

The Effects of Migrant Remittances on Consumption in Highland Guatemala

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Abstract

This paper investigates the potential impact of migrant remittances on consumption in highland Guatemala. The process of international migration, remittances and changing consumption dynamics in migrant sending areas is critical to our understanding of rural development and environmental change. To determine the influence of international migration and remittances on migrant-sending community lifestyle patterns, the first author conducted 89 individual and one group interview in two western Guatemalan Highland communities. For the rural western Guatemalan case study communities captured by this investigation, successful economic migrants are increasing their material consumption. While many informants identify investments in human capital (children's education and healthcare) and small businesses as common uses of remitted income, almost every informant, first and foremost, mentioned the construction of a new home as the preeminent use of remittances. This finding contradicts our expectations that households would invest first in basic household necessities, suggesting that the economic conditions for international migrant households are superior to those of rural migrants.

Introduction

The dynamics that surround remitted income—how it influences receiving-community development and migrant household lifestyle—are receiving considerable attention from social scientists, economists, national governments, and multinational development agencies, amongst others. Investigators have studied remittances and poverty alleviation (de Janvry and Sadoulet 1989; Adams 2004, 2006; Adams and Page 2005), the promotion of local development (Reichert 1981; Appleyard 1989; Taylor and Wyatt 1996; Taylor 1999), the spurring of business investment (Durand et al. 1996a; Massey and Parrado 1998), the altering of agricultural practices (Jokisch 2002; Cohen and Rodriguez 2005; de Haas 2006; Taylor et al. 2006; Gray 2009), and the advancement of education (Kandel and Kao 2001; Edwards and Ureta 2003; Yang 2004) and health (Kanaiaupuni and Donato 1999). What is often absent in these studies is the potential countervailing influences of the migration process that facilitate remittance transfers. Combined, international migration and remittances provide an opportunity to observe how individuals and households from poor, developing regions respond both to boosts in income and immersions into cultures with different societal norms.

One critical area of interest that international migrants may illuminate is how individuals from developing areas impact the environment vis-à-vis material consumption. While it is likely a foregone conclusion that a rise in wealth will lead to a corresponding rise in material consumption (Kates 2000), it remains an open question how migrant households spend

remittance income. We initiated an ethnographic case study in two rural Western Highland Guatemalan communities to determine if return international migrants change both their material consumption patterns. This endeavor provides us with an indication of how population and consumption dynamics will play out in the future as rural areas of emergent economies slowly gain affluence in an era of globalization.

These questions are not merely academic; they are core to human-environment sustainability. Just over ten years ago, the planet's wealthiest countries—constituting approximately 20% of its human population—accounted for 86% of its annual natural resource use (UN 1998). Today, while individuals in the most (highest) developed countries (HDCs) have not dropped their resource consumption in the last ten years, their share of annual natural resource use has been encroached upon by the sharp rise in industrial growth in countries like China and India. Currently, lesser developed countries (LDCs) now account for approximately 60% of the planet's annual natural resource use compared with 40% in HDCs (WWF 2008).

Much like global climate change, the impacts of human population and consumption change are complex, ubiquitous and difficult to grasp in connection with the environment. Because individuals exact environmental harm both locally and globally, it is nearly impossible to make a direct causal linkage between population/consumption change and a concomitant change in pollution levels or on-the-ground land use change. Many studies have proffered links between population growth and deforestation (Allen and Barnes 1985; Rosero-Bixby and Palloni 1998; Mather and Needle 2000). However, most of these types of endeavors are complicated by other underlying forces including economic and political factors (Geist and Lambin 2002; Carr 2004). Consumption of natural resources, on the other hand, is even more abstract as multiple environmental harms may emerge during a product's (or its residual parts) lifetime. To adequately characterize environmental ills associated with the consumption of just one product requires a thorough accounting of numerous physical and chemical phases (natural resource extraction, processing, shipping, and disposal).

Nevertheless, the affects of population and consumption dynamics are critical to our understanding of environmental change. Considering concepts of ecological footprint or carrying capacity, our planet represents a fixed space with a finite supply of renewable natural resources that are increasingly being exhausted as more humans both populate the planet and elevate their use of these resources (Daily and Ehrlich 1992; Rees and Wackernagel 1994). Kitzes et al. (2008) found that in 2002, the rate of renewable natural resource consumption by humankind stood at 120% of the planet's ability to regenerate these resources—meaning instead of consuming exactly what was generated for that year, humans were tapping into natural resource reserves and jeopardizing the ability of the planet to produce these resources in the future. This situation is exacerbated by the ever present march of globalization which not only raises wages in both richer and poorer economies—enhancing the demand for resource consumption— but also increases access to a larger variety of products for consumption.

When one starts to devolve from the macro to the micro global economy, large segments of the world's immigrant population are deeply rooted in emergent economies. Due to resource inequity and scarcity amongst other push factors, many poorer households use migration as a means to diversify income streams, alleviate perceived disparities in wealth, and fund entrepreneurial ventures (Massey et al. 1993; Durand et al. 1996a; Taylor 1999). The emigration rate for all LDCs stood at 3.9% between 2000 and 2002, while Latin America and the Caribbean supported a 5.5% emigration rate (UN 2009). The concomitant return of remittances resulting from these migration events has skyrocketed in recent years and represents an important

contribution to numerous emergent economies. Global remittance flows more than doubled from \$132 to \$337 billion between 2000 and 2007 and constituted more than 10% of the GDPs of 24 developing nations including Guatemala—10.3% (IMF 2008).

While an emerging literature has begun to explore remittance impacts on land use and land cover change in migrant sending communities, much less is known about other potential environmental outcomes from remittance flows. Towards addressing this gap, we present a case study from the Guatemalan Highlands, which investigates potential environmental impacts of consumption conditioned by migration and remittances. The following conceptual framework section summarizes the relevant literature concerning the importance of population growth and resource consumption as indicators of environmental change both globally and locally in rural Latin American communities and proposes a theoretical construct for framing household responses to remittances. Following a description of methods used to carry out the case study investigation, we describe resource consumption change dynamics in response to international migration and remittance flows in select rural Guatemalan Western Highland communities. A summary of case study findings on consumption responses to migration and remittances follows. The paper concludes with a consideration of how an integrative perspective on migration, remittances, and rural household responses can guide future research and policy.

Conceptual Framework

Most research relating migration to environmental change has investigated forced displacement, particularly refugees (e.g., IOMRPG 1992; Hugo 1995; Kane 1995). Less research exists on migration compelled by chronic environmental deterioration (Lonergan 1998; Carr 2009). Exceptions include research on climatic change and migration from Oceania (i.e., Moore and Smith 1995) and in response to drought in sub-Saharan Africa (e.g., Findley 1994). Similarly, research has examined how people respond to changing environmental conditions (e.g., Bilsborrow 1987; Panayatou 1994), particularly vis-à-vis agricultural intensification or extensification (Turner II and Ali 1996; Moran et al. 2000; Carr 2008). But little research to date has investigated potential household responses to remittance influxes with a focus on environmental impacts. An exception is the emerging work on land use and land cover change (LUCC) facilitated by remittances (e.g., Jokisch 2002; Taylor et al 2006; Davis 2008).

While the LUCC investigations represent a compelling research avenue, there are numerous other ways that international migration of poorer migrants can influence the environment in sending/receiving communities and globally. From a household perspective, the separation of population and LUCC from migration and remittances belies the inherent interconnections among them. Do households make decisions to regulate fertility, change consumption patterns, or modify land use under the same types of contextual factors as they do to migrate in the first place? Or are the processes fundamentally distinct? Fertility regulation, consumption dynamics, and LUCC are not ultimate outcomes, nor is migration. Building on multi-phasic response theory, we hypothesize that migration is a last response to population and resource pressures in origin communities, once socio-economic and fertility options are exhausted (Davis 1963; Bilsborrow 1987; Carr et al 2010).

Beyond Multi-Phasic Response Theory: A Conceptual Model of Remittances and Consumption

A large LUCC literature explores agricultural intensification and expansion, as noted in the dotted arrow pointing from “land management” to “agricultural intensification and “agricultural

extensification” (Carr et al 2006; Geist and Lambin 2002). Population scholars focus on links between “household responses”, “fertility regulation”, and “migration”; economists investigate “household responses” and “off-farm labor.” Researchers separate these themes into disciplinary norms but households in the real world do not fit neatly into these top-down categories.

Households may respond in one or more ways simultaneously or sequentially, in response to demographic, political-economic, socio-economic, and ecological dynamics at international and local scales. Changing consumption, land, labor, capital investments, or fertility may result from a host of “pushes” or catalysts. The iteration examined here focuses on household decisions to consumption patterns following the decision of a household member to out-migrate and ultimately to remit money back to the origin household from abroad. Once a decision or suite of decisions has been made, other responses follow sequentially (and also potentially simultaneously) and the household once again is faced with external structures and processes that shape subsequent decision making.

This paper specifically explores rural household responses to remittances and consumption change. Scant data exists at the household or community levels on these outcomes. Following a modified multi-phasic approach (Davis 1963; Bilsborrow 1987; Carr et al. 2010), we are nonetheless able to organize the factors associated with these responses into the same four categories used to describe determinants of frontier deforestation (Carr 2004) and migration (Carr 2009): (1) demographic, (2) political-economic, (3) socio-economic, and (4) ecological. Where we extend and modify multi-phasic theory is in hypothesizing expected timing and order of responses to remittances among households in the same origin communities.

Migration, Remittances and Consumption

In a study relating the material consumption of returning Turkish migrants who spent time in a variety of locations (Germany, Australia, North Africa, and Gulf States), Day and İçduygu (1999) found the ownership of numerous examples of conspicuous consumption (cars, cameras, refrigerators, washing machines, and watches) to be much higher in migrant households than in non-migrants households. In Latin America, while arguing over the merits of remittances as catalysts of local development, virtually all researchers of this subject agree that consumption is the predominant use of remitted income. Durand et al. (1996b) summarized over a dozen remittance studies carried out in Mexico and reported that consumption accounted for between 66 and 93% of all remittance purchases. Their own survey of 1,501 migrants in 30 Mexican communities found 76% of all remittance spending went toward consumption.

When and in what direction might we expect a change in consumption in response to remittance inflows? We anticipate a net increase in resource use in general and in consumption specifically, accompanying a rise in material wealth in response to remittance inflows from more affluent economies. Specifically, we anticipate an increased impact on resources by remittance receiving households through increased consumption, first in basket necessities such as food and clothing, and later in luxury goods and vices, such as alcoholic beverages, tobacco, and foreign consumer goods. This article addresses one cycle of a multi-iterative process as households may respond to remittances (or not) by fertility regulation, shifts to or away from off-farm employment, changing consumption patterns, or modified farmland management.

Methods

Guatemala's Western Highlands provide an excellent opportunity to investigate how international migration and remittance transfers will influence local environmental change because they support high levels of rural to international circular migration and they currently support high levels of population growth with a 5.2 total fertility rate¹ (De Broe and Hinde 2006). The combination of these factors provides a ripe opportunity to explore whether international migration and remittances alter components of environmental change—namely fertility and consumption patterns. The two case study communities (Santa Rita and Sinai) lie near Guatemala's second largest city, Quetzaltenango and were selected for their high rates of international circular migration to the U.S. and associated receipts of remittance income. For the purposes of this paper, the two communities will be considered one entity as very little variation was expressed amongst the various attitudes and beliefs concerning fertility and consumption in response to international migration and remittances. The communities are small demographically (1,200-1,500 inhabitants) and geographically (12 km²), support high percentages of indigenous Maya (75-90%), and contain equal percentages of Catholics and Evangelicals. Their adult literacy rates range between 40-70% while half of all their children graduate from the sixth grade.

To determine the influence of international migration and remittances on migrant-sending community lifestyle patterns, the first author conducted 89 individual and one group interview in two western Guatemalan Highland communities (Figure 1) from February to July in 2008. Through snowball sampling methods, interviews captured the opinions of eight local and regional government officials, four directors of community health care clinics, one group of 15 women, and 72 parents (43 mothers 29 fathers). Participant observation and archival analysis complemented interview data. Informants were interviewed with a standardized survey instrument about international migration experiences, remittance transfers and changes in patterns. Additionally, we were able to characterize pre- and post-migration household fertility based on children's ages and dates of migration events. Interviews generally lasted 15-40 minutes and probed the attitudes of community members through consistent but informal, open-ended interview questions. A female Guatemalan research assistant accompanied the first author during most of the interviews to help facilitate interactions and to ease any anxiety informants may have felt do the presence of a foreign interviewer.

{Insert Figure 1}

Figure 1. Departamento de Quetzaltenango, Guatemala

Migration, remittances and consumption

Rural Guatemalans use international migration and remittances as a means to fulfill many purposes: to alleviate poverty, to address perceived disparities in community wealth, as a way for young men to prove they can provide for a family, and as a catalyst for starting a small business. Not all households use remittances similarly; much depends upon who receives the remittance, how affluent the household is when it receives the remittance and how long a migrant has been earning income in the U.S. This section describes the conditions under which different households chose to use their remittances. For the purposes of this study, remittances are defined

¹ Guatemala's 2009 total fertility rate is 4.4 (PRB 2009).

as money earned in the U.S. and returned to migrant-sending households (wired or returned directly) or goods purchased in the U.S. with migrant wages and returned to sending households.

Remittance uses

As reported by 84% of all informants, new home construction was the primary reason that most individuals from migrant-sending communities opt to send migrants to the U.S (Table 1). The second and third most common uses of remittances were the purchase of household maintenance supplies and to assist with the improvement of a child's education through the purchase of school supplies and uniforms or to pay for private school tuition or transportation to school. Nearly half of all informants also stated that small amounts of remittances were used to assist with agricultural operations including the purchase of soil amendments (fertilizers and pesticides) and seeds, to hire labor – principally when one or more family members were away – or to fund the occasional purchase of additional agricultural land. One informant pointed to a tractor that was purchased with remittance income (this was an anomaly as it was the only tractor witnessed during six months of fieldwork). Nearly one quarter of all informants mentioned that migrant-sending households use remittances to launch small businesses and to purchase automobiles. A majority of all car purchases were made in the U.S. and driven back to Guatemala by returning migrants. A host of other “non essential” purchases were also reported by a few informants including household appliances (refrigerators, washing machines), furniture, and entertainment equipment (cable, cell phones, computers, internet, stereos, televisions). The community leader of Sinai stated that his brother annually sends money to pay for *la Navidad* (Christmas) festivities for the community. While not asked directly, seven percent of informants also listed debt repayment as a primary use of remittances. As described below, debt repayments are certainly an important remittance use in the early stages of migration.

Table 1. Reported remittance use by 86 informants
{Insert Table 1}

The temporal nature of remittances uses

There is a distinctive temporal quality to the way remittance income is spent. Because a large proportion of international migrants require loans to fund initial sojourns², the first item to which remitted income was allocated toward was debt repayment. Additionally, remitted income was almost always used to cover basic household expenses in the near term including food and clothing purchases, utility payments, and to cover the cost of health care. However, households who had received sufficient income to fully repay debts often invested remittances to make home improvements or to fund new home construction which included the purchase of a small piece of land for the new home.

Households with visible wealth disparities used remitted income to fund the construction of a very large and often ostentatious home. Such home construction appeared to be related to a relative deprivation effect where the household feels the need to demonstrate to the community

² The current rate to hire a coyote to guide an “undocumented” Guatemalan migrant through Mexico and across the U.S./Mexico border is about \$4,500—just below the per capita GDP (PPP) in Guatemala (\$4,568) (World Bank 2008).

that they have achieved a certain level of wealth (Massey et al. 1993). A high percentage of these larger, remittance-financed homes sat vacant while their owners continued to work in the U.S.

Business investments do not occur until after basic household needs are met, loans repaid and new homes constructed. A high majority of businesses funded with remittances were quite small. They often entailed the construction of a *tienda* or *farmacia*, the purchase of a minivan or car to use as a taxi, or the modernization of a weaving operation. Henri, a return migrant who spent six years in the U.S. invested surplus remittance income on the construction and outfitting of a photocopy/internet café business. Other entrepreneurs have purchased 4x4 pickups from the U.S. for resale to area farmers. The only large-scale investment reported during this investigation was from an older father who had purchased several hectares of a coastal coffee plantation with his son's remittances.

Differential migrant-sending household aspirations

Two important factors that help explain the how and why of remittance uses by migrant-sending households are the demographic/economic condition and the life stage of the remittance receiver. For instance, several male migrant returnees who had left for the U.S. as young (15-19 years old), single adults stated that for them, migration fulfilled two purposes: (1) it served as a rite of passage that most young men in their communities would fulfill and (2) it provided a means to earn and save sufficient money to eventually return and build a home in their native communities with the intention of enticing a prospective bride. A similar dynamic was reported for Mexico by Conway and Cohen (1998).

A second sizeable group of remittance earners/receivers were young, married couples who either migrated together or sent one member abroad. Given the high levels of poverty and the land scarcity, this group used international migration as a means to establish themselves. In these cases, money was sent home to cover household maintenance expenses (food, clothes, medicine) and was saved to eventually purchase a small plot of land to build a small house with an adjoining subsistence farm plot. Additionally, these families used some remittance money to send their children to school.

A third class of migrants who were older and more established—they owned a home and had a small plot of agricultural land—used migration to either jumpstart a small business or to improve their community standing by using remittances to construct a modern house, buy a newer car and/or expand agricultural land ownership. For these households, international migration was a means to diversify their income portfolio—funding agricultural expansion or business startups—and/or responding to feelings of relative deprivation by improving their perceived wealth status.

The last group of remittance receivers encountered was non-nuclear family members (parents, sisters, brothers, cousins, etc.). For this group, remittances were largely received infrequently and in small amounts. Thus, these gifts were disproportionately used to supplement household expenses including food, clothing, and medicine purchases or to pay utility bills.

Discussion

As expected, remittance-receiving households escalated their consumption. While new home construction was the most cited and substantial use of remittances, wealth infusions were also used to cover basic subsistence living costs, and to supplement costs associated with children's

education and farming activities. While living standards in Guatemala remain modest compared with the U.S. even after successful migration journeys, the difference in levels of material comfort between successful migrant-sending households and the average non-migrant household was striking. The winners of the migration gamble often return to newly constructed, multistoried, concrete houses that dwarf the modest adobe houses of their non-migrant neighbors (Figure 2). These modern houses were outfitted with modern sanitation, indoor bathrooms, cable television, finished floors, and are connected to the electric grid. This is not always the case for poorer rural homes. The most successful migrants also owned a car and flaunted their elevated status by driving even the shortest distance such as to pick up their children from a school that was less than a mile away. Successful migrants further displayed wealth through the conspicuous purchase of cell phones, modern appliances and video games for their children.

{Insert Figure 2}

Figure 2. New home construction for an absentee migrant with his childhood home in background, Sinai, Guatemala.

Conclusion

For the rural western Guatemalan case study communities captured by this investigation, it does not appear that economic migration begets a balanced environmental checkbook. Instead, successful economic migrants are increasing their material consumption. While many informants identify investments in human capital (children's education and healthcare) and small businesses as common uses of remitted income, almost every informant, first and foremost, mentioned the construction of a new home as the preeminent use of remittances. This finding contradicts our expectations that households would invest first in basic household necessities, suggesting that the economic conditions for international migrant households are superior to those of rural migrants (Carr 2009). As reflected in Table 1, desires to obtain items of conspicuous consumption by-in-large pull individuals to the U.S., corroborating our expectation that luxury items will likely follow the purchasing of necessities as conspicuous consumption items are symbolic of migrant aspirations and tangible evidence of the actualization of the same.

This research is an attempt to begin to conceptualize and observe household consumption and fertility responses to remittances in a developing world context. This investigation does not address the unsuccessful migrants who will never increase their consumption nor gain substantial exposure to the U.S. culture. Nor can the findings presented here be extrapolated beyond the case study context. Future research may pursue cognate conceptual approaches in further probing potential population and consumption outcomes of remittances in other developing world contexts. Ultimately, if patterns emerge through further case studies, theory can be modified, and quantitative surveys may be applied to measure globally these phenomena of critical importance to human and environmental sustainability.

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Figures and Tables

Figure 1. Map of Guatemala and case Study Communities

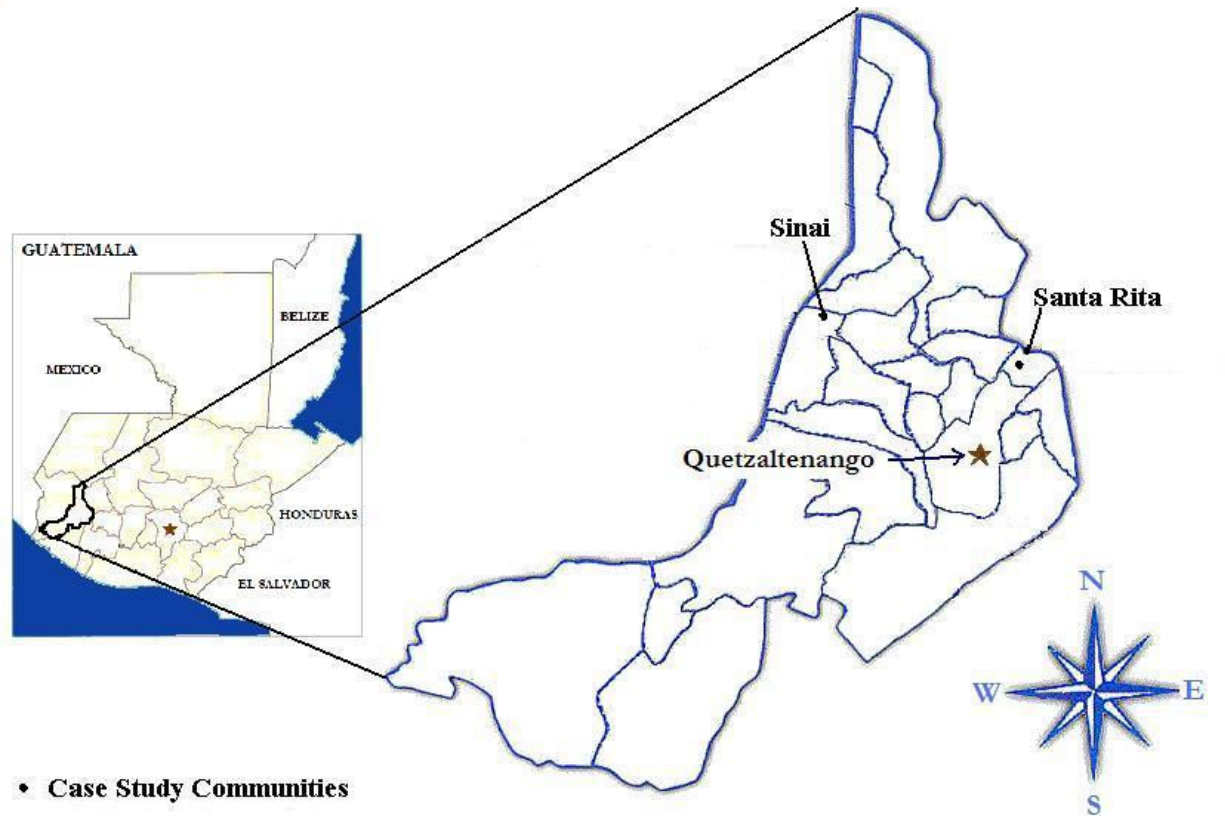


Figure 2. New home construction for an absentee migrant with his childhood home in background, Sinai, Guatemala.



Table 1. Reported remittance use by 86 informants

Type of Use	N	%
Home construction or improvement	72	0.84
Household maintenance purchases (food, clothes, power, gas, water, and medicine)	48	0.56
Assistance to children's education (computers, school supplies, transportation, tuition for private schools and colleges, uniforms)	48	0.56
Agricultural purchases (fertilizers, labor, land, mechanized equipment, pesticides, seeds)	39	0.45
Small business investments	22	0.26
Vehicle purchases	21	0.24

Non-essential item purchases (refrigerator, washing machine, television, stereo, video games, cable, internet, furniture, computer, cell phone, fiestas)	12	0.14
Debt repayment	6	0.07
