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DOMESTIC FOOD SYSTEMS AND THE NEW INTERNATIONALIZATION OF NATIONAL ECONOMIES: The Cases of Jamaica, the Dominican Republic, and Trinidad and Tobago

Margaretta DeMar
University of Florida

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ABSTRACT

In recent years, despite efforts aimed toward agricultural development in many Caribbean countries, malnutrition remains a major problem in the region and food imports to the region have risen steadily. Similarly, in recent decades, there has been a transformation of the international economic system such that nationanal economies have increasingly been integrated into the international economy. Many productive decisions which previously responded to factors at the national or lower levels are now responding to factors at the global level, even when transnational capital is not directly involved. At the same time, the internationalization of economies which were already substantially integrated into the international economy, such as those of the Caribbean, has undergone a qualitative change. A "new international division of labor" has changed the role of many underdeveloped countries from that of being producers of primary products integrated into the international economy solely through commodity trade to being new locations of production for international capital. This paper examines the evidence of this transformations of the international economic system as it is found specifically in the food systems of Jamaica, the Dominican Republic, and Trinidad and Tobago, with a view to future analyses of the impact of this transformation on Caribbean food imports and Caribbean malnutrition.

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Introduction

It is common knowledge that agriculture plays a major role in Caribbean economies. The agricultural sector is the most important employer in the region's economy (employing three-fifths of the area's population)[1] and the most important contributor to national income in many of the region's countries, while agricultural products account for a large part of the export earnings and hence the available foreign exchange of Caribbean countries. Yet despite this agricultural orientation, much of the region's population is malnourished and in recent years imports of foodstuffs to the region have increased dramatically. Imports of food from the United States alone increased 129 percent from 1969 to 1974, more than twice the rate of nonagricultural imports.[2] And by 1981, the Caribbean islands were importing $1.2 billion in food from the United States.[3] Trinidad and Tobago, a net exporter of food 20 years ago, now produces only about 25 percent of its requirements.[4] Even the Dominican Republic, which provides a better-than-average 80 percent of its food from its own domestic production, imported more than eight times the foodstuffs in 1980 it imported in 1970.[5] It is obvious then that Caribbean food systems[6] are producing less and less of what is being demanded; either there has been a decline in the general availability of food in the region or there is greater consumer demand for foods outside the productive capabilities of the domestic food systems of the Caribbean.

Various categories of explanations have been offered to explain the Caribbean's seemingly paradoxical situation of a relatively strong agricultural orientation in production on one hand, combined with malnutrition and an increasing need to import foodstuffs on the other. Each of these types of explanations has some validity but one must determine whether any of them is complete enough to warrant its acceptance as guidance for improving the condition of Caribbean food systems. Most of the explanations are founded on the assumption of declining availability of food, either generally or in relation to domestic populations.

One type of explanation looks to ecological phenomena as the reason for declining food availability in the Caribbean. Bad weather conditions, particularly droughts or heavy rains and hurricanes, or various plant and animal diseases, such as banana fungi or African Swine Fever, often destroy much of the agricultural production of various islands. Nevertheless, although bad weather and disease often are the reason for declining production of certain crops or livestock of certain islands in specific

years, it would be difficult to establish a pattern that would support the Caribbean's generalized trend toward increasing foodstuff imports.

Another type of explanation proposes that even though agriculture is a major sector in Caribbean economies, general agricultural production is declining. Indeed, in each of three of the larger Caribbean countries, Jamaica, the Dominican Republic, and Trinidad and Tobago, agriculture's share in the distribution of Gross Domestic Product (GDP) has declined from 1960 to 1981 (see Table I). In general though, overall agricultural production does not appear to have declined (see Table II). Of the cases listed in the table, only Trinidad and Tobago's index of general agricultural production has decreased.

A more common type of explanation and one supported to a large extent by the evidence displayed in Table II is that even though agricultural production and food production in the region are rising absolutely, they are declining relative to population. In all the cases listed here except that of the "Caribbean including Cuba," per capita agricultural production and per capita food production indices did decrease from 1973 to 1982.

A further type of explanation shies away from declining food availability in general as the reason for increasing foodstuff imports and instead looks to the rising per capita income which several Caribbean countries experienced during the 1970s. Rising income resulted in increased demands for agricultural goods which were not produced in the region and therefore had to be imported. On the other hand, per capita income is no longer rising as it was in the 1970s, yet foodstuff imports continue to increase.

Although each of these categories of potential explanations for increasing foodstuff imports and malnutrition in the Caribbean, despite a relatively strong agricultural orientation in production, has some evidence to support it, none of them proves particularly satisfactory, especially if it is used to fuel and direct ameliorative efforts and policies. These categories of explanation oversimplify the problem Caribbean food systems are confronting by being at once too narrow and too broad. Too narrow, for the most part, they ignore international influences on the priorities of domestic Caribbean food systems and view the domestic food systems as closed national systems. Too broad, their analysis is located at the national or regional aggregate level. The particulars of the situation are obfuscated by aggregating them into one mass. This type of explanation assumes that production of all food products is increasing or decreasing at the same time or that changes in patterns of food production affect all segments of Caribbean populations in a uniform direction.[7]

The problem of the appropriate level of analysis has been addressed to varying degrees in the political science literature.[8] For some time, the international relations literature has described the increasing interdependence of national systems. Events in one nation-state are likely to have repercussions in another. National states are no longer, if indeed they ever really were, autonomous but instead subject to international influences.[9]

At the same time, some strains of the comparative politics literature, while recognizing the impact of the international system on national systems, stress that rather than interdependent, implying a long-term equality of dependence among nations, some national systems, the so-called "developing countries," are more dependent, implying a long-term inequality of dependence between advanced and less-developed countries.[10] Most treatments of interdependence and dependence, however, remain at the level of the nation-state or the inter-national,[11] leading, as noted earlier, to a veiling or distortion of the particulars beneath the aggregated information.

What is needed then to analyze the situation Caribbean food systems are now experiencing is a focus which will allow the observer to view international influences on domestic food production priorities and at the same time to see through the veil of aggregate national or regional-level statistics to the particulars of which foods are rising and which are declining in production and which groups of people are benefiting and which are suffering from these changes.

Such a focus can be found in some interpretations of what is variously called "the new international division of labor," "the internationalization of capital," or "the new internationalization"[12] which attempt to combine the "regional dynamics of interdependence/dependence with the structural development of inequality in the global system."[13] These interpretations propose that in recent decades a fundamental structural transformation of the international economic system has occurred in that global interaction is no longer based solely on commodity trade between countries nor is product specialization based solely on geographic location.[14] Instead, the international economic system is becoming increasingly integrated into a "global system of production and distribution for profit" in which the scale of capital accumulation has vastly expanded; hence the "internationalization of capital."[15] This global system of production and distribution for profit came about as the result of the international capital expansion process. All firms operating under capitalist notions attempt to maximize their profits, a major component of which is "surplus value," that is, the difference between what labor is paid and what the fruit of that labor sells for. This surplus value can be realized only when the goods produced are sold (i.e., exchanged) rather than kept for the producer's own use. Therefore, firms must produce salable commodities and in order for those firms to increase their profits (i.e., for capital to expand), they must look to new markets and find new sources of inputs, including new sources of labor.[16] A result of this process has been that capital has eventually expanded beyond national borders.

National capital from the North has now joined with national capital from the South to build new productive apparatuses (usually located in the South). These new productive apparatuses manufacture goods for world markets as well as for local markets in the South which have emerged as capital itself has expanded.[17] Thus the boundaries for the "expansion of capital and its valorization and reproduction," the process by which profits can be realized and increased, have grown to include the entire world-economy.[18] It is important to note that both advanced or Northern

economies and underdeveloped or Southern economies are undergoing this mutual integration and feeling its effects.[19]

So, having proposed that the alternative types of explanations for problems in Caribbean food systems listed above are insufficient oversimplifications and that the "new internationalization" is the proper focus with which to analyze current problems in the region's food systems, it is now necessary to demonstrate that the "new internationalization" is indeed apparent in these food systems. To accomplish this task, the paper first briefly traces the historical development of the new internationalization, particularly the aspect of the "new international division of labor." Second, it delineates the "components" of the new internationalization as they have been described by several proponents of the approach. Third, it briefly traces the historical development of Caribbean food systems as it relates to the historical development of the new internationalization. And finally, it presents evidence of new internationalization in the food systems of three of the larger Caribbean countries: Jamaica, the Dominican Republic, and Trinidad and Tobago.

The purpose of this paper then is to assess the evidence of new internationalization in three Caribbean food systems, so that future analyses can then establish the impact of this process on Caribbean malnutrition and increasing imports of foodstuffs and on the potential of national and interstate policies to deal with these problems.

Historical Development of the New Internationalization[20]

The historical development of the new internationalization, especially one of its aspects, the new international division of labor, can be divided into five parts: 1) the classical international division of labor; 2) early industrialization of Southern societies; 3) rapid industrialization of the South; 4) multinational investment; and 5) mutual integration of production/new international division of labor.[21]

Classical International Division of Labor. The classical international division of labor dates from colonial times through the late 19th century. Based on commodity trade between nonarticulated economies, it took the shape suggested by and justified by the theory of comparative advantage, which recommended that individual countries specialize in the production and export of those goods which they could produce relatively less expensively and import those goods they produced relatively more expensively. In this way, the theory suggested, general social welfare would rise because more would be produced overall. Determination of a comparative advantage in production of a certain product, however, was based on the mix of factors (land, including resources, labor, and capital) a country is endowed with and, just as importantly, on "the complex politics of North-South relations in the epoch of British Empire and United States hegemony in the late nineteenth and early twentieth centuries."[22] Consequently, under the "old international division of labor," the early industrializing countries of the North produced manufactured goods while the underdeveloped regions of the South (for the most part colonies) produced raw materials and primary products. Under this system, the Northern

metropoles were able to expand industrially while importing consumer goods from the South.

Trade under the old international division of labor took place among nonarticulated economies. The commodities traded, especially those produced in Southern regions, were often produced through noncapitalist productive relations (that is, they were not produced through the wage-labor relationship) although their "production and circulation [were sometimes responding] to...the logic of a capitalist world."[23] Northern capital had not yet organized production in underdeveloped regions because the level of capital accumulation achieved by advanced countries did not yet require expansion beyond searching for new markets or new raw materials.[24]

Early Industrialization of Southern Societies. In the early 20th century, the situation in the South began to change. In the economic sphere, national capitalist classes and entrepreneurial elites began to develop and, at the same time, the first investment of international capital into the region began. In the political sphere, nationalist forces were beginning to emerge. These forces found the implications of the logic of the theory of comparative advantage unacceptable because it discouraged Southern industrialization and encouraged continued production of primary products by the South. As a result of these changes, groups of national and foreign capitalists working separately and together slowly began the industrialization process. Despite this new industrialization though, Southern societies continued to finance their imports with their traditional exports of raw materials and primary products.

Rapid Industrialization of the South. Around the time of World War II, many Southern societies began a program of rapid industrialization in response to their growing awareness that they were required to export increasing volumes of primary products and raw materials to pay for their basic import requirements. This awareness was particularly unpalatable because some contemporary economic theorists had proposed that the international trade system systematically discriminated against producers of raw materials and primary products.[25] Under these conditions, the gap between what the advanced countries could claim through international trade and what the underdeveloped societies could claim through international trade could only widen; hence the decision by many Southern societies to industrialize rapidly. In East Asia, this usually took the form of export assembly industrialization while in Latin America it usually took the form of import substitution industrialization.[26]

Multinational Investment. In the 1950s, the diversified industrial structures of the advanced countries were consolidated, first in North America, then in Europe and Japan. At the same time, unprecedented advances in transportation, communication, and technological innovations were taking place. Together, these changes led to a resurgence in foreign investment both among advanced countries and from advanced countries to underdeveloped regions. Production of many commodities demanded in advanced countries (and by certain segments of Southern populations) began to be geographically dispersed through subsidiaries of Northern firms and joint ventures with Southern national capital in order for Northern capital to take advantage of local markets, privileged access to raw materials, less expensive labor and any incentives offered by industrializing Southern

societies eager for investment.[27] As a result, although Southern societies continued to export traditional primary products and raw materials, they also began to export industrial products, either produced with domestic inputs by international and/or national capital or assembled from imported components as part of a global program ofo production and distribution organized by transnational corporations.[28]

Mutual Integration of Production/New International Division of Labor. The geographic dispersion of production led to a generalization of the capitalist organization of production and a consequent tendency toward the standardization of labor processes, with the transnational corporation as a principal agent in the international spread of technology and new forms for organizing production.[29] This new type of Southern industrialization has not meant production only for export; new local middle and working classes have provided new markets for both locally-manufactured goods and processed agricultural goods.[30] Nontraditional commodities, often copies of counterparts already established in the North, have begun to displace traditional ones on local an export markets; a universalization of consumptive tastes has taken place.[31] Integrating the South more thoroughly into the international economic system, therefore, has not meant the introduction of a new range of products; instead the location for production has become more complex.[32] This new, more complex, dispersion of production reflects a new international division of labor because it is no longer a given, as it was under the classical division of labor to a great degree, that manufactured products will be produced in the North and that primary products will be produced in the South. It is important to note though, that neither is it a given that the roles of the regions have been reversed. Instead, the new international division of labor is new for the mutual integration of Northern and Southern production into the world-economy and for the vast expansion of the scale of capital accumulation.33

"Components" of the New Internationalization

In order to assess the evidence of the new internationalization in Caribbean food systems, it is necessary to outline the analytic categories which distinguish this theoretical framework. Three major categories set off the new internationalization framework, each of which cut across different levels of analysis: global proletarianization, transnational coordination through horizontal and vertical linkages, and reduction of the significance of trade in the international division of labor.[34]

Global Proletarianization. According to proponents of the new internationalization approach, the proper focus for analysis is the labor process at the level of production.[35] David Barkin states, "The most significant cange inCthe international economy today is the expansion of the proletariat.[36] He goes on to note, "In its search for new sources of surplus value and higher rates of exploitation to accelerate the pace of accumulation, capital is continually attempting to expand the proletariat and extend commodity production."[37] The tendency toward""global proletarianization" involves both this expansion of the wage-labor relationship "to encompass new social groups,' new sectors of production and new regions and the extension of commodification, that is, the increasing tendency for goods to be produced for exchange rather than for use.[38] It is important

to note here though, that the process of global proletarianization can be present even if the workers are not a formal proletariat; the labor process of nonwage earners can be much the same as if they were formal wage-earners. For instance, David Barkin cites the example of food processors contracting vegetable production to peasants who, as a consequence, have given over at least some control over their production to the food processors.[39]

The effect of this expansion of the wage-labor process is a tendency toward the standardization of technologies and labor processes in production. Because firms must compete to accumulate capital, they must expand and innovate in order to survive.[40] Competition obliges firms to copy to the best of their abilities whatever advances their competitors have put into use. At the same time, however, there is a tendency toward a differentiation of technologies because firms must also try to innovate in order to move ahead in competition.

Another important point implicit in the discussion of global proletarianization and the focus on the labor process is that although the transnational corporation is an important actor in the new internationalization process, it is only an actor and not the process itself.[41] Furthermore, as will be discussed later in this paper, regardless of whether capital is state-owned, privately-owned by national capital, or transnationally-owned, it can be "internationalized." Indeed, as implied in the description of global proletarianization's not requiring a formal proletariat, neither must capital formally own the means of production for production to be "internationalized."[42]

Transnational Coordination Through Horizontal and Vertical Linkages. Another aspect of the internationalization process is the transnational coordination of production through horizontal and vertical integration and coordination.[43] Because production now tends to be produced through wage-labor relations and for exchange rather than use and particularly because production tends to manufactured and processed, production also tends to involve and depend on more levels of production and distribution than in the past. For instance, the production of agricultural goods, including many foodstuffs, depends to varying degrees on input industries (seed, fertilizer, etc.), primary producers, agribusiness processors, distributors, and any state enterprises that might be involved. Labor processes at these various levels are increasingly linked both horizontally and vertically. This linkage may be either formal (integration) or informal (coordination). As Steven Sanderson explains, "vertical [coordination] does not necessarily mean equity participation in successive links in the productive chain."[44] The most prominent example of nonequity participation is contracting for production inputs.[45] Sanderson describes the range of forms of production contracting in agriculture:

> Least complicated is the direct contract-for-sale, which does not imply forward guarantees or price commitments, but which may stipulate hygiene, pesticide content, size, maturity, and other qualifications for sale. Perhaps most sophisticated is the production contract, through which an agribusiness may arrange in advance for the production of certain varieties of produce under very specific cultivation practices, which may even stipulate brands and frequencies of pesticide applications.[46]

Thus, one can see the potential of integration and coordination of capital to reorganize labor processes along more standardized lines. This in turn supports the contention that rather than because of any new international trade patterns, the new internationalization is new because of the tendency toward a "long-term and mutual integration of national economies ..., as part of a global reorganization and expansion of capital, and the universalization of capitalist labor process throughout the international economic system."[47]

Reduction of the Significance of Trade in the New International Division of Labor. The previous discussion points out how the role of trade has decreased in determining the place of individual countries in the international division of labor. According to one critic, examining trade patterns alone perpetuates the nation-centric bias already criticized in this paper as being too broad for this type of research.[48] For instance, some interpretations view the new international division of labor as essentially a reversal of the old international division of labor.[49] Now, according to this interpretation, Southern countries have become producers and exporters of manufactured goods[50] while Northern countries have become producers and exporters of basic foods and other primary products. Examples of this pattern are easy to find; East Asia produces and exports electronic equipment while Mexico and Brazil import grain from the United States and Canada.

Still, proponents of the new internationalization approach would argue that trade patterns are only "part of the picture." Sanderson argues that neither is the "new international division of labor ..., a simple reversal of the old international division of labor" nor is it simply the "allocation of new tasks to individual countries, on the basis of dynamic comparative advantage or multinational investment strategies."[51] Instead, the internationalization of capital takes place through the integration of production itself. As this implies, "internationalized" products do not serve the export economy alone, but often serve the domestic economy, especially the upper strata of the domestic economy. As the emphasis in analysis on the labor process indicated, trade is only part of the "larger framework of internationalization."[52]

The reduction of the significance of trade in the determination of the international division of labor means that no country is required to play a single role, such as producer of manufactured goods or producer of primary products and raw materials, in the new international division of labor. According to David Barkin, "[capital] can no longer afford to discriminate against the peripheral or dependent countries for being latecomers. They need new markets and must integrate new workers into their production."[53]

Advanced countries, too, are experiencing important changes as a consequence of the mutual productive integration.[54] In turn, this process leads to a universalization of tastes in the marketplace through the consumption of internationalized/standardized commodities.[55]

Structural and Regional Inequalities. It is appropriate at this time to move away a bit from analytic categories and examine for a moment the impact of the new internationalization both structural and regional inequalities.[56] Because, at least in the abstract, the new international economic system does not discriminate against underdeveloped countries in where the production of specific commodities will be located, it would appear that the old regional inequalities that existed under the old international division of labor have been superseded. Structural inequalities, however, have new reasons to exist. The expansion of the wage-labor relationship and the extension of commodity production has generated abrupt changes in both Northern and Southern societies, but they are particularly evident in Southern societies.[57] Structural imbalances are appearing; although the new standardized labor processes are improving society's capacity to produce goods, the extension of production for exchange rather than use has limited distribution of commodities to those who can afford to purchase them. More and more people who previously produced goods for their own use are having to forego consuming some of those goods when they begin to work for a wage because they can no longer afford them.[58]

In addition to these structural inequalities, Southern societies have to contend with regional inequalities in trade capacities after all, despite the ability of countries to take advantage of standarized capitalist labor processes. First, despite this new potential, as Barkin notes, "specific resource endowments and national conflicts about the rate and character of economic change are causing the differentiation of national social and productive structures."[59] In Southern economies especially, production of internationalized commodities is sold for the most part in local markets. Export potential for these products is limited because internationalized products are often already available in other countries. As noted earlier, the internationalization of capital has not resulted in a new range of products but instead has brought about a standardization of the pattern of capital expansion. In order to finance their imports then, most Southern economies must continue to export traditional and other primary goods despite their capacity to produce other goods.[60]

Let us turn now to the character of the new internationalization as it is found in Caribbean food systems specifically.

Historical Development of Caribbean Food Systems

Since the earliest days of Caribbean colonization, the region's food systems have been "internationalized." As "colonies of exploitation," to borrow George Beckford's typology,[61] Caribbean economies fulfilled their European metropole's interest through the production of tropical agricultural crops, particularly sugar, coffee, and cocoa, first with African slave labor and later with Asian indentured labor. The counterpart of this production of agricultural commodities for trade with Europe was, from the early days of slavery, the neglect of food production for local consumption.[62] Subsistance food crops were of minor importance in relation to agricultural export crops. Hence, even in these early days, Caribbean colonies depended largely on imports of food from their respective metropoles and that metropole's other colonies.

During the same period, the European metropoles, with Britain in the lead, were, to varying degrees, undergoing internal changes which gradually had an impact on the Caribbean colonies and their food systems. Roger Burbach and Patricia Flynn describe these changes:

> The feudal structures of the countryside gave way to capitalist forms of production, and the Industrial Revolution created a modern manufacturing industry, first in Europe and then in the United States. Through trade and financial channels European capitalism had a strong influence on Latin American plantation agriculture.... Frequently European merchants and bankers financed both the production and trade of these agricultural commodities, thus developing strong ties with the Latin American landowning and merchant classes. Yet it required more than this close integration with European capitalism through commercial channels to bring about a transformation of production and to change the social relations on plantations.[63]

Foreign capital had not yet achieved the level of capital accumulation at which it was necessary to organize production in the Caribbean.

This situation began to change a bit with the abolition of slavery in the region, in that now the potential for a "more rational system of labor exploitation" existed. Rather than paying for slaves, as well as for feeding and housing entire slave families, plantation owners could pay for labor power only when it was needed.[64] Still, this change to wage-labor took place only very gradually.

Nor did European capital have much input into the organization of Caribbean production under this new situation. According to Burbach and Flynn, until the late 19th century,

> Europe's influence [on Caribbean agriculture] had been felt mainly through the stimulus of the expanding market offered to Latin American agricultural exports. While European capitalists did have close trading and financial relationships with Latin American producers, they had virtually no impact on the internal organization of production in Latin America.[65]

Nor did the abolition of slavery and the consequential resettlement of ex-slaves on other lands change the export orientation of agricultural production. The best land went to large plantations. What land was left for small farming was of the poorest quality. When immigrant labor was brought into some areas of the region, the policy of producing export crops and importing food from abroad continued. Although the plantations had surplus arable land, neither the immigrants nor ex-slaves were allowed to farm it, even in out-of-crop seasons in order to maintain a reservoir of cheap labor which was dependent on the plantation for its livelihood and survival.[66]

Diversification of agricultural production beyond the initial colonial products reinforced the export orientation of Caribbean agriculture. Revolutions in transportation and refrigeration around the turn of the 19th century made the export of tropical produce to the markets highly

attractive, which in turn increased cash crop and plantation cultivation.[67]

So, one finds that the entire 19th century consolidated the role of the Caribbean in the British-led classical international division of labor. The Caribbean region provided the developed countries with primary products while the developed countries provided the region with manufactured goods and those foods traditionally supplied by metropolitan countries. For the most part, developed country capital had little or no influence on internal production in the Caribbean.

According to Burbach and Flynn,

> this began to change with the development of a new stage of 'monopoly capitalism' in the United States and Europe, characterized by the increasing concentration of industry and finance in the hands of a few powerful monopoly corporations. These monopolies ushered in the age of imperialism as they began to make large-scale direct investments in production facilities in the...colonies.... Agriculture, along with mining, became the principal field of the early investments by foreign capital.[68]

The rationale for these investments were control of raw materials and lucrative new outlets for capital for financiers. For instance, food processors gained control of the raw agricultural products they were financing. In the Dominican Republic, Gulf and Western grew sugar. In Jamaica and the Dominican Republic, banana reproduction has been dominated by the United Fruit Company (now United Brands).[69]

During the interwar period of the 20th century, the focus of trade and capital inflows shifted, for the most part, from colonizers and former colonizers to the United States. Burbach and Flynn remark that

> U.S.-owned plantations were thoroughly capitalist production units different in many respects from the traditional plantations of the Caribbean.... They employed a wage-labor force, as contrasted to earlier labor systems of slavery or debt peonage. In order to increase productivity and profits, they used scientific methods of cultivation and modern technology and machinery (although still relying on intensive use of cheap labor). They created a strict division of labor on the plantation...to maximize the amount each worker produced.... The extent of the impact of foreign capital penetration varied from country to country.[70]

Although trade and inflows of capital to the Caribbean region languished during the world depression of the 1930s, they resurged after World War II. The transformation of the international division of labor that began with the increasing concentration of industry and finance into a relatively small number of hands in the advanced countries sharpened in the Caribbean at this time. The new capital inflows to the region emphasized mining, tourism, and manufacturing.

This phenomenon in turn influenced Caribbean food systems because these new types of capital inflows plus cash crop and plantation cultivation all competed with the peasantry for the limited land available in the Caribbean.[71] Such changes undercut the peasant economy and peasants found themselves increasingly marginalized. Many joined the large and often redundant labor force for other types of production. Yet, it was the peasant economy which had traditionally been, and still is, the major source of the region's basic foodstuffs.

Summary

One can see that the historical development of Caribbean societies and their food systems followed, to a large extent, the general historical development of the internationalization of capital laid out earlier. From early colonial days through the 19th century, the Caribbean fit the position suggested by the classical international division of labor, the majority of its production going to a limited number of tropical agricultural crops which were exported to European metropoles in exchange for manufactures and traditional food imports. Production took place mainly on plantations with labor supplied by African slaves and Asian indentured servants. European capital had little or nothing to do with the organization of production in the region at that time.

The abolition of slavery gradually brought about production produced through the wage-labor relationship, although debt peonage was still prominent as well and European capital still had little influence on the internal organization of production in the region. Also, most production continued to fall into the patterns predicted by the "old" international division of labor. Primary products were processed very little if at all.

After World War II though, direct investment by foreign capital changed its character and was concentrated in mining, tourism, and manufacturing.[72] Much of this type of production, for example, bauxite and alumina production in Jamaica, tended to be for the export market, breaking the patterns of the old international division of labor. Still, the majority of exports were (and still are) the traditional exports of the region. Now, let us turn to current Caribbean food systems and assess the evidence of the new internationalization process there.

EVIDENCE OF THE NEW INTERNATIONALIZATION IN THREE CARIBBEAN FOOD SYSTEMS

In attempting to assess the evidence of new internationalization in Caribbean food systems, this paper limits itself to three of the food systems there, those of Jamaica, the Dominican Republic, and Trinidad and Tobago (henceforth referred to as Trinidad). These three food systems represent a variety in the role agriculture plays in the national economy. Trinidad is the most industrial and least agricultural of the three and has attempted to exploit its petroleum reserves and accompanying refineries to improve its economy. Agriculture has tended to suffer as a result. Production of its three major cash crops, sugar, coffee, and cocoa, and of its food crops has declined considerably since 1975.[73] The Dominican Republic, on the other hand, has maintained a strong agricultural orientation in its production. Much of the little industrialization that

has occurred is related to food processing.[74] Jamaica falls somewhere between the two, although bauxite production and refining are extremely important contributors to the economy. Because there is such variety in the role agriculture plays in each of these economies, one would also expect that the character of the impact of the new internationalization on each of the three food systems to vary as well.

This section explores the evidence of the new internationalization as it exists in the food systems of Jamaica, the Dominican Republic, and Trinidad. It by no means presents a complete cataloguing of this evidence. It does, however, attempt to present enough evidence to establish that the new internationalization has indeed had an impact on these three food systems.

If these food systems have become "newly internationalized," there must be evidence of a qualitative change in the character of their internationalization since Caribbean food systems have been internationalized since early colonial days, producing agricultural crops for their metropoles and importing many of their basic foodstuffs. Also, the change in internationalization's character should demonstrate itself in terms of global proletarianization, transnational coordination, and a reduction of the significance of trade in determining the global division of labor. To this task the paper now turns.

Global Proletarianization

In an earlier section of this paper, it is suggested that "global proletarianization," or the expansion of the wage-labor relationship (either formal or informal) in productive relations, is one important facet of the new internationalization. One effect this process would have is an increase in the production of agricultural goods that are disarticulated from domestic producers and lower strata consumers.[75] One would therefore expect an increase in the production of processed foods, of "luxury" foods, such as meat, poultry, eggs and dairy products, and of animal feed (as a result of the increase in luxury food production) in the food systems of Jamaica, Trinidad, and the Dominican Republic.

Processed Foods. In all three countries, food processing has experienced quite an increase since World War II. In Trinidad, "food processing industries have been expanding rapidly in recent years although agricultural production and employment have been declining."[76] Even though agriculture accounts for only 2 percent of Trinidad's GDP and industry accounts for 80.1 percent, food processing ranks second only to petroleum within the industrial sector. In Jamaica's industrial sector, processed foods rank third behind bauxite and textiles and they are viewed as a promising area in which to increase manufactured exports in the future.[77] The Dominican Republic, on the other hand, remains largely agricultural. What manufacturing does exist consists largely of processing and packaging sugar and other agricultural products. Initially these manufactures were to substitute for imports, but increasingly they are for export.[78] Currently, the Dominican Republic processes and packages a "variety of fruits, juices, vegetables, soups, tomato paste, and dairy products."[79] Examples of the development in Dominican food processing include the opening in 1968 of a tin can plant (as a subsidiary of the American Can Company), the opening

of a Carnation/Nestle condensed milk plant, the development of cattle-feeding operations for high-grade beef modeled on United States operations, and an operation for artificial raising of saltwater fish.[80]

"Luxury" Foods. All three food systems have experienced a tremendous increase in the production of certain luxury foods. Production figures for these foods can be seen in Table III. The most dramatic increases include pork production in Jamaica increasing from 3,000 metric tons (mt) in 1962-1964 to 8,000 mt in 1980-1982 and poultry from 15,000 mt in 1969-1971 to 29,300 mt in 1980-1982; and beef and veal production in Trinidad increasing from 2,000 mt in 1962-1964 to 3,000 mt in 1980-1982, and chicken meat production from 14,000 mt in 1969-1971 to 24,600 mt in 1980-1982. The Dominican Republic, in particular, increased its production of luxury foods. Some of the more notable increases are beef and veal production from 25,300 mt in 1962-1964 to 45,600 mt in 1980-1982, pork production from 8,000 mt in 1962-1964 to 23,000 mt in 1978-1980,[81] and poultry production from 18,000 mt in 1969-1971 to 69,000 mt in 1980-1982.

Animal Feed. As a corollary to increased production of luxury foods, one would expect an increase in the production and importation of animal feed. Animal feed production is also another type of production that is disarticulated from domestic producers and indirectly from lower-class consumers. Although much animal feed is still imported, an increase in domestic production has occurred in the countries under study. In the Dominican Republic, the three-year average production of sorghum more than doubled from 14,300 mt in 1973-1975 to 32,600 mt in 1980-1982 (see Table IV). Much of this new production takes place on what used to be marginal sugar cane areas. Also in the Dominican Republic, an increased proportion of molasses production goes to animal feed due to subsidies paid for molasses by the feed/livestock industry.[82] Other crops are also used for and in animal feed in the Dominican Republic. Although wheat is not used directly as feed, it has been estimated that "23 percent of the wheat milled in the country ends up as livestock feed in the form of wheat bran."[83] Since the Dominican Republic does not produce wheat, all wheat requirements are imported. Oilseed meal is also used in animal feed, especially for swine and poultry. A USDA estimate of oilseed meal use in 1982 by the livestock industry in the Dominican Republic is 94,000 mt.[84]

In Trinidad, imports of animal feed have risen to over $20 million annually. In Jamaica, corn and soybean imports rose substantially between 1978 and 1979, corn rising from 198,300 mt in 1978 to 208,000 mt in 1979 and soybeans from 47,633 mt in 1978 and to 82,000 mt in 1979. Domestic production of corn for grain rose from 5,400 mt in 1978 to an estimated 13,000 mt in 1979.[85]

Even with rising feed production and imports, feed supplies are having difficulty in keeping up with demand. One USDA report remarks that in the Dominican Republic,

> the deficit in coarse grains continues to increase as a result of the greater demand for broilers, milk products, and pork. It is certain that as swine are repopulated (after the ASF [African Swine Fever] eradication program) the demand will grow for feed. Also the switch in emphasis from swine to

> poultry production following the eradication of swine due to the ASF outbreak has only increased feedgrains (corn) utilization in the Dominican Republic because poultry have a shorter 'conversion cycle' than do swine.[86]

Uncertainty of feed availability has at times reduced livestock production in the three countries under study. Especially affected have been Dominican peasants involved in the swine repopulation effort.

Transnational Coordination/Standardization of Technologies

Uncertainty of the availability of inputs leads to the next point in assessing the evidence of new internationalization in the food systems of Jamaica, Trinidad, and the Dominican Republic. To be more certain of and to have greater control over the availability of inputs, many firms coordinate or integrate their production vertically. As pointed out earlier, transnational vertical integration/coordination is one of the indicators of new internationalization, as is horizontal linkage. In an analysis of the internationalization of agriculture specifically, Steven Sanderson proposes that:

> the increasing intervention of transnational agribusiness vertically integrates or coordinates the 'internationalized' sector of agricultural activities along standardized lines of production most familiar to center country environments.[87]

He then goes on to propose that:

> the integration and coordination of agribusiness activities does not depend on transnational participation in equity, but on the 'transnationalization' of productive processes in domestic firms in competition with international agribusinesses.[88]

Using these propositions as guidelines then, one may look for evidence of the new internationalization in the three food systems in the presence of transnational enterprises, in horizontally and vertically-linked activities and in standardized technologies.

Transnational Enterprises. Table V shows agribusiness firms with direct foreign investments in Jamaica, Trinidad, and the Dominican Republic. The number of transnationals operating in these countries is large, as is the impact many of them can exert. For instance, the British-based company, Tate and Lyle's sugar holdings represented 25 percent of Trinidad's best land.[89] By 1970, the sugar transnationals alone owned over 10 percent of the total land area of Jamaica.[90] In the Dominican Republic, Gulf and Western (G&W) is the most prominent transnational corporation. Alone, it produces one-third of the country's sugar and operates the world's largest single sugar-producing mill (Central Romana). G&W "holds by far the greatest amount of land in the country." By 1980, the total acreage owned by G&W had increased to 400,000 acres.[91]

As was pointed out in an earlier section of this paper, the transnational corporation does not have to own the means of production formally in order for various levels of production to be linked. Gulf and Western's

colonia system at its Central Romana mill in the Dominican Republic is an example of such "informal" integration; that is, coordination of some levels of sugar production. According to Robert Ledogar,

> as of October 1973, the company had, in addition to 109,642 acres of cane planted on company-owned land, another 49,362 acres on the land of colonos, some owning a lot of land and others very little.[92]

Sugar cane production is profitable only if it is located relatively near a mill. Therefore, expansion of sugar cane production "must take place on land at the perimeter of the company's property or on small pockets of land belonging to others within the general territory of the company's holdings."[93] Yet, Dominican government regulations prohibit foreigners from buying land for the purpose of planting cane.[94] The colonia system grew out of G&W's wish to expand sugar cane production without violating these government regulations.

Colonos own land adjacent to company-owned land and enter into contracts with the company to plant all their land in sugar cane. By 1979, colonos were furnishing 30 percent of G&W's cane.[95] In return for the farmer's growing the cane for Gulf and Western, the company

> advances the farmer whatever he needs to convert the land to sugar at the appropriate time, which is determined by the production schedule of the mill.[96] In addition, the farmer is paid a percentage of the value of the crop after it is harvested. The contracts vary with the bargaining power of the farmer, but its effect in all cases is to integrate individual parcels of land into the company's operations.[97]

Gulf and Western's Dominican sugar operations provide another example of transnational vertical coordination of production in their five-year contract (expired 1981) with Amstar, a large United States sugar-processing firm. The contract provided for G&W to sell Amstar 200,000 short tons of sugar annually at free market prices.[98]

"Transnationalization" of Productive Processes in Domestic Firms. As Sanderson's second proposal points out, the linkage of levels of agricultural production does not require "transnational participation in equity"; instead it depends on "the 'transnationalization' of productive processes in domestic firms in competition with international agribusinesses."[99]

To a large extent, this transnationalization of productive processes in domestic firms has occurred in certain agroindustries in the three countries under study. Where integration and coordination have not taken place, for whatever reasons, firms find themselves in trouble or at least not accruing the profits they otherwise might have. Integration and coordination are important to agribusiness for several reasons. A poultry expert gave the following reasons vertical integration had contributed to a progressive poultry industry but these reasons serve for many other agroindustries as well. Integration facilitates the rapid adoption of improved technology, assists in financing production, and allows the

realization of potential economies of aggregation and economies of scale. It also coordinates the flow of products, reduces costs, which in turn can be passed on to the consumer, and most importantly, reduces the number of profit-maximizing centers, which is crucial in allowing the implementation of the other benefits listed.[100]

That vertical coordination/integration is important in the competition among various agroindustries in these three countries is evident in the difficulties found in Jamaica's dairy industry. According to one observer, the principal failure of the Jamaican dairy system can be traced to milk production and the relation between farmers and processors.[101] Jamaica has become increasingly dependent on imports to satisfy its dairy needs. Century Farms Dairy is Jamaica's only successful new milk processor. It began producing small quantities of 100 percent fresh fluid milk marketed in plastic pouches in 1981. The company is integrated all the way through marketing (unlike the unsuccessful milk processors) and "sells to quality-conscious consumers willing to pay a premium for fresh milk. They pay US$0.99 per liter, US$0.28 above the government's retail price."[102]

Another agroindustry experiencing difficulties when integration/coordination is lacking is poultry production, particularly in the Dominican Republic. Integration and coordination are strategies to limit uncertainties in the availability of inputs. In the Dominican poultry industry, the main "bottleneck" in production is the availability of feed. Poultry production there had a "disastrous" year in 1982 although expectations were that production would rebound in 1983. Consumer demand remains strong, but feed shortages limit any large expansion of production. Although two of the three major producers are integrated feed operations (the third is is independent), the raw material supplies for feed, such as corn and protein meal, are imported by INESPRE, a government agency, and have been irregular. As long as this remains the case, there appears to be little interest in expanding poultry production there, according to a USDA report.[103]

Still, the poultry industry in Jamaica, Trinidad, and the Dominican Republic provides many examples of integration/coordination, particularly forward integration and coordination. High energy costs in these countries have led to a number of innovations in processing poultry wastes. Commercial bio-gas plants based on these poultry products are now underway in both Jamaica and the Dominican Republic.[104] Also, much of the distribution and retailing of poultry has shifted to "convenience" and "fast" foods such as "fried, roasted or barbequed whole and jointed chickens and frozen, vacuum-packed canned, process-dried, cooked or uncooked poultry meat and egg specialties."[105] Many poultry processors also have developed their own brands, marketing directly to the retailer. For example, Proteinas Nacionales, one of the major Dominican producers, brands its poultry, Pollo Cibao, in order to obtain the extra margin of profit, while Supermix, a Trinidadian poultry processor, has opened its own fast food chain, "Calypso Chicken."[106]

Standardization of Technologies and Production Lines. Related to the transnationalization of the productive processes of domestic firms is the expectation of a standardization of technologies and production lines "along the lines most familiar to center country environments.[107] One has already seen this to be the case in the dairy industry (fresh fluid milk) and in the poultry industry (fast foods, convenience foods, and specialty items). It is evident elsewhere as well. Richard Brown, of the United States Department of Agriculture, predicts that Dominican swine production will be more commercialized in the future, especially in re-population efforts after the African Swine Fever eradication program. He also expects a greater uniformity in size than in the past because of this commercialization. Probably the best example of both vertical and horizontal linkages and standardization of technologies/production lines is the Sociedad Industrial Dominicana. Because it is such a fine example, it bears looking at in greater detail.

Sociedad Industrial Dominicana (SID).[108] Begun in 1937, this Dominican agribusiness complex now has production lines in oilseed and their processing, margarines, soaps and detergents, fertilizers, ground maize, animal feed, and livestock production. Originally, SID produced vegetable oils, mainly peanut and coconut. Control of the new inputs for these oils was informally coordinated rather than formally integrated. In return for peanut and coconut production, SID offered a variety of services to the farmers including land preparation, seeds, fertilizers, credit, and price guarantees. Today, SID has integrated forward and markets its brand name vegetable oils, shortening, and margarine (all of which are packaged in SID's own canning plant) throughout the Dominican Republic.

SID entered soap and detergent manufacturing as an extension of its involvement with vegetable oils in 1971. To accomplish this, SID entered into a licensing agreement with Unilever Export, Ltd. and purchased the necessary machinery from Ballestra of Milan, Italy.[109] SID developed and advertised its own brand names of soap and detergent as well as the Unilever brands under license, much as it did with vegetable oils.

In 1954, SID expanded horizontally into the animal feed business with a small mill. It expanded this operation in 1975 by forming Proteinas Nacionales to take advantage of the increased demand for animal feed based on the increased consumer demand for eggs, poultry, milk, and meat. It built a large mill (30 mt per hour) equipped with machinery provided by Buhler Miag of Switzerland. Technology came from two sources: Allied Mills of Chicago provided technology for domestic feeds, while Unifeeds International of Great Britain licensed the technology for export feeds. To help in marketing this feed, Proteinas Nacionales maintains a staff of six poultry technicians, five veterinarians, and two agronomists. Detailed production guides are published for all the feeds, as well as a monthly magazine.

Proteinas Nacionales integrated forward by entering into fertile egg and poultry production. In 1973, SID, Tatum Farms (a British-based business), Financiera Dominicana, and a private individual undertook a joint venture in fertile egg production. Presently the operation is run by SID and Lavador, a leading competitor. From fertile egg production, SID integrated forward once again into poultry production in 1975. Chickens

are now slaughtered in SID's new plant. Thirty percent of these chickens are sold processed under SID's "Pollo Cibao" label.

In 1978, SID again integrated horizontally with the construction of a maize (corn) milling plant. Maicera Dominicana was set up to process maize, flour, brewer's yeast, and edible oil. Buhler Miag of Switzerland provided the equipment for this plant also.

SID has not integrated backwards into the production of the raw materials it processes to any great degree. It does, however, for instance, encourage farmers to raise grain since most grain that SID uses to produce feed has to be imported. Another example of that encouragement is the money allocated to farmers for inputs purchased from SID. In 1977, SID lent over US $5 million (interest free) to Dominican farmers for such inputs as land preparation, seeds, pesticides, agricultural implements, and bags. Also, SID employs a staff of 15 agronomists and ten technicians to provide managerial and technical assistance.

Although some of SID's production is for export and although there has been some transnational and foreign firm contribution to machinery and technology, the major owner of the means of production is Dominican capital and the major market for this production is Dominican also.[110] The Sociedad Industrial Dominicana provides us with an example of the "transnationalization of production processes of domestic firms in competition with international agribusiness" and of the "standardized lines of production most familiar to center country environments" proposed by Sanderson.

Changes from the Historical Division of Labor/
The Caribbean Position

As pointed out earlier, Caribbean food stystems have been internationalized from early colonial days. Under the historical international division of labor, the Caribbean exported tropical agricultural commodities while it imported manufactures and many of its basic foodstuffs. Now, it has been claimed, the old international division of labor is no longer applicable in predicting which commodities will be produced in a particular geographic location. If the new internationalization is indeed a qualitative change from the previous internationalization, one would expect new agricultural commodities to be produced and traditional exports to be replaced by new commodity exports. To varying degrees this has occurred in the three countries under study (see Table VI).[111] In Jamaica, production of cabbages increased from 6,000 mt in 1960 to 11,000 mt in 1980, tomato production has increased from 4,000 mt in 1955 to 17,000 mt in 1980, and cucumber and gherkin production has increased from 1,000 mt in 1971 to 5,000 mt in 1980. In Trinidad, the more noticeable increases occurred in tomato production, increasing from 3,000 mt in 1965 to 9,000 mt in 1980; and in onion production, increasing from 3,000 mt in 1955 to 23,000 mt in 1980. The Dominican Republic had the most dramatic increase in new agricultural commodity production. The products showing the greatest increases were: vegetables and melons, increasing from 76,000 mt in 1974 to 249,000 mt in 1981; tomatos, increasing from 76,000 mt in 1970 to 170,000 mt in 1981; and onions, increasing from 3,000 mt in 1955 to 22,000 mt in 1981.

Under the new internationalization, one would also expect new agricultural commodities to be exported. Table VII illustrates the increase in "new" commodities exported by the Dominican Republic. The Dominican Republic exports such nontraditional exports as tomatoes, cucumbers, avocadoes, pineapplies, mangoes, vegetable oils and beef, the production and flow of which is determined for the most part by market forces at the international level.[112] Indications are that such nontraditional primary product exports will increase in the future. For instance, many international credit lines stipulate that the credit be used to help finance nontraditional exports.

Table VIII shows the values of agricultural exports for categories not associated with traditional exports in the three countries.[113] In keeping with the idea that there should be an increase in nontraditional agricultural exports, one would expect the proportion of the value of these exports to the value of total agricultural exports to increase. In the Dominican Republic, this was not the case; in 1955 these nontraditional export categories accounted for approximately 5 percent of the value of agricultural exports byt only 1 percent in 1978.[114] In Jamaica and Trinidad, however, the shares increased, from under 1 percent in 1955 to over 3 percent in 1978 in Jamaica, and from 2 percent in 1955 to 7.5 percent in 1978 in Trinidad.

In investigating the change from the historical international division of labor, one would also expect a decline in the production and export of traditional agricultural exports. Again, this has occurred to varying degrees in the three countries under study (see Table IX). The Dominican Republic has experienced the least decline in this respect. Tobacco and coffee production have actually increased substantially in the time period covered here while sugar and banana production have increased only slightly. Cocoa beans suffered only a slight decrease in production while only peanut production appeared to have suffered a substantial reduction. In Jamaica, on the other hand, only tobacco production experienced a mild increase while coffee production returned in the 1980s to its 1960 levels after suffering a decline in the 1970s and cocoa bean production remained constant in the time period examined. Sugar, banana, and coconut production all experienced varying levels of decline. Trinidad has experienced the worst declines in production, both in the number of products reduced and in the magnitude of that decline. Every single category of traditional export declined over the time frame covered. These figures fit the general agricultural production pictures of the respective countries though, since the Dominican Republic is the most agriculturally inclined of the three and Trinidad the least.

One would also expect a decline in the export of traditional exports from the countries under study. Yet, this has not necessarily been the case. If one looks at the proportion of the value of traditional exports as a proportion of the total value of agricultural exports, one finds that the trends in trade follow the trends in production just examined. The value of traditional exports as a proportion of the value of total agricultural exports actually increased in the Dominican Republic from 89 percent in 1955 to 92 percent in 1978. In Jamaica, the percentage stayed essentially the same at just over 64 percent in 1955 to just under 64 percent in 1978. Trinidad, on the other hand, experienced a decrease from 82

percent in 1955 to 69 percent in 1978 (see Table X).

Again, following the idea of a change from the old international division of labor, one would expect to see an increase in the processing of the traditional exports traded. From the limited data available, it is difficult to discern any general pattern in this direction at all. Figure I shows the proportion of refined product exports to total product exports for sugar, coffee, and cacao for the Dominican Republic in 1955 and 1980.

Figure I

	Refined Sugar	Refined Coffee	Refined Cacao
1955	.26	.01	.002
1980	.19	.24	.003

So, one sees that despite some changes in the pattern of trade, for the most part, traditional agricultural exports predominate in the three countries under study. This should not be all that surprising since all the "expectations" about changes in the food systems under study elaborated above, except that of increased production and export of new primary products, were founded on the assumption that change from the historical international division of labor is the same as reversal of the old international division of labor, which, as has already been stressed several times does not fit the interpretation of the new internationalization and the new international division of labor used here. Instead one finds that the evidence presented here supports the explanation offered by Barkin and cited earlier for the maintenance of global inequalities despite the nondiscrimination toward underdeveloped countries of the new internationalization process. As one can see, at least agriculturally, in Jamaica, Trinidad, and the Dominican Republic, traditional and other primary exports indeed do predominate in production and trade.

Reduction of the Significance of Trade in the Global Division of Labor

The evidence produced here so far supports the position that the role of trade in determining where commodities will be produced has declined. Although trade flows have changed somewhat, for the most part traditional exports and new primary exports predominate. Processed foods often stay in local markets. Much of the "newly internationalized" production cited has been production for local or regional markets rather than for export to so-called "Center" countries. This is a change from the historical international division of labor but is not merely a reversal of that pattern of commodity flows. As one would expect from general treatments of the new internationalization, the majority of these products of the "newly internationalized" food systems of Jamaica, Trinidad, and the Dominican Republic are not new but instead copies of Western products. This duplication of Western products results in and results from the

consequent standardization of consumptive tastes. These range from simple food commodities, such as an increase in the use of wheat and an increase in the demand for and production of Irish potatoes to processed foods such as those produced by SID to fast food and snack items, such as ice cream in Jamaica and "Calypso Chicken" in Trinidad. Table XI shows increases in 3-year average potato production in the Dominican Republic from 1962-1964 to 1980-1982. None of the countries can grow wheat, yet it is now the primary cereal in the region, according to one USDA source.[115]

SID's agricultural processing generally produces goods for the Dominican market, although as mentioned, it has begun marketing animal feed to other countries in the region. It does not generally export goods to Center countries, but instead it competes with agricultural imports to the Dominican Republic.

Many of Jamaica's ice cream producers are owned by Jamaican capital and the ice cream they produce is consumed by Jamaicans just as Trinidad's "Calypso Chicken" fast food chain is locally owned and its products locally consumed.

Yet, all the products and firms cited here are transnationalized, even though the majority of them have little to do with trade, because all of the products result from the standardization of consumptive tastes brought about by the new internationalization and most result from the standardization of technologies and production lines as well. Trade and commodity flows no longer serve as an almost infallible indicator of the geographic location for production of certain products. Instead, as one would expect from the new internationalization framework of analysis, the location of production of foods used in the Caribbean has grown more complex and less predictable.

Conclusions

Although the evidence presented in this paper is neither systematic enough nor complete enough to prove anything conclusively, what has been collected and presented here largely indicates that the food systems of Trinidad, the Dominican Republic, and Jamaica are indeed relevant to the process of the new internationalization of national economies. The evidence generally fits the situation predicted by the new internationalization framework, in terms of global proletarianization, transnational coordination, and reduction in the significance of trade in the international division of labor.

Examples of some of the more generally accepted and obvious signs of the new internationalization and the new international division of labor are available here. Transnational corporations with a wide range of activities are very strong in the three food systems examined. Changes from the historical international division of labor are also apparent; exportation of traditional exports has declined somewhat while production and exportation of processed foods are on the rise.

More importantly, though, the evidence presented here provides examples of the more subtle characteristics and indicators of the new internationalization process. For example, "informal proletarianization" is

apparent in Gulf and Western's colonia system at the Central Romana sugar mill and to some extent in the Sociedad Industrial Dominicana's arrangements with farmers to provide it with primary inputs. Informal linkages of different levels of production involving the nonequity participation of transnational capital are found in the colonia system also, as well as in the contract between Amstar and Gulf and Western for sugar supplies for processing. Informal linkages of different levels of production involving national capital can be found again in SID's arrangements with farmers to grow and provide them with grain, peanuts, and coconuts.

That the advent of the transnational corporation is not the process changing the international system, although it is an important agent in the process, has also been illustrated in the three food systems examined here. Though many of the "newly internationalized" products produced in the region are produced by transnational capital, there are many examples of "newly internationalized" products produced by national capital. "Calypso Chicken," Jamaican dairy products, the region's poultry products, and SID's products are all examples of products produced by national capital along internationally standardized product lines and labor processes. These standardized technologies and product lines may be purchased directly (e.g., SID's purchase of Allied Mills of Chicago's technology for feed targeted to the domestic market), or not.

Also, the evidence presented in the paper points out that although commodity flows in and out of the region have changed, the new international division of labor is not a reversal of the old international division of labor. Although production and trade of traditional exports have declined in most parts of the region, traditional exports still do predominate. And exportation of processed foods, although increasing, is hardly increasing enough to say that previous trade patterns have been reversed. Instead, examples from Jamaica, Trinidad, and the Dominican Republic demonstrate the new complexity of production location and the duplication of product lines previously considered to be the "territory" of Western capital, without displacing those product lines from the West. The maintenance of this predominance of traditional exports in the Caribbean balance of trade also illustrates the continuance of some regional inequalities in the international trade system. Despite the new complexity of production location, the "new" products are usually duplications of products already available in Northern economies and hence unlikely to penetrate their markets. Even diversification of Caribbean primary exports is predicted to run into barriers, particularly competition with Mexican exports for the United States market.[116]

Another point brought out in the paper is the difficulty in separating the indicators of new internationalization empirically in the same manner that they are separated analytically. The analytical categories (global proletarianization, transnational coordination, reduction in the significance of trade) are not mutually exclusive. Instead they are interrelated and interdependent. Vertical coordination (informal integration) is the most likely source of informal proletarianization. The reduction in the significance of trade in the international division of labor is related both to the integration/coordination of different levels and sectors of production and to global proletarianization and the standardization of labor processes. Examples of one phenomenon are usually

also examples of another. For instance, "luxury" and processed foods are examples of products disarticulated from domestic producers and lower-income domestic consumers, of the standardization of tastes in consumption, often of standardization of technologies, and often of vertical integration/coordination. The colonia system exemplifies informal proletarianization, transnational coordination, and disarticulation of the product from the producer. Vertical integration of production, in general, disarticulates production from domestic producers. Finally, the transnational corporation provides an example of transnational integration, a tendency toward the generalization of capitalist wage-labor productive relations, and the consequent disarticulation of the producer from his products.

Of course, the impact of the new internationalization varies from food system to food system and from product to product. This paper focuses on three of the larger food systems of the region, which are likely to be more relevant to the new internationalization than are the smaller Caribbean food systems (although there are indications of their relevance as well). All three food systems have been internationalized along the trade dimension for quite some time. Since World War II, all three have become increasingly internationalized along the productive dimensions as well.

Differentiating among the three as to their relevance to the new internationalization is somewhat uncertain owing to the unavailability of adequate, systematic data. Nevertheless, some inferences can be made from what has been presented here. First, the new internationalization is most apparent in both its productive and trade dimensions in data on the Dominican food system. This is not particularly surprising since the bulk of Dominican production and exports come from the agricultural sector. On the other hand, data concerning Trinidad indicate that the trade dimension is becoming less important there but that the new internationalization is strongly relevant on the productive dimension. Agricultural production is declining, but what production is taking place is going along the lines suggested by the new internationalization framework. This fits in with the description of Trinidad as pursuing economic development emphasizing the industrial sector. Jamaica again appears to fall somewhere in the middle. Traditional exports are staying relatively constant or declining somewhat, but nontraditional exports are increasing and indications are that this will accelerate in the future. In that sense the trade dimension of the new internationalization appears to be maintaining itself and will probably become even more relevant in the future. The productive dimension of the new internationalization is also relevant in Jamaica's food system but difficulties have kept it less so than it might have been and in some respects less so than in either of the other two food systems.

Despite these differences in the relevance of the three food systems to the new internationalization of national economies, indications are that the new internationalization will only become stronger there in the future. At least, the incentive for it to become stronger exists. Already, some agricultural production, not "sufficiently" coordinated or standardized, has lost some of its potential in international competition, either in selling abroad or in competing for domestic markets with both

transnational and national capital. Specific examples include the Jamaican dairy industry and the feed shortages in Caribbean poultry industries. One would conclude from this that the processes associated with the new internationalization would help individual countries and food systems, as well as the specific firms involved, to gain financially. It is more questionable, however, that these same processes will benefit all segments of a population under a particular food system. Discussions of the impact of the new internationalization on structural inequalities indicate that it will not, and will probably injure some segments of the population. That topic, however, is beyond the scope of this paper and will be examined in a future study.

TABLE I

PERCENTAGE OF GDP PRODUCED BY AGRICULTURAL SECTOR, 1960 AND 1981

	% Agriculture 1960	% Agriculture 1981	GDP (millions of US $) 1960	1981
Jamaica	10	8	700	2,960
Dominican Republic	27	18[a]	720	6,650[a]
Trinidad and Tobago	8	2	470	6,970
United Kingdom	3	2	71,440	496,580
United States	4	3	505,300	2,893,300

[a]1980 figures

Source: World Development Report 1983 (New York: Oxford University Press, 1983), pp. 152-153.

TABLE II

INDICES OF AGRICULTURAL AND FOOD PRODUCTION
IN THE CARIBBEAN, 1973-82 (1969-71=100)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Caribbean, incl. Cuba										
Agriculture	99	101	101	106	103	117	119	115	117	118
Per Capita Agriculture	93	93	91	94	90	100	100	95	95	95
Food	98	99	100	104	102	115	118	115	116	118
Per Capita Food	92	91	90	92	89	98	99	95	94	95
Caribbean, less Cuba										
Agriculture	109	109	104	111	110	124	119	123	121	121
Per Capita Agriculture	102	99	93	97	93	103	96	97	94	92
Food	106	107	103	110	110	120	118	120	119	121
Per Capita Food	99	98	92	96	93	100	96	95	92	92
Dominican Republic										
Agriculture	114	117	108	123	116	133	127	138	136	134
Per Capita Agriculture	104	104	93	103	94	105	97	103	99	95
Food	110	114	106	119	115	126	122	133	132	133
Per Capita Food	101	101	92	95	93	87	90	80	78	76
Jamaica										
Agriculture	103	102	102	100	104	117	111	106	104	106
Per Capita Agriculture	97	95	93	89	91	101	95	88	85	85
Food	103	103	103	101	104	118	111	105	103	106
Per Capita Food	97	96	93	90	92	102	95	88	84	85
Trinidad and Tobago										
Agriculture	94	95	104	105	104	97	103	93	93	93
Per Capita Agriculture	88	88	96	95	92	85	89	79	78	76
Food	95	97	104	105	104	99	104	94	93	93
Per Capita Food	88	90	95	95	93	87	90	80	78	76

Source: World Indices of Agricultural and Food Production, 1973-82. International Economics Division, Economic Research Service, U.S. Department of Agriculture. Statistical Bulletin No. 697.

TABLE III

PRODUCTION OF LUXURY FOODS IN JAMAICA,
THE DOMINICAN REPUBLIC, TRINIDAD AND TOBAGO, 1962-1982
(1000 metric tons)

		Beef and Veal		Pork		Poultry Meat		Milk		Eggs	
Dominican Republic											
	1962		25		8				255		
1962-64	1963	25.3	25	8.0	8			255.0	255		
1963-65	1964	25.0	26	8.0	8			253.3	255		
1964-66	1965	25.0	24	8.3	8			253.3	250		
1965-67	1966	24.6	25	8.6	9			245.3	255		
1966-68	1967	26.6	25	9.3	9			244.3	231		
1967-69	1968	29.0	30	9.6	10			247.3	247		
1968-70	1969	31.3	32	10.3	10			264.6	264		
1969-71	1970	32.3	21	11.0	11	18.0		283.6	283	21.0	
1970-72	1971	34.0	33	13.0	12			300.6	304		
1971-73	1972	36.3	37	15.0	16			316.3	315		
1972-74	1973	38.3	39	17.0	17		27	328.3	330		21
1973-75	1974	38.3	39	18.0	18	31.0	30	318.0	340	21.3	21
1974-76	1975	39.3	37	19.3	19	34.3	36	333.3	320	21.6	22
1975-77	1976	38.3	42	21.0	21	35.3	37	328.3	340	22.3	22
1976-78	1977	38.6	36	22.3	23	36.0	33	335.0	325	22.6	23
1977-79	1978	37.6	38	23.0	23	36.0	38	335.0	340	23.3	23
1978-80	1979	40.0	39	19.3	23	49.3	37	343.3	340	26.0	24
1979-81	1980	42.6	43	12.0	12	60.0	73	346.6	350	29.6	31
1980-82	1981	45.6	46	4.6	1	69.0	70	351.6	350	33.0	34
	1982		48		1		64		355		34
Jamaica											
	1962		12		3				40		
1962-64	1963	12.0	12	3.0	3			41.3	42		
1963-65	1964	12.3	12	3.3	3			42.3	42		
1964-66	1965	13.0	13	3.6	4			42.6	43		
1965-67	1966	13.6	14	4.0	4			42.6	43		
1966-68	1967	14.0	14	4.0	4			43.0	42		
1967-69	1968	14.0	14	4.0	4			43.6	44		
1968-70	1969	13.3	14	4.0	4			44.6	45		
1969-71	1970	12.6	12	4.3	4	15.0		44.0	45	12.0	
1970-72	1971	12.0	12	4.6	5			44.0	42		
1971-73	1972	11.6	12	6.0	5			44.3	45		
1972-74	1973	11.6	11	7.0	8		21	46.0	46		11
1973-75	1974	11.3	12	7.6	8	21.3	21	46.3	47	12.0	12
1974-76	1975	11.6	11	7.3	7	22.0	22	46.6	46	13.0	13
1975-77	1976	11.6	12	7.3	7	25.0	23	47.0	47	13.6	14
1976-78	1977	12.0	12	7.6	8	28.0	30	47.6	48	14.3	14
1977-79	1978	12.0	12	8.0	8	31.0	31	48.0	48	14.6	15
1978-80	1979	12.0	12	8.0	8	31.0	32	48.0	48	15.3	15
1979-81	1980	12.0	12	8.0	8	30.0	30	48.0	48	15.6	16
1980-82	1981	12.0	12	8.0	8	29.3	28	48.0	48	16.0	16
	1982		12		8		30		48		16

TABLE III (continued)

		Beef and Veal		Pork		Poultry Meat		Milk			
Trinidad and Tobago											
	1962										
1962-64	1963	2.0	2	2.0	2						
1963-65	1964	2.0	2	2.0	2						
1964-66	1965	2.3	2	2.3	2						
1965-67	1966	2.6	3	2.6	3						
1966-68	1967	2.6	3	3.3	3						
1967-69	1968	2.3	2	4.3	4						
1968-70	1969	2.0	2	4.3	6						
1969-71	1970	2.0	2	3.6	3	14.0		9.0		6.0	
1970-72	1971	2.0	2	2.3	2						
1971-73	1972	2.0	2	2.0	2						
1972-74	1973	2.0	2	2.0	2		14		7		8
1973-75	1974	2.0	2	2.0	2	16.6	15	7.6	8	7.6	7
1974-76	1975	2.3	3	2.0	2	18.3	21	7.6	8	7.3	8
1975-77	1976	2.6	3	2.0	2	19.6	19	7.0	7	7.6	7
1976-78	1977	3.0	3	2.0	2	19.3	19	6.3	6	7.6	8
1977-79	1978	3.0	3	2.0	2	21.6	20	6.3	6	7.6	8
1978-80	1979	3.0	3	2.0	2	23.0	26	6.6	7	7.0	7
1979-81	1980	3.0	3	2.0	2	24.6	23	7.0	7	6.6	6
1980-82	1981	3.0	3	2.0	2	24.6	25	7.0	7	6.6	7
	1982		3		2		26		7		7

Source: World Indices of Agricultural and Food Production, 1962-71, 1965-74, and 1973-82. International Economics Division, Economic Research Service, US Department of Agriculture. Statistical Bulletin No. 697.

TABLE IV

SORGHUM PRODUCTION IN THE DOMINICAN REPUBLIC, 1969-1982
(1000 metric tons)

(1969-71)		14.0	
	1973		9
(1973-75)	1974	14.3	17
(1974-76)	1975	17.3	17
(1975-77)	1976	18.0	18
(1976-78)	1977	20.6	19
(1977-79)	1978	22.3	25
(1978-80)	1979	24.3	23
(1979-81)	1980	27.6	25
(1980-82)	1981	32.6	35
	1982		38

Source: World Indices of Agricultural and Food Production, 1973-82. International Economic Division, Economic Research Service, US Department of Agriculture. Statistical Bulletin No. 697.

TABLE V

TRANSNATIONAL CORPORATIONS IN THE DOMINICAN REPUBLIC, JAMAICA, AND TRINIDAD AND TOBAGO

Almost all transnational corporations and banks have an influence on the food systems of their respective host countries, either directly through food production or food processing, or indirectly through competition for land, provision of credit for land and other inputs, or packaging of food products. Listed below are transnational corporations and banks with direct foreign investment in the Dominican Republic, Jamaica, and Trinidad.

Dominican Republic	Home Base
ADELA	US
Aguirre *	US
Alcoa	US
Alfa International #	US
American Broadcasting Company (ABC)	US
American Can	US
American Standard	US
Armco Steel #	US
Ashland	US
Atlantic Richfield	US
Bank of America	US
Bank of Nova Scotia	Canada
Beatrice Foods *	US
Brown and Root #	US
Canadian Superior Oil	Canada
Carnation *	US
Casa de Campo (G&W)	US
Chase Manhattan	US
Citicorp #	US
Club Med (Atlantic Richfield, Texaco, Colgate Palmolive)	US
Colgate Palmolive	US
Compton Advertising	US
Con Agra *	US
Consolidated Foods *	
Delta Brush	US
Dominican Oil Refinery (Shell)	UK, Netherlands
Dominican Telephone	US
Dominicus Americanus	US
Elmhurst Construction	US
ESB	UK
Exxon	US
Falconbridge #	Canada
First National Bank of Boston	US
General Motors	US
Gulf	US
Gulf and Western (G&W) * #	US
Guy F. Atkinson	US

TABLE V (continued)

Holiday Inn	US
Hormel Meats *	US
Hotel Santo Domingo (G&W)	US
Inter-Continental Hotel (Pan American)	US
International Business Machines (IBM)	US
International Telephone and Telegraph (ITT)	US
Investment and Deveopment Corporation #	US
Johnson and Johnson	US
Latin American Agribusiness Development (LAAD) *	US
Manufacturers Hanover	US
Mitsubishi	Japan
Nabisco *	US
National Cash Register	US
Nestle *	Switzerland
Pan American	US
Pet Milk *	US
Philip Morris	US
Rinso	US
Rosario Resources #	US
Royal Bank of Canada	Canada
S.A. Hullera Vasco-Leonosa	Spain
Shell #	UK, Netherlands
Sheraton (ITT)	US
Simplot	US
Sontheimer	US
Stokeley Van Camp *	US
Superior Oil #	US
Tenna	US
Texaco	US
Textron	US
Two-O-O Enterprises *	US
Union Carbide	US
Warnaco	US
Warner Lambert *	US
W.R. Grace *	US
Xerox	US
Young and Rubicam	US
Jamaica	
ADELA	US
Agip (Ente Nazionale Idrocarburi) #	Italy
Albatross Fertilizer *	Netherlands
Alcan #	Canada
Alcoa	US
Allied Chemicals #	US
Aluminum Partners of Jamaica (ALPART) (Anaconda, Kaiser, Reynolds)	US
American Telephone and Telegraph (ATT)	US
Anaconda	US
Antilles Chemical (W.R. Grace)	US
Ataka Trading *	Japan

TABLE V (continued)

Bahama California Oil (Socal)	US
Bank of America	US
Bank of Montreal	Canada
Barclays Bank	UK
Beatrice Foods Company	US
Booker McConnell *	UK
British Insulated Callender's Cables	UK
Caribbean Bitumels (Socal)	US
Caribbean Molasses (T&L) *	UK
Carnation *	US
Castle and Cooke *	US
Central Soya	US
Citicorp	US
Consolidated Foods *	US
Continental Telephone Corporation of the United States	US
Dow Chemical	US
Eastern Airlines	US
Ente Nazionale Idrocarburi #	Italy
Exxon	US
First National Bank of Chicago	US
Fyffes (United Brands) *	US
General Milk (Pet Milk and Carnation) *	US
General Telephone and Electronics	US
Goodyear	US
Hilton #	US
Holiday Inn	US
Imperial Chemical	UK
Innswood Estate (Booker McConnell)	UK
International Basic Economy Corporation (IBEC)	US
International Petroleum (Exxon)	US
International Telephone and Telegraph (ITT)	US
Inter-Continental Hotel (Pan American)	US
Jamaica Alcan (JAMALCAN) #	Canada
Jamaica Alcoa (JAMALCOA) #	US
Jamaica Floral Experts (JAFLEX) (Kaiser) *	US
Kaiser *	US
Kellogg *	US
Kenyon and Eckhardt	US
McCann Erickson	US
Mackey International	US
Manufacturers Life Insurance	Canada
Mobil	US
Moratti Group	Italy
National Continental Bakery (ITT) *	US
Norman, Craig and Kummel	US
Pan American	US
Pet Milk *	US
Pillsbury *	US
Prudential Group	US

TABLE V (continued)

Quaker Oats *	US
Ramada Inn	US
Revere	US
Reynolds * #	US
Rockwell Group #	UK
Rose Hall inter-Continental	US
Royal Bank of Canada	Canada
Salada Foods (Kellogg) *	US
Sarjam (Moratti Group) #	Italy
Shell	UK, Netherlands
Sheraton (ITT)	US
Signal Oil and Gas	US
Socal	US
Sprostons (Alcan)	Canada
Standard Brands *	US
Structures Limited (IBEC)	US
Tate and Lyle * #	UK
Trafalgar House Investments	UK
Unilever *	UK, Netherlands
Union Texas Petroleum (Allied Chemicals) #	US
United Brands *	US
Western International Hotels (Alcoa)	US
West Indies Glass (Rockwell Group) #	UK
West Indies Sugar Company (WISCO) (T&L) * #	UK
Weyerhaeuser	US
WISCO Wharves (T&L)	UK
W.R. Grace *	US
Wyandotte Chemical	US

Trinidad and Tobago

Alcan	Canada
American Life	US
Amoco	US
Anchor Lines (T&L)	UK
Badger	US
Bank of Nova Scotia	Canada
Barclays Bank	UK
Booker McConnell *	UK
Borden *	US
Caribbean Molasses (T&L) *	UK
Caroni (T&L) * #	UK
Central Soya *	US
Chaguamaras Terminals (Alcan)	Canada
Chase Manhattan	US
Columbia Broadcasting System (CBS)	US
Compton Advertising	US
Dunlop	UK
Farrell House (Texaco)	US
Federated Chemicals Trinidad (FEDCAM) (W.R. Grace) * #	US
Fertilizers of Trinidad-Tobago (FERTRIN) (Amoco) * #	US

Geddes Grant Sprostons Industries (Alcan)	Canada
Gulf	US
Hilton	US
Holiday Inn	US
International Business Machines (IBM)	US
International Multifoods *	US
Iron and Steel Company of Trinidad-Tobago #	Japan, Netherlands
Kawasaki	Japan
Kanyon and Eckhardt	US
McCann Erickson	US
Mitsui	Japan
Nestle *	Switzerland
Norman, Craig and Kummel	US
Occidental Petroleum	US
Pan American	US
Pan American Trinidad Oil (Amoco)	US
Pillsbury *	US
Royal Bank of Canada	Canada
Shell	UK, Netherlands
Sprostons (Alcan)	Canada
Standard Brands *	US
Stephens and Ross (Booker McConnell)	UK
Sugar Lines (T&L)	UK
Sylvania	US
Tate and Lyle (T&L) * #	UK
Tenneco	US
Texaco *	US
Trinidad Food Products (Nestle) *	Switzerland
Trinidad Nitrogen Company (TRINGEN) (W.R. Grace) #	US
Trinidad-Tesoro Petroleum (Tesoro) #	US
Unilever *	UK, Netherlands
Unital (T&L)	UK
Western Geophysical	US
W.R. Grace *	US

* denotes direct influence in food system.

# denotes known involvement in join venture with host government.

Sources: Roger Burbach and Patricia Flynn, Agribusiness in the Americas (New York: Monthly Review Press, 1980); David Kowalewski, Transnational Corporations and Caribbean Inequalities (New York: Praeger Publishers, 1982).

TABLE VI

PRODUCTION OF "NEW" COMMODITIES IN THE DOMINICAN REPUBLIC, JAMAICA, AND TRINIDAD AND TOBAGO, 1955-1980, (1000 metric tons)

	Vegetables and Melons	Cabbages	Tomatoes	Cucumbers	Onions	Pineapples
Dominican Republic						
1955					3	
1960					2	4
1965					3	5
1970		2	76		17	7
1971		2	76		17	7
1972		3	83		20	16
1973		3	84	1	21	16
1974	151	4	85	1	21	18
1975	155	4	86	1	22	18
1976	163	4	92	1	22	19
1977	201	4	135	1	16	19
1978	199	4	138	1	10	20
1979	217	4	156	1	18	18
1980	233	4	153	1	23	20
Jamaica						
1955			4			
1960			5			3
1965		6	4			1
1970		6	4	1		1
1971		6	4	1		1
1972		10	9	4		6
1973		8	9	3		4
1974	68	12	9	3	1	4
1975	71	8	9	4		4
1976	74	8	9	5		5
1977	95	9	21	7	4	5
1978	90	10	15	7	5	5
1979	80	10	16	4	5	5
1980	79	11	17	5	2	5

TABLE VI (continued)

Trinidad and Tobago	Vegetables and Melons	Cabbages	Tomatoes	Cucumbers	Onions	Pineapples
1955						
1960						
1965			3			
1970			3			
1971			3			
1972		5	7	2		2
1973		6	9	2		3
1974	33	7	11	2		2
1975	31	7	10	2		2
1976	31	7	10	2		2
1977	31	7	10	2		2
1978	32	7	10	2		2
1979	31	7	8	2		3
1980	31	7	9	2		3

Source: FAO Production Yearbooks, 1956-1981. Food and Agricultural Organization of the United Nations. Rome, 1956-81.

TABLE VII

SELECTED NONTRADITIONAL COMMODITIES EXPORTED
FROM THE DOMINICAN REPUBLIC (metric tons)
1955-79

	Tomatoes	Cauliflower	Lettuce	Okra	Squash	Eggplants	Cucumbers
1955	110274		50		24312	1625	856
1960	1066846		8166		12645	3942	14150
1965	221626		13086	20	173495	20586	121110
1970	1093905		8384	4790	3849397	173848	416555
1971	2154739		17732	9613	1656766	54030	265879
1977	3171593	22848	20363	3104121	2450106	394855	371089
1978	2057438	38243	3760	2137282	3129575	292679	243175
1979	1720484	88943	28739	1443932	3251466	341630	421577

Source: Comercio Exterior de la Republica Dominicana, 1956, 1961, 1966, 1971, 1972, 1978-80. Santo Domingo, Dominican Republic, 1956-1980.

TABLE VIII

VALUE OF NONTRADITIONAL AGRICULTURAL EXPORTS
IN THE DOMINICAN REPUBLIC, JAMAICA, AND TRINIDAD AND TOBAGO
($1000)

	Total Agricultural Exports	Live Animals	Meat and Meat Preparations	Dairy Products and Eggs	Cereals and Preparations	Feedstuffs
Dominican Republic						
1955	109700	—	600	100	1900	1600
1960	164300	—	1900	—	1200	2200
1965	109600	—	—	—	200	600
1970	187124	—	3390	2	214	1380
1971	211491	2	3011	13	250	707
1972	263486	1	6816	2	147	269
1973	323612	11	10099	61	536	416
1974	482360	5	9273	55	698	348
1975	711800	6	4733	20	833	333
1976	481935	6	8234	153	642	306
1977	573565	27	2175	170	829	27
1978	449379	30	2360	205	2399	33
1979	530385	32	3502	178	629	1035
1980	514704	35	2886	20	889	1642
Jamaica						
1955	62200	—	—	200	100	—
1960	69500	—	—	100	—	—
1965	88800	100	—	100	100	100
1970	77759	78	36	83	127	68
1971	78919	3	201	287	218	—
1972	90752	68	509	111	140	—
1973	94495	78	653	224	549	58
1974	140653	73	375	321	659	10
1975	219623	14	440	337	474	15
1976	129697	6	597	525	906	24
1977	157989	39	522	644	2226	29
1978	144795	248	337	871	3228	30
1979	138768	64	356	824	3450	27
1980	123121	21	249	79	1938	94

TABLE VIII (continued)

Trinidad and Tobago	Total Agricultural Exports	Live Animals	Meat and Meat Preparations	Dairy Products and Eggs	Cereals Preparations	Feedstuffs
1955	32200	—	200	200	200	100
1960	36400	—	200	100	300	300
1965	41200	—	200	100	200	200
1970	40514	169	355	1047	597	703
1971	40947	92	452	1495	713	1171
1972	49818	98	474	1598	878	1178
1973	46418	32	339	931	1722	1225
1974	82320	124	534	803	3651	1239
1975	113740	38	659	1087	4985	850
1976	84810	19	588	1201	4073	1050
1977	75541	127	635	1761	3924	587
1978	64025	173	516	1331	2456	286
1979	79697	161	643	1367	3207	176
1980	80972	286	574	1657	10537	17

Source: FAO Trade Yearbooks, 1958-81. Food and Agricultural Organization of the United Nations. Rome, 1958-1981.

TABLE IX

PRODUCTION OF TRADITIONAL EXPORTS IN THE DOMINICAN REPUBLIC, JAMAICA, AND TRINIDAD AND TOBAGO, 1962-82 (1000 metric tons)

Dominican Republic

		Sugarcane		Tobacco		Peanuts		Bananas		Coffee		Cocoabeans	
	1962		902[a]		25		52		360		34		41
1962-64	1963	845.3[a]	806[a]	28.0	31	50.0	48	306.6	310	38.3	41	35.6	41
1963-65	1964	739.0[a]	828[a]	26.0	28	47.6	50	276.6	250	39.3	40	32.0	26
1964-66	1965	694.0[a]	583[a]	26.0	19	48.6	45	253.3	270	35.6	37	27.6	29
1965-67	1966	688.0[a]	671[a]	22.6	28	47.0	51	250.0	240	35.0	30	29.0	28
1966-68	1967	715.6[a]	810[a]	21.3	21	47.6	45	243.3	240	33.3	38	26.3	30
1967-69	1968	787.0[a]	666[a]	19.0	15	55.0	47	252.3	250	36.0	32	31.3	21
1968-70	1969	845.0[a]	885[a]	19.3	21	65.0	73	264.0	267	36.6	38	30.0	43
1969-71	1970	989.0[a]	984[a]	23.0	22	75.0	75	276.0	275	39.0	40	37.0	26
1970-72	1971	1067.0[a]	1098[a]	24.6	26	78.3	77	283.6	286	41.6	39	32.0	42
1971-73	1972		1119[a]	31.6	26	80.6	83	295.3	290	43.6	46	35.6	28
1972-74	1973		10092	35.6	43	79.3	82	305.0	310	47.6	46	34.3	37
1973-75	1974	9740.6	9796	34.3	38	68.3	73	314.3	315	50.0	51	36.0	38
1974-76	1975	10020.6	9337	31.6	22	54.3	50	314.3	318	55.3	53	35.0	33
1975-77	1976	10451.6	10930	28.6	35	43.3	40	312.6	310	53.0	62	33.3	34
1976-78	1977	11289.6	11091	40.3	29	41.6	40	311.6	310	55.6	44	33.6	33
1977-79	1978	11379.6	11848	46.3	57	41.6	45	305.0	315	49.6	61	34.3	34
1978-80	1979	11107.6	11200	53.0	53	44.3	40	305.0	290	55.0	44	34.0	36
1979-81	1980	10673.0	10275	47.3	49	41.6	48	306.6	310	57.0	60	34.0	32
1980-82	1981	10306.3	10544	40.6	40	38.3	37	316.6	320	59.3	67	34.6	34
	1982		10100		33		30		320		51		38

TABLE IX (continued)

Jamaica		Sugarcane		Tobacco		Bananas		Coffee		Coconuts		Cocoa-beans	
	1962		441		1		272		2				2
1962-64	1963	472.0	492	1.3	1	290.3	281	2.0	2			2.0	2
1963-65	1964	496.3	483	2.3	2	305.6	318	2.0	2			2.0	2
1964-66	1965	501.6	514	3.6	4	318.6	318	1.6	2			2.0	2
1965-67	1966	492.3	508	4.6	5	304.3	320	1.3	1			2.0	2
1966-68	1967	471.6	455	5.0	5	268.3	275	1.0	1			2.0	2
1967-69	1968	432.0	452	5.0	5	228.3	210	1.0	1			2.0	2
1968-70	1969	405.0	389	5.0	5	201.6	200	1.0	1			2.0	2
1969-71	1970	386.3	374	5.0	5	196.6	195	1.0	1	105.0		2.0	2
1970-72	1971	384.6	396	5.0	5	196.6	195	1.0	1			2.0	2
1971-73	1972		384	4.0	5	198.3	200	1.3	1			2.0	2
1972-74	1973		3584	2.6	2	186.6	200	1.3	2		116	2.0	2
1973-75	1974	3631.0	3785	1.3	1	166.6	160	1.6	1	114.3	121	2.0	2
1974-76	1975	3626.6	3524	1.0	1	151.6	140	1.3	2	109.6	106	2.0	2
1975-77	1976	3424.0	3571	1.0	1	151.6	155	1.3	1	103.3	102	2.0	2
1976-78	1977	3421.0	3177	1.3	1	158.3	160	1.0	1	102.3	102	2.0	2
1977-79	1978	3207.6	3515	1.6	2	163.3	160	1.0	1	103.0	103	2.0	2
1978-80	1979	3060.6	2931	2.0	2	156.6	170	1.3	1	99.0	104	2.0	2
1979-81	1980	2789.0	2736	2.0	2	153.3	140	1.6	2	98.0	90	2.0	2
1980-82	1981	2645.3	2700	2.0	2	150.0	150	2.0	2	105.0	100	2.0	2
	1982		2500		2		160		2		125		2

TABLE IX (continued)

Trinidad and Tobago															
		Sugarcane		Oranges		Grapefruit		Bananas		Coffee		Cocoa-beans		Coconuts	
	1962		204[a]						30		4		6		
1962-64	1963	222.0[a]	231[a]					27.3	26	4.3	5	5.3	5		
1963-65	1964	238.6[a]	231[a]					25.6	26	4.3	4	5.0	5		
1964-66	1965	233,0[a]	254[a]					26.0	25	3.6	4	5.0	5		
1965-67	1966	223.0[a]	214[a]					26.3	27	3.6	3	5.3	5		
1966-68	1967	219.3[a]	201[a]					28.0	27	3.6	4	5.3	6		
1967-69	1968	228.3[a]	243[a]					28.3	30	3.6	4	5.6	5		
1968-70	1969	234.6[a]	241[a]					29.3	28	3.6	3	5.0	6		
1969-71	1970	226.0[a]	220[a]	15.0		20.0		29.0	30	3.3	4	4.6	4	105.0	
1970-72	1971	223.0[a]	217[a]					30.3	29	3.6	3	4.3	4		
1971-73	1972		232[a]					29.6	32	3.3	4	4.3	5		
1972-74	1973		2006		8		5	30.0	28	3.0	3	4.3	4		99
1973-75	1974	1906.0	1975	7.6	12	11.0	19	27.6	30	3.0	2	4.3	4	77.3	57
1974-76	1975	1992.3	1737	7.0	3	11.6	7	26.3	25	3.0	4	4.0	5	70.3	76
1975-77	1976	2006.6	2265	4.3	6	6.3	9	23.6	24	3.3	3	3.6	3	77.6	78
1976-78	1977	1991.0	2018	3.6	4	6.3	3	22.0	22	2.6	3	3.0	3	75.6	79
1977-79	1978	1759.3	1690	2.3	1	5.0	7	20.0	20	2.6	2	3.3	3	71.3	70
1978-80	1979	1551.6	1570	1.6	2	5.3	5	18.0	18	2.3	3	3.3	4	65.0	65
1979-81	1980	1363.3	1395	2.0	2	4.3	4	16.3	16	2.6	2	3.3	3	58.3	60
1980-82	1981	1156.6	1125	2.0	2	4.0	4	15.0	15	2.6	3	3.0	3	53.3	50
	1982		950		2		4		14		3		3		50

[a] denotes raw sugar; other figures are for centrifugal sugar.

Source: World Indices of Agricultural and Food Production, 1962-71, 1965-74, and 1973-82. International Economics Division, Economic Research Service, US Department of Agriculture. Statistical Bulletin No. 697.

TABLE X

VALUE OF TRADITIONAL AGRICULTURAL EXPORTS IN THE DOMINICAN REPUBLIC, JAMAICA, AND TRINIDAD AND TOBAGO
($1000)

	Total Agricultural Exports	Sugar and Honey	Coffee, Tea, Cocoa and Spices	Tobacco
Dominican Republic				
1955	109700	44800	52400	——
1960	164300	94300	43200	——
1965	109400	62500	28600	9600
1970	187124	111248	48955	14648
1971	211491	139421	36980	21175
1972	263486	167625	48272	28985
1973	323612	198149	70597	30230
1974	482360	340771	72659	39248
1975	711800	576771	72620	35541
1976	481935	264020	149373	19805
1977	573565	231971	273027	29397
1978	449379	181433	183732	46199
1979	530385	206603	234663	53873
1980	514704	307540	133485	33666
Jamaica				
1955	62200	32100	7900	——
1960	69500	38100	5800	200
1965	88800	45600	5400	2100
1970	77759	39114	7821	2172
1971	78919	40014	6904	2444
1972	90752	44651	9436	3565
1973	94495	41364	10685	4673
1974	140653	84533	12750	5410
1975	219623	154005	13735	5851
1976	129697	64212	14395	7385
1977	157989	76197	16949	8749
1978	144795	69736	15753	6990
1979	138768	59338	16101	9385
1980	123121	55516	16269	10117

TABLE X (continued)

Trinidad and Tobago	Total Agricultural Exports	Sugar and Honey	Coffee, Tea, Cocoa and Spices	Tobacco
1955	32200	18300	8000	——
1960	36400	22400	6000	——
1965	41200	24800	4400	——
1970	40514	23076	6605	10
1971	40947	23947	5424	13
1972	49818	31067	5528	29
1973	46418	25760	5621	201
1974	82320	55213	6721	209
1975	113740	78909	16091	243
1976	84810	52171	9008	592
1977	75541	37224	15992	713
1978	64025	24700	19282	38
1979	79697	38272	18548	124
1980	80972	31826	16610	100

Source: FAO Trade Yearbooks, 1958-1981. Food and Agricultural Organization of the United Nations. Rome, 1958-81.

TABLE XI

POTATO PRODUCTION IN THE DOMINICAN REPUBLIC, 1962-82

	1962		8
(1962-64)	1963	10.3	8
(1963-65)	1964	13.0	15
(1964-66)	1965	16.3	16
(1965-67)	1966	18.0	18
(1966-68)	1967	19.3	20
(1967-69)	1968	21.0	23
(1968-70)	1969	22.0	23
(1969-71)	1970	23.3	23
(1970-72)	1971	24.0	24
(1971-73)	1972	25.0	25
(1972-74)	1973	24.3	26
(1973-75)	1974	21.6	22
(1974-76)	1975	20.3	17
(1975-77)	1976	19.0	22
(1976-78)	1977	21.0	18
(1977-79)	1978	19.6	23
(1978-80)	1979	22.0	18
(1979-81)	1980	22.0	25
(1980-82)	1981	23.6	23
	1982		23

Source: World Indices of Agricultural and Food Production, 1962-71, 1965-74, and 1973-82. International Economics Division, Economic Research Service, US Department of Agriculture. Statistical Bulletin No. 697.

FOOTNOTES

[1]Mary Revelt, "Developing the Caribbean: Its Implication for US Agriculture, Foreign Agriculture, 20:6 (June 1982), 4-7.

[2]Donald Baer, "Inflationary Pressures in the Caribbean Basin," Caribbean Basin Economic Survey, 1:2 (May/June 1975), 1-4.

[3]Revelt.

[4]Foreign Economic Trends and Their Implications for the United States: Trinidad and Tobago. International Trade Administration, US Department of Commerce, March 1982.

[5]Christine Bolling and Nydia Rivera-Suarez, Dominican Republic: An Export Profile. Foreign Agricultural Economic Report 186, International Economics Division, Economic Research Service, US Department of Agriculture, August 1983.

[6]A "food system" is defined here as the centers of production, the centers of consumption, and the channels of distribution and exchange of food (Hopkins and Puchala, 1978).

[7]Even at their own level of analysis, those types of explanations veil the separation of agricultural production from domestic food production and availability. Yet, in the Dominican Republic, cited in a recent USDA publication as "the most agricultural of the Caribbean islands" (Bolling and Rivera-Suarez, 1983), the index of per capita agricultural production declined 9 points from 1973 to 1982, while the index of per capita food production for the same period dropped a drastic 25 points (see Table II).

[8]A good treatment of the variations in the literature can be found in Steven Sanderson, "A Critical Approach to the Americas in the New International Division of Labor" in The Americas in the New International Division of Labor, Steven Sanderson, ed. (New York: Holmes and Meier, forthcoming).

[9]Examples of the interdependence literature include:

Stanley Hoffmann, Primacy or World Order (New York: McGraw-Hill, 1978);

Charles W. Kegley, Jr. and Eugene R. Wittkopf, World Politics: Trend and Transformation (New York: St. Martin's Press, 1981); and

Robert O. Keohane and Joseph S. Nye, Power and Interdependence (Boston: Little, Brown, 1977).

[10]For a survey of the dependency literature, see Ronald A. Chilcote and Joel C. Edelstein, Latin America: The Struggle with Dependency and Beyond (Cambridge, Mass.: Shenkman Publishing Co., 1974).;

and Ronald H. Chilcote, Theories of Comparative Politics: The Search for a Paradigm. (Boulder Colo.: Westview Press, 1981).

FOOTNOTES

[11]Sanderson, "A Critical Approach ...."

[12]Examples include:

Stephen Hymer, The Multinational Corporation (Cambridge and New York: Cambridge University Press, 1980), and

Steven Sanderson, ed. The Americas in the New International Division of Labor.

[13]Sanderson, "A Critical Approach ...."; see also Maria da Conceicao Tavares and Aloision Teixeira, Transnational enterprises and the internationalization of capital in Brazilian industry" Cepal Review No.14 (August 1981) pp.85-106.

[14]David Barkin, "Global Proletarianization," in The Americas in the New International Division of Labor, Steven Sanderson, ed. (New York: Holmes and Meier, forthcoming); Sanderson, "A Critical Approach...."

[15]David Barkin, "Global Proletarianization."; Saskia Sassen-koob, "The Internationalization of the Labor Force" in The Americas in the New International Division of Labor, Steven Sanderson, ed. (New York: Holmes and Meier, forthcoming).

[16]Ibid.

[17]Ibid.

[18]Sanderson, "A Critical Approach...."

[19]Steven Sanderson, "The 'New' Internationalization of Agriculture in the Americas," in The Americas in the New International Division of Labor, Steven Sanderson, ed. (New York: Holmes and Meier, forthcoming); see also Jerker Carlsson, Transcending the Blocked Development--the Economic Development of the Ivory Coast" Acta Sociologica 26:3/4 (1983), pp.321-327.

[20]This section draws heavily from Barkin, "Global Proletarianization," especially pages 16-21. For other sources on the topic, see Sanderson, "A Critical Approach..."; Sassen-Koob; and Dieter Senghaas," Multinational Corporations and the Third World: On the Problem of the Further Integration of the Periferies into the Given Structure of the International Economic System" Journal of Peace Research 12:4(1975), pp.257-273.

[21]These divisions are not necessarily chronologically separate.

[22]Sanderson, "A Critical Approach...."; see also Senghaas.

[23]Barkin, A Global Proletarianization," p. 17.

[24]Ibid.

[25]See especially Raul Prebisch, United Nations Economic Commission for Latin America, The Economic Development of Latin America and its Principal Problems (Lake Success, N.Y.: UN Department of Economic Affairs, 1950).

[26]Barkin, "Global Proletarianization"

[27]Ibid.

[28]For a somewhat different approach to the period of "multinational investment" and "mutual integration of production," see da Conceicao Tavares and Teixeira, pp. 89-93

[29]Barkin, "Global Proletarianization

[30]Ibid.

[31]Barkin, "Global Proletarianization"; Sanderson, "A Critical Approach...."

[33] Barkin, "Global Proletarianization.'

[33]Barkin, "Global Proletarianization"; Sanderson, "A Critical Approach...."

[34]Sanderson, "A Critical Approach....'

[35]See Barkin, "Global Proletarianization"; Sanderson, "A Critical Approach...."; and Terry L. McCoy and Charles H. Wood, "Carribean Cane Cutters in Florida: Implications for the Study of the Internationalization of labor" in The Americas in the New International Division of Labor. Steven Sanderson, ed. (New York: Holmes and Meier, forthcoming).

[36]Barkin, "Global Proletarianization," p. 1.

[37] Ibid., p. 2.

[38]Ibid.

[40]Ibid.

[40]Barkin, "Global Proletarianization"; Sanderson, "A Critical Approach...."; see also Theodore E. Downing, The Internationalization of Capital in Agriculture" Human Organization 41;3 (Fall 1982), pp 269-277.

FOOTNOTES

[41]Ibid; see also da Conceicao Tavares and Teixeira; and Maria Patricia Fernandez Kelly,"Contempory Production: Seven Features and One Puzzle" in The Americas in the New International Division of Labor. Steven Sanderson, ed. (new York; Holmes and Meier, forthcoming).

[42]An example of this phenomenon is contract production, or "non-equity" participation of capital, which will be discussed in greater detail later in this paper.

[43]Sanderson, "A Critical Approach...."

[44]Ibid.

[45]Ibid.

[46]Ibid., p. 18.

[47]id., p. 19;see also da Conceicao Tavares and Teixiera.

[48]Sanderson, A Critical Approach..."

[49]See especially Fölker Frobel, Jürgen Heinrichs, and Otto Kreye, The New International Division of Labor (Cambridge: Cambridge University Press, 1980).

[50]This view ignores the possibility that much of tiis trade takes place within a single transnational corporation (Barkin, "Global Proletarianization").

[51] Sanderson, "A Critical Approach...," p. 19.

[52]bid., p. 25.

[53]Barkin, "Global Proletarianization,' p. 8.

[54]For example, advanced industrial societies are facing higher unemployment rates with relocation of certain industries to locations in other parts of the world.

[55]Barkin, "Global Proletarianization"; Sanderson, "A Critical Approach...."

[56]Structural inequalities refer to inequalities most apparent at the local level, for example, class or income inequalities. Regional inequalities refer to inequalities among states or regions, that is inequalities at the national or regional levels.

[57]Barkin, "Global Proletarianization."

[58]This also applies to the informal proletariat and producers of cash crops.

[59]Barkin, "Global Proletarianization."

[60]r a fuller explanation, see Barkin, "Global Proletarianization."

[61]George Beckford, Persistent Poverty (New York: Oxford University Press, 1972).

[62]Thomas Craig, "The Milk Mess: Jamaica's Attempts to Develop its Dairy Industry," Agribusiness Worldwide (October 1982), pp. 16-22.

[63]ger Burbach and Roger Flynn, Agribusiness in the Americas (New York: Monthly Review Press, 1980), p. 90.

[64]Ibid.

[65]Ibid., p. 93.

[66]Caricom Feeds Itself: Basic Answers to the Questions Most Often Asked About the Regional Food Plan (Georgetown, Guyana: Caribbean Community Secretariat, 1977).

[67]George Beckford and Michael Witter, "Small Garden, Bitter Weed; Struggle and Change in Jamaica" (London: Zed Press,1980);

[68]Burbach and Flynn, p. 94.

[69]Ibid.

[70]Ibid., p. 94.

[71]Beckford and Witter.

[72]Ibid.

[73]Foreign Economic Trends...: Trinidad and Tobago.

[74]Dominican Republic: Annual Agricultural Situation, 1982. Attache Report. Foreign Agricultural Service, US Department of Agriculture, Febuary 1983

[75]In "The 'New' Internationalization of Agriculture...," Sanderson proposes that "the internationalization of American agriculture reveals itself in greater volumes of trade in agricultural commodities that are disarticulated from domestic producers and lower-class consumer" (p. 10). I have extended this proposition to include greater production of goods disarticulated from domestic producers and consumers since one of the main points of this particular interpretation of the new internationalization is that production under the new internationalization does not serve the export economy alone.

FOOTNOTES

[76]Background Notes: Trinidad and Tobago, Bureau of Public Affairs, US Department of State, January 1982.

[77]Background Notes: Jamaica, Bureau of Public Affairs, US Department of State, March 1982.

[78]Doing Business in the Dominican Republic. US Embassy, Santo Domingo, Dominican Republic, August 1983.

[79]Ibid., p. 11.

[80]Ibid.

[81]Lower pork production figures after this year reflect the decimation of the Dominican swine population due to an outbreak of African Swine Fever there and the subsequent ASF eradication program. Repopulation is now in progress.

[82]Dominican Republic: Its Main Economic Development Problems. (Washington, D.C.: The World Bank, 1978).

[83]Dominican Republic: Annual Agricultural Situation, 1982, p. 10.

[84]Ibid.

[85]Jamaica: Grain and Feed Annual Report. Attache Report. Foreign Agricultural Service. US Department of Agriculture, December 1979, pp. 7-8. Some corn production, however, is diverted to the green "corn on the cob" market.

[86]Dominican Republic: Annual Agricultural Situation, 1982, p. 11.

[87]Sanderson, "The 'New' Internationalization of Agriculture...,"

[88]Ibid., p. 10.

[89]David Kowalewski, Transnational Corporations and Caribbean Inequalities (New York: Praeger Publishers, 1982).

[90]Wesley Daley, "Political Growth in Jamaica." Ph.D. dissertation, Howard University, cited in Kowalewski.

[91]Corporate Examinar, Gulf and Western Resolution, January 1980, cited in Kowalewski.

[92]Robert Ledogar, Hungry for Profits: US Food and Drug Multinationals in Latin America. (New York: IDOC/North America, 1975), p. 77.

[93]Ibid.

[94]Ibid.

[95] Henry Frundt, "American Agribusiness and US Foreign Agricultural Policy." Ph.D. dissertation, Rutgers University, cited in Kowalewski.

[96]This is also an example of "informal proletarianization."

[97]Ledogar, p. 78, emphasis added.

[98]Dominican Republic: Some of Its Main Economic Development Problems.

[99]Sanderson, "The 'New' Internationalization of Agriculture..." p. 10.

[100]John Freivalds, "Designing a Poultry Industry," Agribusiness Worldwide. (March/April 1983), pp. 44-49.

[101]Craig.

[102]Ibid., p. 17.

[103]Dominican Republic: Dairy, Livestock and Poultry, Semi-Annual Report. Attache Report. Foreign Agricultural Service, US Department of Agriculture, July 1983.

[104]Freivalds, "Designing a Poultry Industry."

[105]Ibid., p. 49.

[106]Ibid.

[107]Sanderson, "The 'New' Internationalization of Agriculture...," p. 10.

[108]For more complete account, see John Freivalds, "Strategies for Survival: Sociedad Industrial Dominicana," Agribusiness Worldwide. (January/February 1983), pp. 14-19, from which the information found in this section is taken.

[109]This is also an example of standardization of technologies.

[110]Since the AFS outbreak, markets for SID's feeds have been found and developed in several other Caribbean countries.

[111]This covers only those "new" commodities not already examined as "luxury" foods.

[112]Ledogar.

[113]These categories are: Live Animals, Meat and Meat Preparations, Dairy Products and Eggs, Cereals and Preparations, and Feedstuffs.

FOOTNOTES

[114]Some of this may be explained by the large increase Dominican exports of sugar to the US after the US embargoed imports of Cuban sugar.

[115]World Food Aid Needs and Availabilities, 1983. International Economics Division. Economic Research Service, US Department of Agriculture, July 1983.

[116]David Powell, Problems of Economic Development in the Caribbean. British-North American Committee, 1973.

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