



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

THE IMPACT OF THE TOURIST INDUSTRIES ON THE AGRICULTURAL SECTORS:

The Competition for Resources and Food Demand Aspects (with special reference to the Smaller Economies of the Region)¹

John M. Bryden

(Head of Land Development Division, Highlands and Islands Development Board, U.K.)

Introduction

Reference to the literature on the impact of tourism on development suggests that there should be a positive stimulus to domestic food producing sectors through the demand for food by tourists. Usually - in the standard income multiplier type of approach - this is a tacit assumption of the analysis arising from the fixed coefficients in the matrix, or from misplaced aggregation of commodity inputs. In fact, however, there is little evidence of this kind of structural relationship, and in some of the smaller islands of the Commonwealth Caribbean there is some evidence of a *perverse* relationship between the two sectors, agriculture and tourism.²

It is not the purpose of this paper to examine the methodological weaknesses of the multiplier approach to the analysis of the impact of tourism on development as this subject has been examined elsewhere (6). What this paper has set out to do is to examine some areas of possible conflict between tourism and agriculture, and to very briefly ask what general theoretical position is required to postulate not simply a conflict, but what we may term *immiserising conflict*. Thereafter, personal evidence is given for believing that *immiserising conflict* may indeed have occurred in at least some of the smaller islands of the region, and factors which appear to be most significant for this conclusion are examined. This leads on to some final policy questions which revolve around the following issue: Is it a question of tourism in general versus agriculture, or is it a question of tourism *in particular circumstances and of a particular type* being potentially harmful to any other sector, of which agriculture is one?

Possible Areas of Conflict Between Tourism and Agriculture

In examining reasons for the apparent lack of *linkages* between tourism and domestic agriculture, and the static nature of domestic agriculture in general, it is convenient to distinguish between demand

¹The research on which this paper is based was largely carried out between 1966 and 1970. See (1).

²The agricultural sector in the smaller islands is usually divided into two sub-sectors, domestic agriculture (including forestry and fishing) and export agriculture. See (7).

and supply factors.¹ On the supply side, competition for resources must be considered as an important factor. In the Windward Islands - where tourism grew relatively slowly during the 1960's - the principal competitor was probably banana production, the increase in which has been due largely to an expansion in the area under production.² Marketing and production conditions for bananas contrasted markedly with those existing for domestic agricultural products in that prices were known within fairly narrow limits in advance, certain central services (e.g. leaf spot control and insurance against wind-blow) were provided, and subsidised fertiliser distribution was sometimes organised (5,p.42). Even so, it was felt that there was too little being done in the fields of infrastructure, extension work and research in the 1960's to secure the industry a viable future in the long run (5,p.44). Even in the Windwards it seemed that tourism and construction were competing for this type of resource - perhaps especially in Grenada and St. Lucia.

But it was probably in the Leewards and the Northern Group that competition for resources from tourism and construction had its most serious impact on agricultural production. In Antigua, the effects of competition for labour and government resources were important factors behind the decline in production of export crops (1).³ In Montserrat, real estate development competed for agricultural land as well as for other resources.⁴ Similarly, in the Northern Group, there was competition for land from real estate developments, and for labour and government resources from the rapid growth of tourism and related construction activities. In the Cayman Islands and the British Virgin Islands together, for example, the proportion of the economically active population engaged in primary activities fell from 19.8 per cent in 1960 to around 6 per cent by 1970 (1). Such trends could have a serious effect on innovation and change in the agricultural sector if they mask - as seems probable - an extreme shortage of young people entering the industry.

¹Data on Domestic Agricultural Production are notoriously unreliable. Such as it is, however, the evidence suggests that the proportionate contribution of this sector declined between 1962 and 1966 in the Windwards, the Leewards and the Northern Group (i.e. British Virgin Islands, Cayman Islands and the Turks and Caicos). Indeed, output declined in all islands except Dominica, St. Kitts and Montserrat. Self-sufficiency in total food supplies also fell markedly. See also Appendix Table 1.

²For example, in Dominica the acreage under bananas increased from 5913 in 1955 to 24771 in 1965, while yields actually declined from 232 stems per acre to 162 stems per acre (2).

³The loss of labour from the sugar and cotton industries due to migration to the U.K. and competition for labour from the tourism and construction sectors was commented on by L.G. Campbell and D.T. Edwards (3).

⁴Over 500 acres of good agricultural land had been alienated for this purpose by 1966. (5, p.131).

On the demand side, there is reason to suppose that the pattern of demand changes away from the more traditional domestic crops as incomes in the rest of the economy rise. Income elasticities of demand are low for cereals and cereal products, starchy vegetables and sugar. In fact, Cumper has suggested that some items in these categories may become *inferior* goods at higher income levels (4). Unfortunately much work on income elasticities ignores distributional considerations; it is quite possible for consumption of such products to be increasing for some income groups and decreasing for others, and shifts in the distribution of income due to different development strategies could have quite an influence on changes in the patterns of demand. Moreover, trends in the pattern of demand of the type noted are often dismissed by economists as an *adverse trend in tastes* due to that all-embracing concept, the *demonstration effect*, which really fails to explain who is demonstrating what to whom, and why. Nevertheless, there may be reason to suppose that patterns of consumption are influenced by the nature of tourist development in the region.

The bulk of the tourist expenditures in the Commonwealth Caribbean are generated by tourists from upper income groups in North America and Europe, particularly the former (1), whose normal diet differs markedly from that of West Indians; in particular a much higher proportion of livestock products is consumed, and typically West Indian vegetables and root crops tend to be largely unknown. There is no evidence to suggest that such tourists are innovative in their food consumption habits, although it is an open question whether they would be more so if hotels provided greater opportunities in this direction. It is perhaps also relevant that a high proportion of hotel employees in *professional and managerial* categories are not West Indians (1, ch.7), and similar comments may apply.

Given then, the consumption patterns of these groups, is it plausible to suggest some impact on local consumption patterns which has adverse effects on the demand for locally produced commodities including food? To draw such a conclusion requires us to accept that tourists and/or expatriate employees are a *positive* reference group so far as indigenes are concerned (8, & 1, pp.92-6). In other words, the consumption patterns of these groups are attractive to the indigene and, while he may be unable to satisfy his desire in this respect, he may nevertheless move along the implied direction. Unfortunately, research into the why's and wherefore's of the so-called *demonstration effect* appears to be fraught with problems, and to the economist at any rate it remains rather dangerous ground.

To conclude this section, there is some evidence to suggest that there has been a *perverse* relationship between tourism and agriculture in some - at least - of the smaller islands where tourism and related construction activities grew rapidly during the 1960's. It is extremely difficult to establish - on the evidence available - the respective significance of supply and demand factors. In any event, it could be argued that some of the changes in the pattern of demand could have been met by a changing structure of supply - particularly perhaps by diversification into livestock products and organised marketing of these products.

On the supply side, a distinction can be made between *static* and *dynamic* factors affecting agricultural production. At the level of static analysis, we have competing demands by different sectors for different resources of greater or lesser scarcity. At the level of dynamic analysis one has competition for those resources which would serve to *change* the

the production functions in domestic agriculture to meet changing demand structures and changing resource availabilities. In this respect, one may contrast the institutional support given to export crops and tourism with that provided for domestic crops. As the Tripartite Survey noted in 1966 "... the possibilities and problems of these local food crops and livestock ..., far more than the major export crops, require the introduction of widespread institutional changes for their growth to be made possible" (9, p.33). It is trite but true to state that to effect these changes considerable resources are required in terms of skilled and trained manpower, and public investment in research, credit and specific infrastructure, such as irrigation, together with increased allocations of government current expenditures on extension and marketing facilities, including information. In fact, such increased allocations of resources were not forthcoming during the 1960's, one of the main reasons apparently being the heavy demands of tourism for government resources, particularly in terms of infrastructure, but also on recurrent account. Yet in spite of this, the report - now thankfully discredited on other grounds - described the tourist infrastructures in most of the smaller islands as *inadequate* at the end of the decade (9).

Is Conflict a Bad Thing?

To establish that there has been some conflict in terms of resource-use between agriculture and tourism does not necessarily prove that this has been socially harmful. Such conflicts are inevitable in the process of change. All that we have done so far is indicate that for a wide variety of resources common to both agriculture and tourism, positive opportunity cost existed during the 1960's. This has relevance for the type of analytical framework which we use to assess the merits or otherwise of different development strategies. It is not sufficient simply to examine the foreign exchange earnings of tourism or to state the value of the *tourist multiplier* (1, ch.1).

Using a simple resource-allocation model, an all-wise government would seek to optimise the social product, and one means of doing this would be to rank new projects according to their social productivity. Broadly speaking, social productivity will be determined by real resource costs and the social welfare function which in turn determines the valuation of social benefits. In a mixed economy, however, and with no direct government intervention, projects in the private sector - it may be assumed - will be undertaken according to their private rate of return adjusted for fiscal considerations. As is well known in theoretical literature, there is no necessary correspondence between private and social rates of return, nor is there necessarily any correspondence between the rankings of projects judged by the two criteria. Thus it is perfectly possible for the *private* rate of return from agriculture while at the same time the *social* rate of return in tourism could be *less than* the social rate of return in agriculture.¹ This is a genuine *immiserising conflict* situation, since, from the social point of view, there will be over-investment in tourism and resources will be bid

¹ It is obviously also possible for different types of development in the different sectors to differ in this regard, but we will ignore this complication for present purposes.

away from agriculture. The growth path will be sub-optimal in the sense that the social product would have been higher if investment in tourism had been lower and in agriculture higher than that dictated by market forces.

That is a very simple statement, and the problem becomes very much more complex in practice. Although it is the author's belief that something of this nature was happening in the smaller islands of the Commonwealth Caribbean during the 1960's it might as well be admitted that this has not been proved! What has been done (elsewhere) (1, ch.5 & 10) is to show that when typical hotel developments are considered alongside associated government expenditures, the social rate of return was substantially less than the private rate of return; the author's estimate for a *typical* 100-room hotel in the smaller islands of the Caribbean being 8 to 10 per cent as compared with private rates of return of 15 to 18 per cent.

The circumstances which appear to be quantitatively important for this conclusion are (i) the degree of foreign ownership in the industry, which means that the surplus either accrues to third countries or to individuals whose welfare does not form part of the *welfare function* which governments seek to maximise, (ii) for similar reasons, the employment of non-nationals in skilled and professional positions in the industry, and (iii) the extent of government involvement through the provision of infrastructure, the granting of incentives, promotional activities, and in other ways which involve a real resource cost to the nation. By comparison, the effect of the failure of the hotel industry to purchase a higher proportion of its food requirements locally, while not important, may be rather small.

The effect of tourism on agriculture achieves its significance mainly in the competition for resources which the past growth of tourism has involved in the region, and possibly also through the effect of tourists and/or non-national employees, *qua* reference groups, on the pattern of demand. These effects are not inevitably harmful, and reform of tourism policies may in turn help to solve some of the agricultural problems. The low social rate of return is consistent with a net gain accruing to some groups in the society, while other are net losers from the process of change involved. Although it was not possible to incorporate distributional objectives within the analysis to any significant extent, both because of data inadequacies and because one often lacks a clear idea of these objectives, it is possible to make a few qualitative observations on the distributional effects of tourist development in the region.

In the circumstances prevailing during the decade, the most likely group of losers are the small peasant farmers whether or not they own or rent their land. For while plantation owners may lose their labour force, or at least face a rise in the supply price of labour, they are in a better position to substitute capital for labour where such substitution is permitted and, because they have clear title in law and own large blocks of land usually in the more fertile areas closer to, or even bounded by coastal areas, can look forward to rising land prices associated with tourist development.

Small farmers, on the other hand, often lack clear title even where they own their land, are unable to substitute capital for labour, tend to be situated in areas which do not benefit from rising land prices,

lose their family and hired labour and, in proportion to their numbers, tend to lack political power. For them the alternatives are to retreat into semi-subsistence or to join the labour force as unskilled labour. Other groups will also suffer if forced to purchase imported foods, often processed, in place of local foods when the supply of local foods declines. Still other groups will suffer because with rising land prices near to the growing centres of employment they find themselves no longer able to purchase a plot of land to build a house on.¹

Finally there is the fiscal structure itself with its heavy reliance on import duties on necessities which suggests that a relatively large part of the burden of financing the contribution of government to tourist development falls on the lower income groups. This presumably helps to explain why there is considerable animosity towards tourists and tourism in some areas.

Future Policy Choices

It is convenient to analyse the future policy choices open to the small Caribbean islands under two main headings. First, within tourism itself there are measures which could be taken to raise the net social benefits arising from this industry. Second, the alternatives in other industries, whether or not these supply inputs to the tourist sectors, must be examined. Within tourism itself, analysis suggests at least four major areas of policy which could significantly alter the social benefits arising from future tourist development in the smaller islands.

Firstly, policies as to the structure and ownership of the industry would appear to be of some importance. So long as growth in the industry is based on large luxury hotels, then it seems almost inevitable that ownership will remain in foreign hands. One alternative here would be public ownership, though the smaller islands would find it difficult to raise funds for this type of investment, and may also find themselves forced to employ foreign managers or even sign contracts with foreign firms who specialise in management of hotels of this kind. This could be both politically awkward and economically costly. Nevertheless, there would seem to be room for rather more experimentation in public ownership than has been the case to date, though this need not be in large luxury hotels. Further development of the more *indigenous* small hotels and guesthouses, possibly within the range of a broader band of indigenous private investors as well as government would seem to be worthy of closer examination, since experience in large bureaucratically organised business would be less important, and the distributional implications might be more acceptable. In the 1960's at least, the hotel developments in the region seemed to be predicated on the assumption that the only market worth exploiting is that represented by upper income groups in North America and Europe. While this may be true from the point of view of the private investor, and possibly also from the point of view of tour operators and

¹ Moreover, the building regulations introduced with the intention of controlling residential development and hotels tend to affect lower income groups adversely both because of their complexity and also because the traditional way of building houses is not catered for in such legislation.

airlines, it is quite probable that different conclusions would emerge from a consideration of social costs and benefits.

Secondly, the structure of employment opportunities and related policies regarding the employment of non-nationals in skilled and professional positions would seem to be worthy of close scrutiny. An allied point concerns the failure of the hotel industry to train indigenes to fill positions currently filled by expatriates. Again, casual observation would suggest that guest houses and smaller hotels require a somewhat different structure of employment, catering as they do for simpler tastes and being less orientated towards the highly sophisticated standards of cuisine, accommodation and management thought to be required by the tourist market currently being tapped by the larger hotels in the region. But if large hotels remain, as seems likely, then work permits should only be granted for limited duration and on condition that the period involved should be used to train indigenes to fill the posts at the end of the period. Obviously such work permits should be granted for well defined skilled jobs only if indigenes are not available. Although in theory such a restriction operates in some territories, in practice the operation of work permit regulations usually leaves a great deal to be desired.

Thirdly, the future needs in respect of infrastructure and utilities would seem to be worthy of close analysis with a view both to their minimisation and possibly also to shifting the burden of their provision on to the private investor. With both *priced* utilities and *unpriced* general infrastructure an adequate social return must be assured. In some cases this will no doubt require changes in pricing policies. A related point concerns promotional expenditures through tourist boards which can all too easily reach large proportions without very clear ideas of the responsibilities of these organisations, or the objectives of such expenditures.

Fourthly, as regards fiscal policies and incentives, it is almost certain that the special negotiated concessions in the smaller islands, of which some examples have been given elsewhere (1, ch.8), yield very low rates of social benefit, and very likely that the general incentives offered also yield low social benefits. If any incentives are to be given, a case could be made for arguing that these should be to encourage indigenous participation in guesthouses and smaller hotels, at present largely excluded from incentives legislation through the criteria relating to minimum size.¹ In general, the fiscal system must be designed, so far as possible, to ensure that losers from the inevitable changes are compensated by beneficiaries. The system developed in some of the smaller islands which relieve taxes on imported luxuries on the grounds that this increases tourist expenditures, are unlikely to be consistent with this objective.

The analysis contained in this study suggests that policy action in these four areas could somewhat increase the benefits to nationals from tourist development. If implemented, a corollary would almost certainly be a lower rate of growth of tourism in the region since the attempt to raise social benefits will sometimes raise private costs in the industry:

¹ Incentives are normally confined to hotels of more than 10 rooms in the Smaller Islands (1, ch.8).

On the evidence presented, however, this may not be a bad thing, though existing hotel proprietors, tour operators, travel agents and airlines are not likely to agree. It makes little sense from the point of view of national policy to base the rates of growth of the industry on the expected rate of growth of demand, which is the approach adopted by the Zinder report.

Apart from the tourist industry itself, alternative opportunities need to be assessed on comparable terms. Given the size and population of the smaller Caribbean territories, and their endowments of natural resources, it is difficult to see socially profitable opportunities of any size arising in the field of manufacturing industry, even within a common market which embraced these smaller islands. And within a regional common market which embraced large and small islands, the fear is that all such industry would migrate to the larger islands. Two areas where socially profitable opportunities for the small islands are most likely to exist are in export and domestic agricultural production, including livestock and fisheries within these sectors. But there is little hope of achieving growth in these sectors until the competitive demands of tourism, discussed earlier, are reduced. Thus to predicate, as the Zinder Report did, increased benefits from tourism largely on the basis of increased domestic production of foodstuffs, while at the same time predicting the growth of tourism solely on the basis of demand factors is, presumably to misunderstand the whole process of economic change in the smaller islands of the Caribbean during the past decade or so.

It is hard to believe that there are not projects in the agricultural sector with higher social rates of return than eight per cent, although this study did not examine this question. It is to be hoped that there are, because, if not, real progress in achieving higher real incomes for the bulk of the population in the smaller islands is likely to be slow, much slower than some recent studies dealing mainly with tourism would suggest. Even then, such slow progress will be dependent on a rather different set of tourism policies than existed during the 1960's.

References

1. Bryden, J.M. *Tourism and Development: A Case Study of the Commonwealth Caribbean*, London: Cambridge University Press, 1973.
2. Bryden, J.M. "Agriculture and Economic Growth in the West Indies 1955-65." (Unpublished paper) U.W.I., Trinidad: Department of Agric. Econ. & Farm Management, 1967.
3. Campbell, L.G. and Edwards, D.T. *Agriculture in Antigua's Economy*. U.W.I., I.S.E.R. (Eastern Caribbean), 1965.
4. Cumper, G.E. in Cumper (ed.) "The Economy of the West Indies." U.W.I., Jamaica: I.S.E.R., 1960, p.138.
5. H.M.S.O. *Tripartite Survey of the Eastern Caribbean*. 1966.

6. Levitt, K. and Gulali, I. in *Social & Economic Studies*, Sept. 1970; Bryden, J.M. & Faber, M.L. in *Social & Economic Studies*, March 1971 and Bryden, J.M. *Op. cit.*, Ch. 5.
7. O'Laughlin, C. *Methods and Sources of National Income Statistics of the Leeward and Windward Islands*, U.W.I. Barbados: I.S.E.R., 1966.
8. Runciman, W.G. *Relative Deprivation and Social Justice*, Routledge & Kegan Paul, 1966.
9. Zinder, H. & Associates, Inc., *The Future of Tourism in the Eastern Caribbean*, 1969.

Appendix Table 1. Food Supplies in the Eastern Caribbean; 1962 and 1966

(Current Prices - EC\$m.)

Category	Windwards		Leewards	
	1962	1966	1962	1966
1. Domestic Production ^a	21.6	19.2	5.3	5.4
2. Imports ^b	16.4	24.4	10.9	14.1
3. = 1+2 Total Supplies	38.0	43.6	16.1	19.5
4. Food for Tourism ^c	0.6	1.1	1.0	2.1
5. = 3-4 Adjusted Supplies	37.4	42.5	15.2	17.4
6. = 3/p Total Per Capita \$	111	119	131	148
7. Adjusted Per Capita \$	109	116	123	132

Notes: Totals may not add due to rounding.

^a Estimated Farm Gate Value

^b After duty

^c Estimated from total tourist receipts.

Source: (1, Table 3.9).