

Migration, Small Farming and Food Security in the Caribbean: Jamaica and St. Vincent and the Grenadines

Elizabeth Thomas-Hope*

ABSTRACT

Long-term and short-term (seasonal) migrations from Caribbean countries have been strategies for enhancing the livelihoods and assets of individuals and families for many decades. The greatest challenges to food security are felt by the populations below the poverty level, most of whom are rural dwellers. Taking two Caribbean countries – Jamaica, and St. Vincent and the Grenadines, this article assesses whether in rural, characteristically small-farming areas, the financial and social remittances resulting from migration are used to improve food security, through either supporting agricultural production or providing money to purchase food. The findings show the contrast between Jamaica and St. Vincent. Whereas migration generally benefits small-scale farming and domestic food production, increasing food accessibility in Jamaica, migration has been variously used by the rural poor in St. Vincent to replace farming. Food security in St. Vincent is heavily dependent on purchasing food and, in this regard, migrant remittances play an important role.

INTRODUCTION

Jamaica and St. Vincent and the Grenadines (hereafter usually referred to in this article as ‘St. Vincent’) were selected to demonstrate the comparative situation of Caribbean States regarding the role of migration in small farming and food security strategies. Jamaica and St. Vincent are of contrasting size and rural-urban characteristics. Jamaica is an island with an area of 10,990 square kilometres (4,240 sq. mi.) and a population of 2.8 million people (STATIN, 2012), with Kingston the capital city. St. Vincent is comprised of the main volcanic, mountainous island, St. Vincent, 344 km² (133 sq. mi.) and the northern two-thirds of the Grenadines which are a chain of small islands stretching south from St. Vincent to Grenada, with a combined landmass of 45 km² (17 sq. mi.). The country, whose the capital is Kingstown, has a population of approximately 103,220 (St. Vincent and the Grenadines, 2012). (Figure 1).

Migration

Net migration rates from Jamaica and St. Vincent have been generally high since the 1950s, with an excess of emigration over immigration (represented by the negative figures in Table 1). The rate was calculated as the net number of migrants per 1,000 of the population. The high emigration rates from the decade of the 1950s and 1960s can be explained by the post-World War II

* University of the West Indies

FIGURE 1
JAMAICA AND ST. VINCENT SHOWING THE LOCATION OF THE STUDY SITES

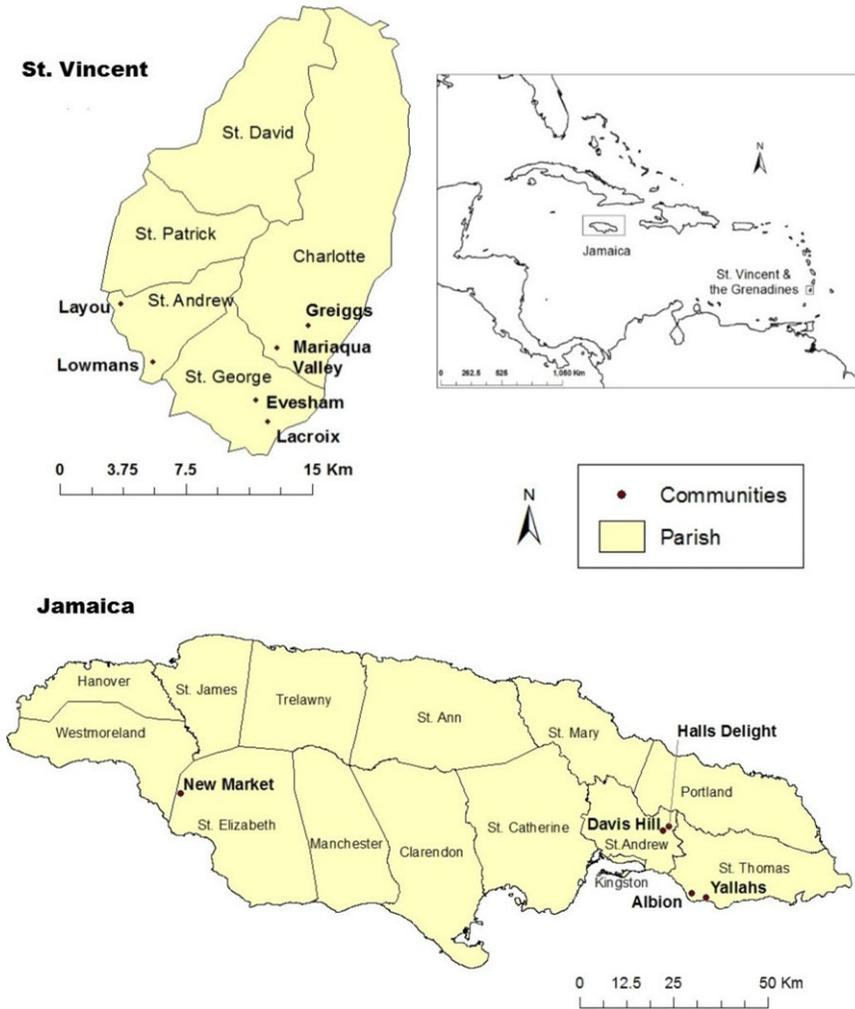


TABLE 1
NET MIGRATION RATES FOR JAMAICA AND ST. VINCENT AND THE GRENADINES

	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020*
Jamaica	-5.1	-19.0	-17.5	-18.7	-10.7	-11.0	7.4	-13.8	-9.3	-5.8	-7.4	-5.8	-5.6	
St.Vincent and the Grenadines	-14.0	-14.7	-22.3	-22.7	-18.9	-14.8	-14.3	-13.4	-16.1	-14.7	-9.6	-9.4	-9.1	-7.3

*estimated Source: World Bank statistics

movement to the United Kingdom followed by increased migration to the USA and Canada from the 1970s. Long term migration from Jamaica and St Vincent has been declining since the 1990s and is predicted to continue to decline in the future (Jones et al., 2014; Thomas-Hope et al., 2009; Thomas-Hope, 2015).

Despite this overall downward trend in emigration, there have been continued opportunities for persons with relatively low levels of education or financial means to migrate on seasonal labour contracts, which cover costs relating to travel and accommodation at the destination under the terms of the programme. The contracts are negotiated and managed through bilateral agreements between the Governments of Jamaica and St. Vincent, respectively, and the host governments, and in both countries they have provided a significant source of employment.

Since the 1990s, the movement of seasonal labour from St. Vincent has been to the USA and Canada, superseding the earlier seasonal labour migration to Barbados. There are three overseas schemes in which Vincentians currently participate: the Canadian seasonal farm work programme; employment on cruise liners; and recruitment to the British army (Information from the Government of St. Vincent and the Grenadines, Ministry of Labour).

In the case of Jamaica, overseas work programmes include: the United States Farm Work Programme; the United States Hospitality Programme; the Canadian Hospitality Programme; and the Canadian Farm and Factory Programme. (Information from the Government of Jamaica, Ministry of Labour and Social Security). Over the period 1994-2003, for example, some 95,000 seasonal labour contracts for men and 15,000 for women from Jamaica were issued for work in the USA and Canada combined (Government of Jamaica, Ministry of Labour statistics). This represented an annual average of 9,500 for men and 1,500 for women. In the most recent five-year period, 2011-2015, there were a total of 58,955 seasonal work contracts for men in the USA and Canada, and 7,700 for women (Planning Institute of Jamaica, 2011-2015). This represented an annual average of 11,791 for men and 1,540 for women, which was a slight increase in contracts for men and around the same for women.

Food Production

Jamaica and St. Vincent reflect a significant contrast in the emphasis placed on agricultural production *vis-à-vis* purchasing imported food, as the main thrust to sustain food security. Whereas in recent years, Jamaica's policy has been to encourage domestic food production – thus greater food self-sufficiency – as the principal means of ensuring sustainable food security, St. Vincent has not actively encouraged agricultural production. As a consequence, farming has become less of a priority, even for the rural poor, resulting in a greater degree of food dependency at the national level. Between 1990 and 2013 there was a dramatic reduction in agriculture's contribution to real GDP, which ranged from a small decrease of -2.5 per cent in Jamaica to a large decrease of -66.4 per cent for St. Vincent over the period (FAO, 2015a).

Nevertheless, these two states are not greatly dissimilar in the extent to which they have achieved the Millennium Development (MGD) Goal 1 target in reducing hunger (FAO, 2015a; FAO, 2015b; Fukuda-Parr and Orr, 2013). Undernourishment is the concept which underlies the MDG indicator of hunger, that is, people at risk of under-nutrition. This indicator focuses on food deprivation and looks at the minimum level of dietary energy consumption (FAO, 2015a). The percentage of undernourished in the Caribbean, including Jamaica and St. Vincent, has been trending downwards since the early-1990s (Table 2). St. Vincent also achieved the WFS target of achieving a reduction in the number of undernourished in the population (Ibid).

Jamaica and St. Vincent both inherited polarized agricultural structures: a centrally managed and supported export sector dominated by sugar in Jamaica and bananas in St. Vincent; and a generally neglected small farm sector producing fruit and vegetables and tubers for the domestic market and household subsistence (Beckford, 2011; Weis, 2004). In both countries the export crops, on which

TABLE 2
PREVALENCE OF UNDERNOURISHED PEOPLE IN JAMAICA AND ST. VINCENT

Proportion of the population undernourished (%)					
	1990–92	2000–02	2005–07	2009–11	2011–16
CARIBBEAN	27	24.4	23.5	20.8	19.8
Jamaica	10.4	7.3	7.0	8.2	8.1
St Vincent & Grenadines	20.7	16.8	9.2	6.8	6.2

Source: *The State of Food Insecurity (SOFI) in the World*, 2015 (FAO, 2015a).

they had depended in past decades, declined since the 1990s in the face of globally uncompetitive production internally and the loss of protected markets internationally.

Small holdings dominate the farm sector in terms of numbers in both Jamaica and St. Vincent. Some 85.6 per cent of agricultural holdings in Jamaica are five hectares or less (Agriculture Task Force, 2009; Barker and Beckford, 2008), with 76 per cent of the island's registered farmers cultivating one hectare or less (IICA, 2010; STATIN, 2007). Likewise, in St. Vincent, some 75 per cent of farms were found to be between 0.2 and 2 hectares in size and 85.66 per cent 4 hectares or less (FAO, 2008). Most small-scale farms are on privately owned land and, the rest, on land rented or squatted upon.

Small-scale farming is highly fragmented, with considerable variation in practice. A single farmer invariably has multiple plots in different localities, with various types of terrain to which farm techniques have to be adapted. Although in many situations the soils are fertile, most lots are located on steep slopes. As a consequence of this and the poverty of many farmers, the sector is characterized by low levels of mechanization and industrialization so that the cutlass, fork and hoe are still the main tools used for cultivating, and very limited agro-processing is done. In St. Vincent there is a lack of dedicated agriculture credit institutions. A limited number of banks and credit unions offer agricultural credit, but interest rates are said to be prohibitive. The income generated by small-scale farmers is generally low, with most households earning less than 25 per cent of total household expenditure from farming activities (FAO, 2012). Consequently, the larger proportion of small-scale farm household incomes is derived from a range of non-farm activities, among which seasonal labour migration can play an important part.

Poverty and Food Insecurity at the Household Level

Food security is conceptualized to be achieved when everyone has physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences to support their health and wellbeing (FAO, 2002). The inability to do so, whether in urban or rural locations, is conditioned by a number of factors, but food insecurity is generally most prevalent in households living under conditions of poverty¹ and most severe among the poorest of the poor or indigent.² Persons in this situation have limited or no access to physical and financial assets, little or no education, and often suffer from ill health.

The numbers of persons deemed to be in poverty in Jamaica in 2009 indicated that almost half a million Jamaicans (445,550 of a population of 2.7 million: 16.5% of the population) were living on US\$3 or less, per day (see Planning Institute of Jamaica (PIOJ) and Statistical Institute (STATIN), 2009). The numbers in poverty had decreased from 19.9 per cent of the population in 1999 to 9.9 per cent in 2007 (World Bank, 2015). The indigence level had also fallen from 25.7 per cent to 2.9 per cent over the same period. But the poverty level again rose after the global economic downturn

TABLE 3
POVERTY HEADCOUNT RATIO AT NATIONAL POVERTY LINES (% OF POPULATION)

Country	1995/96	1999	2007	2008	2009	2010	2012
Jamaica	nd	19.9%	9.9%	12.3%	16.5%	17.6%	19.9%
St. Vincent & the Grenadines	37.5%	nd	30.2%	30.2%	nd	nd	nd

World Bank data, 2015; St. Vincent & the Grenadines, Survey of Living Conditions.
nd = no data

of 2007/08 and returned to 19.9 per cent by 2012 – back to where it had been in 1999 (Table 3). The headcount index is a measure of the prevalence of poverty.

In St. Vincent there was an estimated 30.2 per cent of individuals and 20.8 per cent of households living below the poverty line in 2007/2008 (Government of St Vincent and the Grenadines, 2008). Significant strides had been made in decreasing poverty between 1995/1996 and 2007/2008, mostly in the area of indigent poverty. While the incidence of poverty was reduced from 37.5 to 30 per cent over the period, indigent poverty moved from 25.7 to a mere 2.9 per cent of the population (*Ibid.*). Data are lacking for more recent years but it has to be noted that 30.2 per cent of the population below the poverty line in 2008 was a high figure. The data also revealed that in addition to the 32.9 per cent of the combined population of the poor and indigent, another 18 per cent were found to be liable to fall below the poverty line in the event of economic shocks or other types of disasters. Therefore, the country had an overall vulnerability level of 48.2 per cent (*Ibid.*). When the poverty figures were disaggregated by locality, the data showed that poverty was most prevalent in rural areas. The prevalence of poverty in rural areas and the concentration of agricultural activities in rural areas were indicative of the fact that a sizeable number of the working poor were involved in the rural agriculture sector.

Also of note was the persistent pattern of consumption inequity among the populations of Jamaica and St. Vincent. Data from the Jamaica Survey of Living Conditions indicated that there had been only marginal decreases in the disparity between the consumption levels of the richest and poorest between 2000 and 2009. The lowest decile consumed 2.7 per cent of total while the highest decile consumed 29.0 per cent of the total in 2009 (Planning Institute of Jamaica and Statistical Institute 2009). In St. Vincent, the richest 10 per cent of the population accounted for 33.8 per cent of total consumption expenditure, while the poorest 10 per cent accounted for 2.8 per cent of total expenditure (St. Vincent and the Grenadines Country Poverty Assessment 2007/2008). Even locally grown foods can be considered relatively expensive in the face of low or no wages. The price of food can be linked to a decrease in agricultural production, inefficiencies in the agricultural distribution sector, the high cost of agricultural inputs and the high cost of transport (*Ibid.*). Such figures indicate that in both countries there is high risk of food deficits among the vulnerable members of the population.

METHODOLOGY FOR THE EMPIRICAL STUDY

This article draws on information from studies of Jamaica and St. Vincent conducted in 2011 (Thomas-Hope and Jardine-Comrie, 2011a; 2011b). The field methodology for the empirical study was based on stakeholder consultations, focus group discussions in a selection of rural areas, and interviews with a purposively selected sample of farmer households.

Stakeholder Consultations

Meetings were held in Jamaica and St. Vincent with senior officials in all Ministries and Agencies with responsibility for agriculture, rural development, labour, foreign affairs, trade, planning and social services. Discussions were conducted on issues relating to the agriculture sector, migration and remittances; details of the current migration programmes and the services offered to migrants, as well as the involvement of return migration and the diaspora in national development.

Focus Group Discussions

Focus group discussions were the basis of gaining an understanding of the impact of migration and remittances on agriculture, poverty and rural development from the perspective of farmers.

Cluster sampling was used to select the focus group participants. All focus groups included male and female farmers who had migrated in the past and who then, or at the time of the interview, still had relatives abroad, from some of whom they were receiving remittances.

In Jamaica, three focus group discussions were held with farmers in the parishes of St. Andrew, St. Elizabeth and St. Thomas, during April and May 2011 (See Figure 1). A total of 22 farmers, seven each in the parishes of St. Elizabeth and St. Andrew and eight in St. Thomas, participated in the focus group discussions. The farmers in St. Elizabeth were selected from the New Market and the surrounding area; in St. Thomas from the Yallahs and Albion communities; and in St. Andrew from the Halls Delight and Davis Hill communities. All persons in the focus groups were small-scale farmers, engaged in mixed cropping, with different crops grown on the various plots that comprised the farm. In St. Elizabeth, the crops were mixed vegetables, in St. Andrew, coffee and vegetables; and in St. Thomas, mixed vegetables and poultry. The mixture of farmers selected also ensured that a balanced view of the impact of migration and remittances on the farming communities would be obtained.

In St. Vincent, the focus groups included a total of 18 farmers, 10 from Greggs and the Lowmans Windward area, three from the Layou/Clare Valley area, and five from the Lacroix and Eve-sham areas of the Marriacqua Valley. In all instances, the farmers who had relatives abroad and were receiving remittances, as well as those who were not receiving remittances, participated in the discussions. As in the Jamaica case, the mixture of farmers was useful in ensuring that a balanced view of the impact of migration and remittances on the farming communities would be obtained.

Farmer Interviews

A purposive sample of farmers was selected from the population of focus group participants for personal interviews. Interviews were conducted with 12 farmers each in Jamaica and in St. Vincent. The selection was made based on the following criteria: that farming constituted a significant portion of the individual's livelihood; that the individuals had relatives who had migrated internationally; and that the individual received remittances. The interviews provided information that farmers did not wish to disclose in the group sessions, such as details about the amounts and frequency of remittances received, and how these funds were incorporated into the livelihood strategies of the farmers.

FINDINGS

Within the context of rural poverty, small farming livelihoods and household consumption coping strategies, it was evident that migration influenced food production and accessibility in various direct and indirect ways.

Migration and Food Production at the Household Small-Farm Level

At the level of the smallholder farm, migration impacted the food security of the poor both directly and indirectly, chiefly through:

- The migration of key persons from the household and farm; and
- The remittances that were sent or brought back home by migrants.

Migration of key persons from the small-farm production

The migration of key household members could cause both a reduction in the household labour force, with negative effects on food purchases and food production, and potentially also the abandonment of the household farm, with land left idle.

Absence of the household farm labour force

In Jamaica, when the principal farmer in the household – whether male or female – was abroad, labour was hired or other family members assisted on the farm. While there might have been some reduced farming activity during the chief household farmer's absence, production would not usually decline significantly or cease altogether. In one of the households interviewed in rural Jamaica, a female who had migrated had left her adult daughter to manage the farm. In most instances, the small size of plots meant that the farmers did not generally need to hire help. Farmers indicated that their need for labour was chiefly for land preparation and the harvesting of crops, rather than being required throughout the crop season.

It was noted that the migrants usually resumed their involvement in agricultural activity on their return. Persons engaged in recurrent migration on seasonal overseas work programmes were reported to be engaged in farming activities back at home during the 'off season' between contracts. Participation in this programme was also reported to have stimulated person's interest in farming. Farmers in rural Jamaica indicated that it was their involvement in the seasonal farm work in the USA and Canada that prompted them to take up farming as an occupation in the first place, since they had not been farmers prior to participating in the work programme.

Additionally, respondents reported that some persons brought selected seeds back from abroad on their return, as well as the knowledge of new techniques which they transferred. For example, some return migrants had replicated green house and hydroponics technology to grow crops, and the use of certain types of equipment, and new activities such as bee-keeping. The findings from interviews and focus group participants supported the view that migration improved the techniques used in farming and ultimately the productivity of farmers. Farmers in the parish of St. Elizabeth indicated that persons who participated in the farm worker programme reported that they had significantly improved production based on the techniques they had learned abroad (St. Elizabeth farmer, April, 2011).

Likewise, in St. Vincent, where critical persons in farming households migrated either permanently or on seasonal work programmes, there were situations where farming activities were sustained by the household members who remained at home rather than letting the lands be abandoned. As in Jamaica, the coping strategies adopted were that the farmer or another member of the household increased his/her workload, used hired labour, or completely changed the type of crop grown. A change occurred especially from the cultivation of crops such as bananas to less labour intensive root crops or vegetables. Rural to urban shifts and the unwillingness of young people to work in agriculture were felt to be more significant in terms of direct impacts on the availability of labour for agriculture than emigration. However, it was felt that the migration of young

people from St. Vincent as well as rural to urban moves (for example, from the Grenadines to Kingstown), were having an indirect negative impact on agricultural production and agricultural development. This is because the more educated persons left the rural areas, thus affecting the quality of the agricultural labour force. In light of the already ailing banana market, the migration of a critical member of the farming household appeared, more often than not, to trigger decisions to cease production.

Land abandonment

In the farming communities examined in Jamaica, migration was found to have no significant negative impact on the level of agricultural activity in the communities. In contrast to the situation in Jamaica, abandonment of agricultural land appeared to be common in St. Vincent. The fall in the extent of cultivated cropland since 2000 was indicative of this. Officials at the Ministry of Agriculture, as well as farmers across the island, also spoke of a decreased intensity of agricultural production and lands being left idle. Several factors, and not only migration, were identified as contributing to the abandonment of farming in St. Vincent. Many older farmers were not able to continue work and their children (many of whom were better educated than they were) refused to go into agriculture. Rural to urban residential shifts were also cited as a reason for the increase in land abandonment, and international migration was cited as a fourth reason.

Both in the stakeholder interviews, as well as in the farmers' focus group discussions and interviews, persons indicated that it was not possible to measure the specific impact of international migration on land abandonment because all four contributory factors occurred at the same time. Furthermore, remittances sent by migrants or money brought back when migrants returned did not appear to be increasing investments in farming activities, since migrants were not, in general, found to be buying lands for agricultural purposes and investing in farming activities at home. Respondents in the study were of the view that remittances did not, of themselves, contribute to the abandonment of land and farming. Instead it was noted that most of the persons in receipt of remittances were hard working and the remittances simply helped them to cover expenses, including the purchase of food.

Remittances and the impact on household food security

The impact of remittances on food security, as indicated above, occurred through:

- the direct purchase of food with the cash remitted; and
- investment in support of farming and household food production.

While the amounts of remittances in most cases were too small to significantly increase savings or investments, their greatest impact was on domestic expenditure and maintaining or raising living standards. It was, therefore, widely accepted that the greatest economic impact of migration on households was based on the amounts of remittances sent and/or brought back by migrants, and the ways in which these funds were used by the recipients to help improve the circumstances of themselves and their families.

Remittances and the purchase of food

Many small farmers did not operate their farms as businesses, so there was very little record keeping of the funds invested in farming activities versus other activities. Therefore, most farmers had great difficulty in accurately accounting for the proportion of funds consumed compared with that which was invested. When asked to estimate the share of remittances used in the home and on the

farm, the most popular response was “more in the house than on the farm”. Reference to “expenditure in the house” implied spending primarily on, or including, food.

Among the farmers interviewed in Jamaica, remittances provided a much needed supplemental income. It was not surprising, then, that the majority of farmers interviewed indicated that remittances were largely used for household expenses, namely purchasing food items, paying utility bills, purchasing small appliances. In some instances remittances enabled persons to meet medical expenses or to purchase school supplies for children. Additionally, most persons indicated that investments were also made in their farming activities and that an effort was usually made to save small portions of the remitted funds.

In Jamaica, respondents further noted that the factors that influenced the use of cash remittances included how the person remitting the funds had indicated the funds should be used. This was found to be particularly true when the sending and receiving parties were collaborating on a major project such as the building or renovation of the family home, when funds were being remitted for the care of children, or to sustain the farming business such as paying workers. Expenditure of money remitted also depended on the time of year that the funds were received and the particular need of the recipient at the time. For example, funds remitted during the Christmas season were more likely to be spent on the household, including food, rather than invested in farming activities. Funds remitted close to the end of summer were more likely to be used to aid back-to-school preparations in families with school-age children and grandchildren. Funds remitted when crops had just been planted and the farmer had no other immediate source of income, were more likely to be used for household expenses, including food. Funds remitted during the planting season were more likely to be used in land preparation and replanting.

In St. Vincent, the 2007/2008 Country Poverty Assessment identified remittances as being of critical importance to households. The data indicated that, on average, remittances comprised 22.1 per cent of household incomes across the island and 28.8 per cent of the income of poor households. Views were frequently expressed that if it were not for remittances received from relatives abroad, the poorer people in St. Vincent would be seriously lacking sufficient nutrition to maintain their health. The value of remittances was described by one respondent as follows:

... I am saying this and I am saying this in truth, is the people dem overseas that actually spin this economy (Personal interview, Layou Leeward, May 2011).

Other persons referred to the fact that without remittances they would not be able to meet their household expenses, such as paying electricity and telephone bills and purchasing food.

The share of remittances in the overall income of farming households ranged from 5 to 100 per cent. One female farmer claimed that remittances constituted 100 per cent of her income. The explanation given by this person, whose farm was half an acre in size and whose husband had migrated, is outlined below:

... I would put it up to 100 per cent. Because now you doing farming yes, but that farming - whatever income you receive from the farm – you have to put it back in the farm, so really and truly the farm does not sustain you (Personal interview Evesham, Marriacqua Valley, May 2011).

In this instance the respondent reinvested all the money she earned from her farm; she had excluded it from calculations of her income and regarded only the money received from abroad as her total income.

Remittances and household farming

In Jamaica, the majority of the farmers interviewed reported that the money remitted to them was partly used for food and household expenses and partly saved or invested. Both permanent and

seasonal migrants were reported to engage in the practice of acquiring lands with money earned abroad. These lands were usually acquired for the purpose of farming as well as housing. Seasonal migrants were more likely to purchase, rent or lease lands for farming activities, while permanent migrants were reported to purchase lands mostly to build their retirement homes. Among both government officials and farmers, the view was that the purchasing of land by return migrants had a negligible effect on land prices, with no significant inflationary impacts.

In St. Vincent, by contrast, the greater portion of funds remitted was used for consumer needs rather than invested in their farms. This was perhaps a result of the fact that the farmers interviewed were not thinking in terms of expanding their farm operations. Many were found to be eking out a living and/or supporting the family's subsistence from their farms, so they were concerned about the current uncertainties and risks associated with agricultural activities (no markets, no guaranteed prices and low prices). Therefore, it was not surprising that, in general, only 10 per cent of the monies remitted were directly invested in farms. Only one male farmer indicated that more than 10 per cent of the funds he received as remittances was invested in his farm.

While there was great variability in the portion of remittances invested by the participants, in general, men were found to have invested greater portions of their remittances in their farming activities than women. The figures reported by men ranged from 40 to 80 per cent while 20 to 60 per cent were reported to be consumed. Women reported figures of between 20 and 50 per cent invested on the farm, 30 per cent consumed, 40 per cent used in other projects such as building or renovating their homes and 10 per cent saved. Because of the greater value of remittances received by women the overall value of the investment in agriculture made by women was found to be greater. Nevertheless, a female farmer in St. Vincent expressed the view that the farm ought to make enough profit to maintain itself, and that only occasionally should she have to invest money received as remittances into it. Despite this view, there were some persons who were making indirect investments in their farms with monies remitted from relatives abroad. Because the funds had not been directly used to purchase lands or agricultural input they had omitted to count it as an investment in their farm. For example, respondents in the Jamaica sample indicated that investments in household farming activities chiefly amounted to paying for land preparation or purchasing small tools, fertilizers or planting inputs. Further, where the land was conducive to the use of mechanized tillage (as found in parts of the Parish of St. Elizabeth), private tractors and tractor services were hired for the preparation of land. Remittances played a critical role in providing the funds needed to meet such expenses. This corroborates earlier studies in Jamaica, where there was strong evidence that savings brought back by migrants played a very important role in supporting agriculture due to the labour that the farmer was able to employ (Ishemo et al., 2006).

In Jamaica, as compared with St. Vincent, remittances were found to have a positive impact on farming activities; persons were able to use portions of the funds received to purchase agricultural inputs and to pay workers, or to service their agriculture-related loans. Nevertheless, the overall level of the impact can only be described as small. This is because persons who indicated that they invested a portion of their remittances in their farms received sums of US\$100 to \$200 dollars per month and the portion invested was between 10 and 60 per cent of this, which meant that the amounts put into the farm were between US\$10 to \$120 per month. Although only small portions of monies remitted to farmers were invested in farms, this is not an indication that the majority of the funds received were used for the purpose of consumption. Most farmers who received regular remittances indicated that savings were made. It is important to note that higher percentages of investment were related to the payment of bank loans and not direct farm-related expenditures. For example, a female farmer noted that because of the passage of hurricane Tomas in September 2010, banana farmers had to borrow money from banks. Therefore, they had no choice but to use remittances to pay the money back, otherwise they would stand to lose their land. This is an indication that remittances were indirectly invested in farms through their use in servicing bank loans.

Such loans were found to use as much as 60 per cent of the remittances received in times when returns from the farms had declined on account of disasters.

The moribund state of Vincentian agriculture contributed to the lack of interest shown in investing remittances into farm operations. Instead, any positive impact on food consumption was almost entirely through the purchase of food along with other household requirements. The practice of buying land with remittances or money earned abroad was found to be prevalent, but these lands were mostly bought in order to build houses (retirement houses in the case of long-term migrants), and for speculative purposes. Both Ministry of Agriculture officials and farmers participating in the study indicated that lands were hardly being bought at that time for investment in agriculture. Many farmers were cognizant of the fact that there would come a time when they would not be able to work, so saving portions of the remittances received was seen as an important 'pension' strategy. Female farmers were more likely to engage in this practice than male farmers. In the case of women, it was frequently found that up to 20 per cent of remittances received were set aside as savings.

The overall situation was that migration had a negligible impact on agriculture in St. Vincent through the transfer of money, or knowledge, skills and technology. For example, although it was acknowledged that persons learned new skills and were exposed to a more positive work ethic while on the seasonal farm work programme, there was little evidence of transfer of this knowledge and experience from the participants to the local farming community. One of the factors responsible for this was that many participants did not have farms at home and were concentrating on building the family house rather than establishing farming enterprises in which to practice what they had learned. Of note was the fact that many Vincentian farmers were of the view that the farm should sustain itself, so that the practice of using remittances to invest in expansion and upgrading of the farm to improve productivity was not widespread. Remittances contributed to food security through the income it provided to purchase food.

Among Jamaicans, remittances accounted for 22.1 per cent of household incomes nationally, and for almost 30 per cent of the income in the poorest households (Thomas-Hope et al., 2009). In some households, the proportion of remittances was as high as 90 per cent of the total income. Some farmers actually stated that they depended on the receipt of these funds because their farming enterprises were not viable and the returns from them could not meet their household expenses. Further, remittance incomes and inflows from returning retirees were a significant driver of the construction industry in which a sizeable portion of the population, particularly the poorest, were employed. This is an indication that migration, especially seasonal labour migration, and more specifically remittances and earnings repatriated, were having a direct as well as an indirect positive effect on the wellbeing of the poor. This occurred not only in terms of reducing the level of indigence, as already mentioned, but also enhancing work opportunities in non-agricultural sectors, such as construction. In Jamaica and St. Vincent, international migration and the money remitted or brought back on the return contributed to the household economy and living standards, making a substantial impact on alleviating economic hardship and hunger among the poorer sectors of the population (Thomas-Hope and Jardine-Comrie, 2011a and 2011b). This impact was felt, either directly through the additional cash available to purchase food, or indirectly through supporting small farming.

CONCLUSION

An important aspect of food security is that food should be reliably accessible to people in the amount and range needed for their nourishment. This may be achieved through a combination of purchasing food and producing food locally by farming. International migration – both long-term and seasonal – has long been part of the livelihood opportunities of persons in Jamaica and St. Vincent, the two Caribbean states in this study. However, the differences of emphasis in the food

policies of these two small island states has led to greater focus on local food production and small farming in supporting food security in Jamaica than is the case in St. Vincent. As a consequence, in St. Vincent, migration is chiefly used by the rural poor to replace farming and, therefore, household food production, with migrants' remittances more often used to purchase food.

The observations made in this study indicate the role that migration can play, directly and indirectly, to support the food security of the poor. While the cash received as remittances is highly valuable for the household's ability to purchase food, the investment of remittances in small farm food production would seem to have a more positive long-term effect in reducing food insecurity. Therefore, the national policies relating to the strengthening of small farming are key in conditioning the environment within which the impact of migration on farming activities occurs. Greater efforts to support small farming could increase the extent to which international migration would support food production. In so doing migration could make a more positive contribution to reducing food dependency and, at the same time, increasing levels of consumption and enhancing the food security of the poor.

NOTES

1. Share of population living with less than US 3.10\$ per day, 1981 to 2013. Incomes per day are adjusted for inflation over time and for price differences between countries and expressed in 2011 PPP international dollars.
2. Indigent poverty refers to the condition when persons cannot meet their basic food needs (FAO, 2015a).

REFERENCES

- Agriculture Task Force
2009 *Vision 2030 Final Draft Agriculture Sector Plan*. Kingston: Planning Institute of Jamaica (PIOJ).
- Barker, D. and C. Beckford
2008 "Agricultural intensification in Jamaican small-scale farming systems: Vulnerability, sustainability and global change", *Caribbean Geography*, 15: 160–170.
- Beckford, C.
2011 "Issues in caribbean food security: Building capacity in local food production systems" in A. Aladjjiyan (Ed.) *Food Production - Approaches, Challenges and Tasks*, INTECH: Rijeka, Croatia, 24–39.
- Jones, F., A. Fearon, and M. Hendrickson
2014 *Implementation of the Cairo Programme of Action in the Caribbean (1994-2013): Evaluating Progress and Renewing Commitment*, in ECLAC Studies and Perspectives Series. UN ECLAC: Santiago, Chile.
- Food and Agricultural Organization (FAO)
2002 *The State of food Insecurity in the World*. FAO, Rome.
- FAO
2008 *Country Report on the State of Plant Genetic Resources for Food and Agriculture: St. Vincent and the Grenadines*. FAO: Rome.
- 2012 *Food Security Policies and State Commitments: Challenges to strengthening national efforts in the context of the Hunger-Free Latin America and the Caribbean Initiative*. Paper for a meeting of Working Group 2025. Hunger Free Initiative Latin America and the Caribbean, Georgetown, Guyana.
- 2015a *State of Food Insecurity in the CARICOM Caribbean: Meeting the 2015 Hunger Targets: Taking Stock of Uneven Progress*. FAO Regional Office, Bridgetown, Barbados.
- 2015b *State of Food Insecurity in the World 2015*. FAO, Rome. Meeting the 2015 international hunger targets: taking stock of uneven progress.

- Fukuda-Parr, S., and A. Orr
 2013 “The MDG hunger target and the contested visions of food security” Working Paper Series, The Power of Numbers: A Critical Review of MDG Targets for Human Development and Human Rights. School of Public Health: Harvard, Cambridge MA.
- Inter-American Institute for Cooperation on Agriculture (IICA)
 2010 *IICA's Contribution to the Development of Agriculture and Rural Communities in Jamaica* Annual Report 2009. Kingston, Jamaica: IICA.
- Ishemo, A., H. Semple and E. Thomas-Hope
 2006 “Population mobility and the survival of small farming in the Rio Grande Valley, Jamaica”, *The Geographical Journal*, 172(4): 318–330.
- Planning Institute of Jamaica (PIOJ) and Statistical Institute of Jamaica (STATIN)
 2009 *Jamaica Survey of Living Conditions (JSLC)*. PIOJ and STATIN: Kingston, Jamaica.
- Planning Institute of Jamaica
 2011/15 *Economic and Social Survey of Jamaica*. PIOJ: Kingston, Jamaica.
- Statistical Institute of Jamaica
 2007 *Census of Agriculture 2007* vol. 1. STATIN: Kingston, Jamaica.
 2012 *Census of Population and Housing 2012*, Kingston, Jamaica. STATIN: Kingston, Jamaica.
- St. Vincent and the Grenadines Country Poverty Assessment Report
 2007/08 Available at: www.stats.gov.vc/LinkClick.aspx?fileticket=gxP733Q3EZk%3D
- St Vincent and the Grenadines: Country Poverty Assessment
 2008 *Living Conditions in a Caribbean Small Island Developing State*. Final Report. Kairi Consultants: Trinidad & Tobago. Vol 1: xvi.
- St Vincent and the Grenadines
 2012 *Census of Population and Housing*. Kingstown, Department of Statistics: Kingstown, St. Vincent.
- Thomas-Hope, E.
 2015 *Trends Analysis of Labour Migration in Latin America and Caribbean 1990–2015 – The Caribbean, unpublished report*. ILO, Geneva.
- Thomas-Hope, E., C. Kirton, P. Knight, N. Mortley and M. Urquhart
 2009 *Development on the Move: The Impact of Migration on Development: A Pilot Study in Jamaica*. Institute of Public Policy Research and the Global Development Network, London.
- Thomas-Hope, E., and A. Jardine-Comrie
 2011a *Maximizing the Benefits of Migration for Sustainable Development and Food Security: Jamaica*. A Country Study for the Migration and Development Project Prepared for The United Nations Food and Agricultural Organization.
 2011b *Maximizing the Benefits of Migration for Sustainable Development and Food Security: St. Vincent and the Grenadines*. A Country Study for the Migration and Development Project Prepared for The United Nations Food and Agricultural Organization.
- Weis, T.
 2004 “(Re) Making the case for land reform in Jamaica”, *Social and Economic Studies*, 53(1): 35–72.
- World Bank
 2015 Available at: <http://data.worldbank.org/region/latin-america-and-caribbean>.