

# Rural-urban linkages in development: Is strengthening agriculture the best way forward? A case study from Guatemala



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## Introduction

When it comes to international aid work, most theorists and practitioners specialise in either 'rural' or 'urban' development. But is the distinction between the two really quite so simple and if it is not, then what is the reality, how did it come about and what does it mean for people's lives?

These were broadly the questions I set out to investigate in the summer of 2011 during four months of fieldwork for an MSc in Development Studies supported by an award from TAAF. The research was conducted in the city of Sololá, the capital of a municipality and department of the same name in the Western Highlands of Guatemala. In particular, I chose to explore the existence and effects of rural-urban linkages on livelihoods and food security of the country's poor.

### Box 1: Food Security

Food Security exists "when all people, at all times, have physical and economic access to sufficient safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (FAO, 1996). It depends on availability and stability of access to, and correct usage of, a healthy, culturally appropriate food supply.

## Rural-Urban Linkages Approach

The rural-urban linkages approach to development has come about as a result of widespread observations of the changes occurring in developing countries. Firstly, what constitutes a rural or urban area has been increasingly difficult to define as national population-based definitions fall redundant. For example, it is widely cited that Latin America has undergone rapid urbanization and is now 75% urban. Yet, as Chomitz & Thomas (2005) showed, on closer inspection 45% of the people in that category live in low density places within an hour of urban centres and many of even the most clearly 'urban' residents and their 'urban' locales are embedded in an agriculturally-based countryside (see Box 2 for the Sololá example).

Secondly, people's work no longer fits into neat categories of being entirely rural or urban. People have diversified their livelihoods into a variety of urban and rural activities in order to manage risk and seek out alternative income streams in the face of

poor access to land and diminishing, and increasingly unstable, farming incomes that render subsistence-agriculture and agricultural day-labour insufficient food security strategies. Meanwhile, peri-urban food production and growing urban agriculture have emerged as strategies for food security, whilst growing rural-urban and international migration over the last few decades has ushered in an unprecedented growth of remittance flows.

Proponents of the approach recommend strengthening linkages to enhance development and food security efforts. This can be done through: infrastructure and communications development to facilitate spatial flows of goods, knowledge, money and people (within and across borders); decentralization of government to improve linkages in service delivery; and combining rural and urban development plans to facilitate forward and backward sectoral linkages between agriculture and more urban industries.

### Box 2: The Urban City's Rural Face

Like all municipal capitals in Guatemala, the city of Sololá is considered 'urban' by the national statistics office with the latest official population being 68,120 people. Whilst this figure would 'feel' far too large to any visitor, warranting further investigation, it builds a certain image in the mind of a distant reader. Imagine the difference in analysis and policy recommendations if one was told that in fact only 8,851 (barely 13% of the official figure) people actually reside in what can be deemed urban spaces.

National statistical classification is not the city's only rural-urban misconception. Walking around the city reveals that even the lives of the city's urban residents are steeped in rural activities, whilst its outer edges are embedded in an agricultural countryside. It is not uncommon, for example, to see chickens, geese and turkeys in backyards and on rooftops. Meanwhile, the city's built-up southern edge is buffered from the lakeshore by a couple of hundred metres of small family plots and an occasional grazing cow, whilst to the north, just as rapidly, a concrete cityscape makes way for a patchwork of fields of corn planted on steeply sloping, marginal cliffs. The residents of the city maintain agricultural activities in the belly of the beast, whilst in all directions from the centre a few steps can, in an instant, transport you from 'urban' to 'rural', blurring all definitions and divisions in a complex hybrid space.

## The study

My research was carried out using a mixed-methods approach including: participant observation; community focus groups; semi-structured interviews with market vendors, wholesalers and customers, designed using the DFID sustainable livelihoods model in order to incorporate the different forms of capital that affect people's lives (human, natural, social, financial, political); food frequency questionnaires; and interviews with expert informants ranging from FAO Directors to senior representatives of NGOs, hospitals and local government departments.

Guatemala is a middle low-income country with a large rural (65%) and indigenous (40-60%) population who face a myriad of challenges. Despite steady GDP growth, (ranging between 2.3% and 6.3% per year with the exception of 2009 when it grew only 0.55%), according to the World Bank, half its people are poor with 72% of rural and 76% of indigenous populations living below the poverty line. Eighty seven percent of the rural Guatemalan poor are estimated to depend on agriculture either as subsistence farmers or agricultural day labourers. Despite overall food availability, it suffers the world's fourth highest child chronic malnutrition rate of 43.3% (greater than most sub-Saharan African countries) and is currently in the grips of an acute food security crisis. In addition, at 29%, it suffers very high adult obesity and overweight rates, primarily among the urban poor, due to over-consumption of "junk foods", resulting in substantial and increasing risk and occurrence of heart disease and diabetes.

## Most relevant findings

Even though Sololá is considered an urban city, the lives of Sololátecos are found to be steeped in rural and agricultural activities (Box 2). Despite living in the city, most people retain rural links either through extensive urban agriculture or through ownership of farmland outside the city. Such activities have been found to have positive effects on dietary diversity and food security of Guatemala's urbanites (Zezza & Tasciotti, 2010).



Figure 1. Women cooking corn tortillas in the market

Although over eighty percent of study participants owned farmland, none owned enough to meet family subsistence needs (86% owned 10 acres or less). Many complained that the land does not produce enough for the family, so they buy much of their food in the market. Some 62% of rural residents and 70% of urban dwellers drew no cash income from their land at all, growing mainly maize and beans (the country's staples) for family consumption. All families had diversified to non-

farm income to meet their other needs, as one lady explained: *"Right now I have a thousand occupations and work in many different places, we do what we can to get food"*.

Depending on educational levels, these occupations include: agricultural day labour, making and selling traditional clothes and jewellery, logging, construction work, running small refreshment stalls (Figure 1), teaching and domestic work. Importantly, these have the effect of connecting rural residents to urban spaces and vice versa.



Figure 2. An intermediary fruit retailer

Vitally, whereas previous research of Guatemala's regional markets (Murakami, 1997) found them to be dominated by farmers selling their own produce, today, Sololá's market is comprised mainly of intermediary sellers (Figure 2), which could be seen as a livelihood 'specialisation' strategy dividing people into either producers or sellers of agricultural produce, rarely both. They buy goods from local wholesalers, who in turn buy from national and regional wholesalers who buy at the farm gate. They travel great distances (up to five hours each way) to sell at different large regional markets six to seven days a week. Tracing the supply chains of different fruits, vegetables and animal products shows that they have significantly lengthened in less than two decades, so much so that any given product exchanges hands up to five times before it reaches the consumer.

What is interesting about the narratives of Sololátecos is that much of their livelihood diversification and specialisation has not come about as an income accumulation strategy, but rather as a coping mechanism to deal with several agricultural push factors:

1. Shortages of land due to historically vastly unequal land distribution that began with dispossession through colonization and continues to date (0.2% of powerful elites control 70% of arable land), confounded by high rural fertility rates of up to 15 children per couple (Box 3) that decrease inter-generational inheritance.
2. Declining land productivity due to the chemical treadmill of increasing dependence on expensive inorganic fertilizers set in place during the Guatemalan Green Revolution and exacerbated by widespread soil erosion.
3. Reducing profitability of agriculture, since agricultural wages have remained stagnant despite a generally rising GDP, whilst the costs of imported agricultural inputs have increased, with biggest jumps experienced during times of economic shocks such as the current global crisis.
4. Increasing risks associated with agriculture as an income source since Guatemala is subject to unpredictable weather

patterns: huge agricultural and infrastructure losses were incurred during hurricanes Mitch (1998) and Stan (2005), the 2009 El Niño, and hurricane Agatha (2010), to name but a few.

Livelihood diversification has not led to any great improvements for Sololátecos; according to USAID, 64% of the department's children are chronically malnourished, while 28.6% of its men and 46.6% of women are obese with 70% of adults exhibiting symptoms of diabetes (Monterroso *et al*, 2002).

### Box 3: The “Ruralisation” of Guatemala

According to the UNDP, the rural indigenous Guatemalans are reproducing at twice the ladino (white or mixed-descent) rate, essentially compensating for any rural to urban migration. There are signs of this slowing, however, since the average number of siblings in the study was 7.24, but an average number of children among those who had finished reproducing was only 4.90 (N=30).

## What does this mean for policy and practice?

The majority of the literature argues for the need to enhance rural-urban linkages in order to facilitate income accumulation and, thus, support people's livelihoods and ensure food security. Such generalisations are unhelpful in practical contexts and the broad-based recommendations can engender more harm than good. Local investigations are vital and whilst many government departments, NGOs and donor groups still work on Guatemala's 'rural development', rural-urban linkages remain an uncharted territory. The research at hand was an attempt to begin to bridge that gap. Whilst a comprehensive land reform that addresses the vast inequalities in, and concentration of, land ownership would be the most effective way to begin to alleviate the poverty and malnutrition problems of Guatemala, the findings point to some useful practical possibilities for micro-level intervention. Six of the most relevant to readers of *Agriculture for Development* are addressed as follows.

1. Time and resource constraints prevented an investigation of the effect of the growth of commodity supply chains on the value that each actor along the chain is able to extract. However the possibility exists that interventions to better link farmers directly to urban and peri-urban markets and improve their financial lot at the farm-gate could be warranted. The supply chain requires further investigation without a pre-determined assumption that the intermediary traders are inherently exploitative; the observed specialisation in producing and selling has obviously created viable self-employment for the intermediaries and may have created more wealth all around.
2. The most common preservation activity in Guatemala is the drying and salting of fish, shellfish, grains, legumes and spices. Surplus fruit and vegetable conservation, however, is non-existent though the country enjoys plentiful strong sunshine and clear blue skies. Projects teaching families or cooperatives simple drying methods for pineapples, mangos, tomatoes, peaches and the like, that allow the foods to be preserved refrigeration-free for up to a year, could be highly beneficial in terms of managing seasonal shortages (thus improving food security), reducing food waste and preventing end-of-harvest fire sales, thus ensuring more income through a higher value product (for sale domestically or internationally).
3. Similarly, many agricultural projects in Guatemala promote the sale of raw produce rather than higher-value added, processed goods. As the Director of the Guatemala Ministry for Agriculture said, for poverty reduction and food security enhancement, urban-like processing facilities need to come to rural Guatemala to encourage local production of expensive products such as soy, preserves and jams, tinned sauces, fruit and vegetables. Projects injecting valuable financial and knowledge resources to such initiatives could thus be vastly beneficial.
4. Projects aiming to strengthen both rural and urban agricultural production would be one of the keys to better livelihoods and to ensuring food and nutritional security. For this to work, investments are needed in:
  - Technologies, such as no-till, organic and/or agro-ecological production methods that heal the land. Such practices tend to lower production costs over time and reduce reliance on high cost purchased inputs.
  - Prioritising conventional biotechnologies such as breeding, tissue culture, cultivation practices and fermentation over genetically modified (GM) solutions in order to encourage long-term sustainability of production and minimise reliance on external sources of germplasm.
  - Combining traditional local and scientific knowledge systems and practices for greater ownership of projects.
  - Encouraging community management of land, seed banks, grain repositories and other resources to manage seasonal and adverse weather shortages, whilst encouraging sustainable management of natural resources.
5. Since the 1980s, strengthening producer links to international markets through switching to the production of non-traditional export crops (NTECs), such as broccoli, snow peas and cardamom, has been the strategy of major donors in Guatemala, such as USAID, Taiwan International Cooperation and Development Fund and the Food and Agriculture Organisation. To-date, NTECs continue to be prioritised, citing benefits of a higher-value alternative to traditional subsistence and cash crops.
 

However, there are several problems associated with NTEC production: farmer vulnerability to market vicissitudes; high barriers to entry; production of food for sale instead of consumption; increasing diversion of land away from food production towards biofuel crops; the resultant reduction of availability of domestic staples; and so on. Meanwhile, the financial and nutritional benefits to farmers flowing from NTEC production have been contested in a number of World Bank and Oxfam studies, as has the future viability of growing non-traditional crops in the face of predicted climate change. Reducing linkages with international markets and focusing on helping farmers switch back to production of local varieties could, therefore, help not only to address the long-term financial and climatic sustainability of agriculture, but could also address the food and nutritional security needs of the population at large.
6. Finally, it will be imperative for future projects to adopt holistic approaches that recognise rural-urban links and the vital and central role that agriculture plays not only in the economy, but in food security and the physical and even



mental health of Guatemalans. Part of the growing double burden of malnutrition (simultaneous existence of child malnutrition and adult onset of obesity) can be attributed to the increasing reliance of people on the market for their food and the imbalance created by trade liberalisation policies that have ushered in an unprecedented growth of the processed/junk food and drink industry, whose cheap, usually imported products undercut prices of healthier local alternatives. Strengthening agriculture in both rural and urban settings could help counter these trends.

## Conclusions

In conclusion, the growth of rural-urban linkages in people's lives is a reality. However, further research into their causes and effects in Guatemala is vital for effective, evidence-based policymaking and project design. The findings of the research at hand point to a need to rethink traditional approaches to rural development in Guatemala, to take into account urban development as well and the linkages between the two. In the absence of political will to implement a land redistribution programme, projects focusing on strengthening both rural and urban agriculture, at the subsistence and domestic commercial levels, may well be the best route forward. This is in line with findings elsewhere that, compared to growth in secondary and tertiary sectors of the economy, agricultural growth can be more effective in poverty alleviation (Ravallion & Chen, 2004). Business as usual, however, will not do. Re-localising and re-naturalising agricultural production, encouraging value-added processing and conservation, and encompassing traditional forms of knowledge and community management of resources into agricultural production, hold the best hope for sustainable livelihoods and for solving Guatemala's food security crisis.

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