of the colonies and the ability of the resources to support populations.

Emphasis was on the acquisition of quick wealth, hence attention was not given to the introduction of social amenities which plantation owners would enjoy in their metropolitan homes. For the imported workers who provided the means for this wealth, the barest necessities for survival were seen as sufficient. This imported labour was certainly expected to remain nothing else but a *labour force*. Thus the plantation system, did not simply dominate the economy, but it also structured a system of social orderings and relationships which reflected its needs. The plantation system bred the plantation society, both of which were propped up by the existing political system.

Since sugar planters were part of the political directorate (especially in the case of the Anglophone Caribbean), they influenced the expenditure of state resources in activities to foster sugar production.

Also, they influenced a feeling in the period that sugar should have always remained the main crop. The tradition of monoculture became an obsession of the vested interests of sugar and even when faced with unfavourable market conditions, there was a marked unwillingness to change accompanied by a determination to hold on to the hope that sugar production would one day be profitable.

It was more than simply holding on to the crop. It was a reluctance to even conceive of losing the social and political privilege that went with sugar production, for, a change of crop would mean upsetting the established traditions and the reorganisation of the society towards the production of another crop.

Sugar production in the Caribbean had strong implications for the development of a particular import/export tradition. While it was generally felt that an export crop had to be found and maintained, it was also commonly believed that it was more economically sound to maximise the production of this

export crop in the colony and import all of the colony's needs. Thus began the ironic tradition of agricultural colonies being importers of food and the basis of the dependency syndrome.

While with the value of hindsight, one may question the rationality of the logic used in the colonial period, it must be remembered that the important consideration at that time was not the welfare of the entire society, but the interests of the dominant class. This latter group was decidedly hostile to attempts at diversification in the region.

In the history of the Caribbean, diversification developed as an activity of peasants in their attempts to challenge and survive in a hostile environment (Marshall). Planters held a rigid position of opposition to peasant activity despite the fact that this activity was sometimes beneficial to the plantations as well (Beckford, 1972a).

Diversification occurred in the Caribbean on a wider scale when particular colonies were forced out of sugar e.g., Montserrat and some of the Windward islands in the post emancipation period especially towards the end of the 19th century (Marshall). Despite the examples of the difficulty monoculture would pose under negative market conditions, the practice persisted in the British colonies and was extended to the French and later the Spanish colonies whose sugar production soared as that of the British colonies declined (Beachey, p.22).

The Twentieth century began with economic troubles for sugar (Beachey, p.23). However, the response was to apply scientific agricultural techniques and research to sugar production and to cocoa which now emerged as another important export crop (Pemberton, 1984 p.27). It seemed clear that in the main, Caribbean agriculture would remain export oriented and the plantation system would be maintained.

Techniques for the Historical Dimension

There are several techniques that can be used to effect historical analysis. Firstly, primary source material is invaluable. Documents, reports, newspaper articles and other correspondence would throw some light on the contemporary perceptions. Gene-

rally however, these sources would provide the 'view from the top' - the opinion of officialdom and the vested interests. In order to obtain a balanced perspective, oral research techniques could be utilised, as these would permit the inclusion of all elements involved.

Historical investigations are not limited to qualitative methods, for some areas lend themselves to quantification. For these areas, quantitative methods (now highly valued by cliometricians) can be utilised to promote historical understanding (Floud). The tools of the mathematician and statistician can be very effectively applied to assist investigations in the areas of economic and agricultural history.

The Socio-Political Dimension

This dimension is concerned with a complex interplay of forces that may have a major effect on the current context of the agricultural situation and may thus play a crucial role in any diversification effort. The complex includes areas of power and politics in the society, other sociological and cultural elements as well as the administrative patterns. Clearly, these are areas that have to be fully understood before the formulation of an effective diversification strategy. A few areas of relevance to the Caribbean shall be discussed merely as illustrations.

Geopolitical Element

As was indicated earlier, the pattern of development common to the Third World is a pattern of dependency. In the recent past, this pattern of dependency on the metropolis for trade has widened itself and become integrated with the geopolitical power blocs of the world. Thus, for example, trade with Eastern European countries in most of the CARICOM states is severely restricted, and it is not always possible to capitalise on market opportunities that may exist in those areas.

Even with the metropolis itself, trade may not be free enough to facilitate a diversification thrust. The recent lack of success of the Caribbean Basin Initiative (CBI) attests to this fact. Moreover, there may be subtle and not so subtle attempts to avoid the

formation of new directions of trade.

Arthur Lewis for example has advocated increased trade among LDCs as a solution to some of their problems. However this may be viewed as the formation of new blocs and alliances which may not have universal appeal. The hostility which surrounds the working of OPEC illustrates the difficulties in this regard.

The major issue here is the extent to which the geopolitical web in which a country finds itself allows its sufficient flexibility to permit it to move away from the current production patterns into more diversified ones.

Societal Elements

As has been pointed out, the system of monoculture and oligoculture in developing countries has become associated with particular social classes (Sleeman). Often as in the case of some areas of the Caribbean, these social classes may have been also restricted to particular ethnic groups. Also, as is found in Trinidad and Tobago and Guyana, there have been further changes in the relative influences of the different ethnic groups as further labour immigration has taken place to meet the needs of the export crops.

Because of the rural nature of most agricultural activity, it is also true that the dominant groups in the specialised commodities may constitute a rural or regional majority which imposes a political element on the sociological issue.

These situations present particular considerations in any formulation of diversification strategies. Specifically, diversification may mean a severe reduction in the power and influence of the dominant group. Resistance to change may thus be a natural reaction. Even if change is accommodated, it may only be to the extent that it preserves the status quo, which may not always be desired in an improved order.

Political Elements

Political elements play an important role in the preservation of monocultures and oligocultures. The political influence

is often tied into a network of legal and administrative procedures which may legitimise the continuation of inequities and inefficiencies in the society.

The specialised commodities may even possess state organisations to look after their well being. Examples are the cocoa and coffee industry boards in the region as well as the banana associations. It is not uncommon for such organisations to receive subventions from the public purse to overcome trading losses.

In the recent past, some specialised crops especially sugar, have come to be associated with particular political parties. This has had the effect of an open identification of the political element in diversification thrusts. In other circumstances, trade unions have become associated with the crops, and their political activity may be just as effective as formal political parties.

Cultural Elements

Cultural elements also play a prominent role in the existence of specialisation in agricultural production. For example, the crop may become wedded into religious or community events such as weddings and thanksgivings.

Techniques for the Socio-Political Dimension

As may be apparent for such a diverse group, the techniques of analysis of the influence of this dimension on the current context of monoculture and oligoculture are varied. The choice of the appropriate techniques will depend on the particular elements that dominate the actual situation.

The tools of the sociologist are however of particular concern here, since they allow a deep understanding of the dynamics of the particular society. Especially important are the survey methods both formal and informal and the use of statistical analyses to determine the significant influence of specific variables.

Admittedly, research in this area is fraught with difficulties because of the complex behavioural patterns characteristic of human beings. However this particular dimension, because it has not been as well research-

ed, may reveal the most interesting insights into the persistence of specialisation and concomitantly the most persistent constraints to rational diversification.

ECONOMIC DIMENSION

Three elements are considered crucial in an examination of the economic dimension of the diversification problem. They are the elements of efficiency of resource use, the resource base of the society and the time element.

The Element of Efficiency

As may be gleaned from the foregoing discussion, monoculture and oligoculture can hardly be justified in the current context of Caribbean economies on the basis of the achievement of social objectives. It is still common to encounter arguments which may seek to justify specialisation on purely economic grounds.

The most popular justification has been the contributions that the specialised commodities make to the earnings of foreign exchange for economies that are critically short of this item. Other justifications include the contribution of the commodities to labour, employment and the lack of suitable alternatives to create the gross product they generate.

What is relevant in the analysis of the current context, is the extent to which these justifications are sustainable on strictly economic grounds. If the current context cannot be economically justified, attention should then be focussed on alternatives that can be pursued to achieve the societal objectives.

The economic dimension of diversification therefore concerns itself with the optimal allocation of resources in the society to achieve the greatest societal welfare. The issue of optimality at once raises the question of the goals which should be achieved in the society to maximise welfare. No clear answers may be forthcoming here and to the extent that ambiguities exist, this may allow a nebulous situation to persist to the benefit of the maintenance of the status quo.

Two economic goals have already been

advanced — earning foreign exchange and employment of the human resource. Two other goals may also be advanced — reducing inflation and the attainment of equity in income distribution in the society. It is being argued here that the goal of the achievement of efficiency in the use of resources in the society is the one that should assume the greatest, if not the sole consideration in the determination of the economic context of specialisation and in the evaluation of alternative strategies for diversification.

The reasons for the focus on efficiency in the economic dimension is that this goal is of utmost importance. Without efficiency in resource allocation, the long term survival of any enterprise is always suspect and recourse will always have to be made to the other dimensions for justification of existence. In other words, there can be little support on strictly economic grounds for any enterprise that does not demonstrate economic efficiency.

The reality of the importance of efficiency is nowadays highlighted by the extensions of the workings of the international markets. More and more, markets are being left to the dictates of the free supply and demand forces and there has been the rapid elimination of preferential treatment. Enterprises must therefore be prepared to face these forces and survive on the basis of their own efficiency.

Nowhere is the reality of this deepening of international market forces more apparent than in the Caribbean. Sugar is rapidly losing its preferential toe-hold in the United States market. The immediate problem area is the case of bananas with its weakening preferential position in the United Kingdom market. Outside of the agricultural sector, various manufacturing and assembly industries have been withering under the pressures being exerted by industries from metropolitan and rapidly industrialising Third World states. Minor crops such as coconuts, arrowroot and cotton are increasingly unable to withstand international competition.

Caribbean countries definitely lack the resources for any long term subsidisation of ailing industries, and agriculture must resist the temptation to believe in the modern context that it is a special case deserving

special treatment. A focus on efficiency is a useful guide for the selection of useful enterprises and the elimination of unsuitable ones.

Resources

Given a goal of efficiency in resource allocation, the next crucial element in the economic dimension is the resource base the society has to maximise its well being. Assessment of these resources is critical, for it determines to a large extent the technological possibilities which are afforded the country, as shall be discussed in the next dimension. The waste of resources in the society is never justified, therefore, it is important that a full accounting should be done of the resources tied up in the specialised crops so that adequate alternative uses can be sought for all resources that are not being optimally utilised.

The Time Element

The time element is a crucial element in the economic dimension, as society is often asked to choose between the imperatives of the current period versus the need to sacrifice and invest for future periods. Economic analysis can be useful in providing resolutions to this conflict.

With particular regard to the context of monoculture and oligoculture, it may be argued that the diversification may bring about such dislocations in the present period that its implementation should be delayed as much as is possible. This argument of course ignores the potential superior cumulative benefits that may accrue in future periods from such diversification.

Techniques for the Economic Dimension

Techniques for the economic dimension are again needed to allow a full understanding of the economic dimension of the current state of monoculture and oligoculture, so that along with the other contests, appropriate strategies can be formulated to effect diversification.

Since the emphasis in this dimension is on efficiency, techniques that can help in the determination of efficient allocation of

resources are of paramount importance. Mathematical programming models are particularly useful in this regard (Baumol, 1972 ch.7). These models have the advantage in that they can compare the efficiency of current production practices with that of alternative modes of production.

Standard economic analysis of efficiency combined with econometric techniques can also be useful in understanding the current context. For example, these methods can determine the efficiency of resource use by calculations of marginal productivities, or the nature of average cost functions.

Mention must also be made of the usefulness of survey techniques to estimate the cost of production of the specialised commodities especially by the smaller sized producers. Such farmers may not have acquired the technology of record-keeping, and it may be necessary to interview them to obtain the necessary data for estimation.

The Technological Dimension

There are two elements that are important in the technological dimension which are relevant to the understanding of the current context. They can also influence the strategies that are devised for diversification. These two elements are the knowledge base in the society and the identification of new technological alternatives. These elements are now discussed.

Knowledge Base in Society

The cultivation of specialised crops over the years has led to the accumulation of a wealth of experience and knowledge in all aspects of the production and often the processing of the crops. The society stands to lose the benefits of this accumulated technology if there is diversification away from those crops. Of some concern also, is the fact that this loss may be unequally spread within the society, and there are generally no easy ways to compensate individuals for their losses. This may lead to a great deal of disillusionment in the society, especially among the older folk who may feel that their technological contribution

to society is now deemed useless.

Identification of New Technological Alternatives

It has been demonstrated that in the Caribbean in the recent past, there was the concentration of research and development activities on the specialised export crops, at the expense of research on crops destined for domestic consumption (Coke, Gomes and Gajraj, 1984 p.31). Thus any consideration of diversification away from these specialised crops raises the issue of the nature of the technology for the alternatives and the paucity of information on such technology. In fact, the paucity of information on new relevant technology is often used as a justification for the maintenance of the current state of monoculture and oligoculture.

It is clear that diversification must have a sound technological base, and that this base must be designed for a different organisation of production than in the colonial era.

Techniques for the Technological Dimension

The areas of the concept and choice of technology and the estimation of technological change lie in the domain of the science of economics, although it is to the technologist or the scientist that the economist must turn to get details of the nature of the technology and for the actual development of the new technology. The rural sociologist also may play an important role in the delineation of the relevance and diffusion of understanding the role of technology in influencing the current context of specialisation will therefore require the combined talents of the economist, the sociologist, the technologist and the scientist. Each will bring to the issue, the techniques that are characteristic of his/her field.

The inputs of the different areas must however be integrated in a manner to bring about a focussed investigation. This can be achieved, if a systems approach is adopted, (for example, see Coke, Gomes and Gajraj pp 10-29). This systems approach is in fact also useful in investigations for the identification of new technological alternatives.

The major approach that is available in the area of the development of new technological alternatives is the so-called Farming Systems Research and Extension Approach (FSR/E) (see for example Pemberton, 1987).

The FSR/E approach postulates a comprehensive approach to problem identification in the agricultural economy under study, the development of appropriate technology to provide solutions to the problems identified, the testing of this technology and the use of modern extension methods to encourage the widest dissemination of the proven technology developed.

There is one element of any such approach to technology development that is particularly important. This is the adoption by farmers of the technology developed. While relevance of technology may be the goal, the adoption process of farmers may not be sufficiently well understood to ensure significant success. Nevertheless, the FSR/E approach remains one of the most significant innovations in technology development and it is an approach that could complement any diversification efforts.

FORMULATION OF OVERALL DIVERSIFICATION STRATEGY

The formulation of an overall diversification strategy can be accomplished by a systems approach. Such a systems approach would incorporate the different dimensions or elements for the achievement of the overall objectives of diversification. One procedure to implement such a systems approach requires an intensive meeting of the minds of individuals versed in the different dimensions to work in an integrated manner focusing on the objectives of diversification and providing inputs which go in a holistic manner towards the overall strategy.

The Sondeo experience of the Caribbean Agricultural Extension Project (CAEP) forms a useful model of this integrated systems approach. These Sondeos were designed to achieve the objective of devising strategies for the improvement of the welfare of farmers in regions of islands of the Organisation of Eastern Caribbean States (OECS). The Sondeos lasted for approximately 10 days and

brought together individuals from the main fields of agriculture, health and social sciences. The products of the Sondeos were reports which gave an indication of problem areas facing the farmers as well as a strategy for improvement of their farming systems in terms of opportunities which currently exist as well as recommendations for new activities.

A Sondeo approach applied to the formulation of a diversification strategy would require inputs from individuals in all the dimensions identified in this paper.

CONCLUSIONS

This paper attempted to set out an approach that can be used to develop strategies that can be effective in a diversification thrust. The main argument was that to have a good probability of determination of effective strategies, an examination must be made of the current context of monoculture and oligoculture in the society. This means that an analysis should be done of the four main dimensions: The historical, the socio-political, the economic and technological. Conduct of this analysis was the major focus of the paper.

The paper also attempted briefly to identify techniques in the different dimensions that may be useful in the formulation of diversification strategies.

The paper however noted that an effective diversification strategy cannot be achieved by each dimension acting in isolation. The argument was that an integrated approach is necessary whereby all elements must contribute to the strategy formulation. The Sondeo procedure was suggested as a model that may be useful in bringing about this integrated approach to the formulation of effective diversification strategies.

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