



Agricultural Policy Research in Africa



RURAL TRANSITIONS,

ECONOMIES AND RURAL-URBAN LINKS

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ABBREVIATIONS AND ACRONYMS

GDP	Gross domestic product
HABP	Household Asset Building Programme [Ethiopia]
IFI	International Financial Institution
IFPRI	International Food Policy Research Institute
LACA	Land and Agricultural Commercialisation in Africa
LED	Local economic development
MSCF	Medium-scale commercial farm
NGO	Non-governmental organisation
OFSP	Other Food Security Programme
PDA	Population and Community Development Association
PSNP	Productive Safety Nets Programme, [Ethiopia]
RNFE	Rural non-farm economy
SMEAD	Space, Markets and Employment in Agricultural Development
TNAU	Tamil Nadu Agricultural University
TVE	Township and village enterprise

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SUMMARY AND KEY MESSAGES

Introduction: rural transformations and transitions

Agricultural development takes place within the wider context of overall economic development. In the process, changes in agriculture – such as the increased commercialisation of farms in general and smallholdings in particular – interact with those in the rest of the rural economy and in the urban economy.

As economies develop, in most cases their structure changes as agriculture declines in importance relative to industry and services. Yet agriculture usually grows absolutely, often ahead of population growth; while ideally labour productivity rises, allowing release of labour from farming to other activities. People move from rural to urban areas, cities grow, and economies become urbanised. A demographic transition takes place as well, as both death rates and birth rates decline, the latter after a lag during which population grows rapidly. Hence development usually brings both a structural transformation of the economy from one dominated by agriculture to one where manufacturing and services make up the bulk of activity; and a transition from a largely rural to a mainly urban society.

Aims of this paper

This paper aims to summarise existing understandings of these changes, focusing on three aspects: the rural non-farm economy (RNFE), rural–urban links and migration from rural areas. In addition, social protection has been added since this is another key aspect of rural livelihoods, likely to increase in importance with growth and development.

Taken together, understandings of these topics complement those of agricultural development, to create a full picture of rural livelihoods.

From these understandings, the paper then sets out an agenda for researching these topics within the APRA framework.

Current understandings

The rural **non-farm economy (RNFE)** consists of a highly varied collection of activities, usually more services than industry, many of which are linked to agriculture. Much debate has centred around the quality of employment in the RNFE and the motivations for working in the sector. On the one hand, some RNFE activities are petty, under-capitalised, generating very low returns to labour; undertaken because people on low incomes with few options pursue them for lack of anything better. On the other hand, RNFE activities can be more productive, better rewarded than agriculture; undertaken since they represent an opportunity to earn more than in farming. The balance between the former and latter activities in the RNFE depends largely on the dynamism of agriculture and the national economy in general: when these thrive, the RNFE tends also to thrive, generating more and better options for rural workers.

The agricultural link can be particularly strong: when agriculture grows, it generates additional activity in the supply chains both upstream – inputs, services – and downstream – processing, storage, transport – of the farm. Moreover, when farmers earn more, some – a large share in the case of smallholders – will be spent on goods and services in the local rural economy.

The close association of the RNFE with agriculture applies to policy as well. Both sectors benefit from an enabling rural investment climate, as well as from public spending on roads, electricity, education, health and water.

Increasing concentration of population in urban areas, both through population growth and migration, plus investments in roads tends to increase the access of many rural people to urban areas. Closer **rural–urban links** potentially create expanded and new opportunities for rural households – both in agriculture and in non-farm activity. These take on a range of forms, depending in part on the scale and nature of urbanisation: the degree to which the cities generate productive activity ('consumption' or 'production').

The links can lead to more demand for agricultural produce, especially higher-value items, to an increase in supply of manufactured inputs and services for agriculture, productive interactions between rural and urban manufacturing, and the stimulus of urban demand for leisure and environmental services in neighbouring rural areas. Some rural households may see members commuting or migrating to urban areas, leading to households with multiple sites.

Social protection has the potential to play a critical role in this structural transformation, as rural households embark on a range of livelihood choices and pathways. Some poor smallholders might be able to harness opportunities for ‘stepping up’ into commercially sustainable agriculture, others will ‘step out’ of agriculture altogether into productive non-farm work. Both types of households will likely benefit from graduation model programmes comprising cash and asset transfers with asset packages, microcredit and training. Other households, however, may have no choice but to ‘hang in’ the rural sector, as agriculture commercialises around them. Safety nets and cash transfers can play a vital role for protecting them against negative livelihood outcomes. Such measures can also encourage multiplier effects and local food consumption in the rural economy.

Key questions for APRA research

Questions for understanding rural transformations and transitions could include:

1. What is the overall context of economic transformation?
2. What are the drivers of rural transformation?
3. What are the consequences of rural transformation for the livelihoods of rural people?
4. What are the factors that constrain certain households/groups from productively participating in rural transformation?

The following questions are important for the RNFE:

5. What kind of growth of agriculture and its supply chains tend most to stimulate the RNFE?
6. What are the prospects for creating local jobs that can be taken up by low-formally skilled (‘unskilled’) farm household members?
7. What policies, public investments, collective actions, etc. best assist the development of the RNFE?

8. What is the nature of RNFE interactions with agriculture?

Questions that APRA could explore for rural–urban linkages and migration include:

9. What is the relationship between different agricultural commercialisation pathways and small-town development? To what extent do rates of intensification and commercialisation differ spatially?
10. How does the rural–urban spatial continuum influence household decisions about the nature and speed of market interaction/commercialisation?
11. What is the role of migration in enabling household decisions on market integration/commercialisation? And how is this influenced by gender and age?

The role of social protection in enhancing livelihoods by enabling people to graduate out of poverty through better engagement with the commercialisation pathways and their spin-off effects can be studied by answering the following questions:

12. Broadly, what has to be in place to provide safety nets for those who do not benefit from commercialisation?
13. What is the role of social protection in defining the outcomes for vulnerable persons in the rural structural transformation processes?
14. What forms of social protection have the greatest potential to lead to sustainable ‘stepping up’ and ‘stepping out’?

Research approach

The research would draw primarily on data collected from surveys of households in the APRA research sites, and from additional qualitative studies of the RNFE, rural market centres and agricultural supply chains at those research sites.

1. INTRODUCTION

1. Aims and purpose

APRA's cross-cutting theme on **rural transitions, non-farm rural economies and rural-urban links** intends to address two sets of issues.

One concerns the way in which commercialisation of agriculture interacts with the development of the rural non-farm economy (RNFE), the links between rural and urban areas and, indeed, overall processes of economic growth and transformation. It is expected that growth of agriculture and better links between urban and rural areas can create profound transformations of the rural economy.

Just how this takes place depends on several factors, including the nature of agricultural growth and commercialisation (Hall et al. 2017), the nature of urbanisation (Gollin, Jedwab and Vollrath 2016, rural location (Wiggins and Proctor 2001), infrastructure (Allen et al. 2015), the scale of towns (Baker 1990), and social relations (Potts 2000).

These processes and the factors that influence them will be studied across the field sites selected by the APRA consortium, primarily in Ethiopia, Ghana, Nigeria, Malawi, Tanzania and Zimbabwe.

The other issue concerns **social protection** and the role it can play in both helping rural households to gain resilience, accumulate capitals – physical, financial, human, social, so that they can 'step up', and provide safety nets for those whose circumstances prevent them from doing so (Devereux and Sabates-Wheeler 2015).

This paper aims to:

- Review what is known about rural transitions, RNFE, rural-urban links and synergies between agriculture and social protection; and
- Consider how APRA research teams should study the issues, from the standpoint of the commercialisation of smallholder farming in Africa. Key questions will be identified and an approach to their study will be proposed.

The review that appears in Section 2 is necessarily brief, since the topics addressed are far-reaching and there is already a very large literature on them.

The research implications appear in Section 3.

2. CURRENT UNDERSTANDINGS OF THE THEME

2.1 Rural transformations and transitions

Structural transformation of the economy came back into focus in development studies in the 2010s, largely owing to concerns that the renewed and quite rapid economic growth being seen in more than a dozen African countries since the mid-to-late 1990s (IMF 2014; Radelet 2010) was taking place without economic transformation (ACET 2014). That is, instead of economic growth with widespread increases in labour productivity, and substantial movement of labour from low to higher productivity sectors, Africa's growth has come largely from higher agricultural prices on world markets, and from increased activity in mining, oil and gas – activities that typically generate relatively few jobs with limited linkages to the rest of the economy, but with the possibility of raising the value of the local currency, to the detriment of agriculture.

2.1.1 ECONOMIC TRANSFORMATION: A GENERAL PATTERN

Economic history shows that almost all high-income countries have seen structural transformations in their economies as economic output has grown. The following changes have typically been seen:

- A shift in the share of output coming from agriculture and other primary activity, and concomitant rises in those coming from manufacturing and services. Agriculture's share of gross domestic product (GDP) thus falls, although the sector continues to grow absolutely – just not as quickly as other sectors;
- A corresponding movement of labour from agriculture to manufacturing and services, leading initially to a decline in the relative share of labour employed in agriculture, and eventually to an absolute fall in the farm work force. Some of the reduction in agricultural labour stems from migration out of rural areas, some results from the next point;
- A diversification of the rural economy, as non-farm activities grow in importance. In the

process, many rural households that farm gain an increasing share of their income from non-farm activities. Correspondingly, they devote more of their labour to these activities, thereby contributing to the decline in the agricultural labour force;

- An increasing concentration of economic activity, and the labour force, in urban areas. Agglomeration brings economies: reducing costs of transport, provision of power, water and other services, providing a large pool of labour, and facilitating the spread of innovations (Henderson et al. 2001; Henderson 2013; Quigley 2008). Drawbacks of urbanisation in congestion, pollution, and high rents for prime urban locations are, for most manufacturing and services, outweighed by the benefits or urban location; and,
- A demographic transition as first the death rate falls – mainly owing to reduced mortality of young children – and then, after a lag, as the fertility rate falls. Population grows slowly at the start, since both birth and death rates are high; then growth accelerates as the death rate falls faster than the birth rate; but eventually returns to slow (or no) growth when the birth rate falls to match those of deaths. The demographic transition tends to begin and end later in rural areas compared to that in towns and cities.²
- The dependency ratio tends to fall so that the share of the population age in working age rises: a demographic dividend that applies until the population begins to age (Eastwood and Lipton 2012; Timmer 2009).

(Breisinger et al. 2011; Duarte and Restuccia 2010; Herrendorf et al. 2013; Szirmai 2012; Timmer 2009)

While general patterns can clearly be seen in the past history of the high-income countries and the more recent history of the emerging economies, the history of individual countries often shows variations in the pace and extent of these changes.

2.1.2 IMPLICATIONS FOR AGRICULTURAL AND RURAL DEVELOPMENT

Agriculture plays a remarkable and prominent role in

these transformations: remarkable because agriculture is the sector in relative decline. Paradoxically, however, the faster agricultural productivity rises, the faster transformation can take place (Timmer 2009). This is because with rising productivity, above all of labour, agriculture can still grow – thereby producing food and raw materials for the domestic market, and often earning vital export revenue – while releasing labour and capital for the (largely urban) economy of manufacturing and services.¹

This may seem a tall order, yet across much of the world labour productivity in agriculture has risen faster than that in manufacturing in recent decades (Christiaensen et al. 2011; Martin and Mitra 2001)

In part, productivity has risen because agriculture in many developing countries had such low levels of productivity, so large increases were potentially possible; but that potential has been realised by the application of improved technology, most notably the improved seed of the Green Revolution, accompanied by public investments in rural roads, power, rural education, health, clean water and the research that has helped produce technical improvements (Evenson and Gollin 2003).

The way in which agricultural labour productivity is increased has profound implications. One possibility is to mechanise farming: technically, machines have been invented to carry out most operations, other than some harvesting, such as picking coffee, some fruit and vegetables. Some agricultural machine operations benefit from scale, so that mechanisation might be accompanied by consolidation of land into larger fields and farms. The danger is that this route would create unemployment and landlessness.

Alternatives exist, however, as patterns seen in East and Southeast Asia in the last quarter century or so demonstrate. Across much of this region, machinery has been introduced to save on particularly arduous tasks, such as threshing. Land preparation that was once largely by animal draught, is now carried out by powered tillers and smaller tractors. Much of the land remains in smallholdings that, if anything, have become smaller through time (Wiggins 2018). Surprisingly large

fractions of the population still have rights to land in their natal villages (Long et al. 2013; Rigg et al. 2012). Where operated land has consolidated into larger units, it has been largely through renting and sharecropping, rather than outright transfers of land.

This latter, less socially disruptive transition, will be more likely when growth of manufacturing and services is sufficient to provide decent jobs for workers leaving agriculture. It also helps when institutions and policy foster land tenure where those who want to operate more land have the chance to rent to share-crop the land of others; while the tenure system protects the rights of all customary users so that no-one gives up their land rights without their free, prior and informed consent.

Similarly, demographic transitions will be facilitated if governments and civil society provide better health services, and female-friendly³ family planning services. As population growth slows, rural workers are likely to see real wages rise (Wiggins and Keats 2014).

2.2 The rural non-farm economy (RNFE)

2.2.1 THE RNFE DEFINED

Non-farm activities can be defined as all those other than agriculture, livestock, forestry and fishing. Non-farm is not quite the same as ‘off-farm’, another category often mentioned: the off-farm activities of a household include not only non-farm work but also may include wages from agriculture carried out on the farms of others. Strictly speaking, **remittances** derived from migration should be part of non-farm income, so long as they come from migrants still considered – as is often the case – part of the rural household. In practice, however, it is usually clearer to treat remittances as a separate category of income than to add them to earnings derived from local business and employment.

The RNFE is made up of a highly diverse set of activities in extraction of primary materials – mining, quarrying; manufacturing – processing of farm output, artisan and craft industries; and services – trading, transport, personal, and public services (Table 1).

Table 1 Rural non-farm activities, by sector

Rural non-farm activity	Typical activities seen	
Non-farm primary activity Often small-scale, but quarrying may be industrial	Mining of minerals Quarrying and production of building materials: stone, sand, gravel, bricks, clay tiles, lime, cement	Charcoal production Salt extraction Fuelwood gathering and trading Water collection
Manufacturing		

Processing of farm outputs Mostly carried out prior to shipping produce to urban markets, but some processing for local consumption – especially grain milling, butchery, oil extraction, brewing and soft drinks	Milling grains Sugar refining, jaggery Slaughtering, butchery, salting, drying (ham, bacon, sausage) Dairy processing to cream, cheese, yoghurt Coffee, tea processing Fruit and vegetable packing and canning	Brewing and distilling Soft drink making Rolling cigars and cigarettes Honey cleaning Oil crushing and extraction Fish drying, salting Timber sawing, drying Cotton ginning
Production of farm inputs	Simple tool making and repair	Animal feed making
Manufacture and repair of consumer goods for rural markets Usually artisan work carried out in small workshops	Furniture making Domestic utensils Clothes, blankets Shoes	Mats, baskets Pottery Repairs – tools, clothes, shoes, electrical, vehicle Ice blocks
Manufacture of consumer goods for domestic and export markets: <ul style="list-style-type: none"> • Utilitarian, artisan • Artistic, fine crafts 	Textiles: blankets, clothes Leatherwork Furniture Mats, baskets	Ceramics Wood carvings Decorations Tourist items
• Industrial Mainly seen in peri-urban areas, often as sub-contracting from urban businesses	Textiles and clothing Glass Metals	Plastics Electronics
Services		
Services for agriculture	Tractor and ox ploughing and other mechanical hire services	
Transport	Passenger transport	Freight haulage
Trading Mainly small-scale, owner-operated, low capital. Often comprises 20 percent or more of all village economic activity.	Wholesale trading and storage of consumer goods Retailing of consumer goods	Wholesale and retail of fertiliser, agro-chemicals, veterinary medicines
Private and personal services for rural residents Micro-scale usually	Barbers, beauty salons Healing Cooked food sale, café, tea stall, tea shop, bars, restaurants, etc. Lodgings and accommodation Transport: taxi, bus, etc. Cleaning, cooking and childminding	Construction and building repairs Photography Musicians Religious instructors, teachers, priests Pawn-broking, money-lending, deposit-taking Typing, photocopying, fax, phones
Public services for rural residents Some jobs relatively well-paid and dependable; although some may be occupied by outsiders, not resident in village.	Primary and secondary schools Health posts and centres Road maintenance	Communications (post, phones, radio) Police Extension services, usually agricultural and veterinary

Services for visitors, tourists, urban populations	Tourism: hotels, restaurants, entertainment, etc. Amenity and leisure: Maintenance of parks and other valued habitats and landscapes	Commuter or weekend homes Environmental services: watershed protection
Source: Authors' own.		

2.2.2 THE RURAL ECONOMY: EXPLAINING RURAL LOCATION OF ECONOMIC ACTIVITY

For agriculture, livestock, forestry and fishing – from here on ‘agriculture’ covers all these activities – it is clear why they can be found in rural areas. They are tied to land, soil, climate and water. Not so for most manufacturing and services: most of these could be located in urban centres. Indeed, the economic benefits and cost savings from agglomeration explain why such a large share of the non-agricultural economy locates in towns and cities (Henderson et al. 2001; Krugman

some urban-based industries, such as textiles, have thus supplied raw materials to rural artisans for manufacture – the ‘putting out’ system (Box 1). Costs of organisation and transport to and from the rural areas have been compensated by cheaper labour.

Four, the value of some crafts and souvenirs depends on their being produced in a particular place, perhaps using local raw materials, and embodying some craft tradition.⁵ In Africa, examples may include the work of the very best wood carvers and stone masons.

Box 1 The ‘putting out’ system

Sometimes known as ‘domestic’ systems, urban agents take raw materials to rural homes and workshops for processing, then later collect the finished products.

Commonly used for English textiles before the nineteenth century, when spinning and weaving were not yet mechanised, it was also seen in Japan in the early phases of industrialisation, in Taiwan from the 1890s onwards, and in China more recently (Grabowski 1995).

Modern examples include electronics workshops in rural Taiwan (Otsuka and Reardon 1998; Otsuka 2007), household silk spinning in Thailand (Haggblade 2007), and making artificial fruit and flowers in northern Thailand (Rigg forthcoming, 2019).

Few examples, it seems, can be found of this in contemporary Africa.

1993).⁴

But some manufacturing and services can be found in rural areas, owing to four factors. One, some activities need to locate close to their rural customers. Rural services such as schools, shops, cafes, repair workshops and so on are examples. Given the daily or weekly use of services, customers are not prepared to travel far from home.

Two, some manufacturing needs to locate close to raw materials that originate in rural areas. Agricultural processing plants may need to be close to fields, forests and fish wharves, either to be able to process perishable produce before it goes bad, or simply to save on bulk in transport.

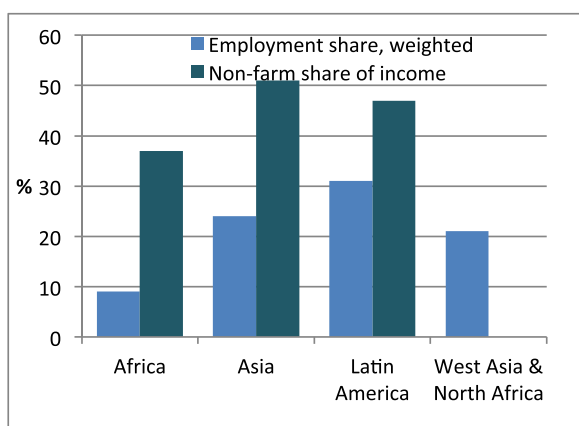
Three, much of agriculture does not provide a full-time job year-round. During slack seasons farm households may have time to carry out other activities, and be prepared to work for low returns or low pay. Historically

Hence most RNFE activity is linked to agriculture, either directly in production links – input supply, processing, transport and storage – or indirectly through the consumption demands for locally-produced goods and services by farmers with incomes to spend. Relatively few RNFE enterprises are independent of agriculture.

2.2.3 FEATURES AND TRENDS IN THE RNFE

The non-farm share of rural activity usually rises with economic growth. Most surveys show non-farm activities to increase their share of the rural economy through time, whether in terms of jobs or contributions to rural incomes (Figure A1, Annexe A).

Figure 1 Shares of rural employment and incomes from non farm sources, 1980s to 2001



Sources: Haggblade et al. (2007) Tables 1.1 and 1.2, drawing on multiple sources and taking simple averages of reported statistics. No data for non-farm share of income for West Asia and North Africa. ⁶

Most of the RNFE is made up of services, rather than manufacturing, even if the range of such services is broad – everything from trading and retailing, to tea shops, repairs, and schools and health posts. Services typically make up 50–75 percent ⁷ of the value of rural output, with trading and transport prominent, rather than manufacturing. In some instances, incomes from jobs in public services can be important: in the late 1990s this constituted 45 percent of rural non-farm incomes in rural Egypt, about 24 percent in rural Pakistan, and nearly 20 percent in rural India (Adams and He 1999; Adams 2002; Fisher, Mahajan and Singha 1997).⁸

The dominance of services can increase with economic growth and closer rural–urban links, because when urban factories – or importers – can readily sell their products to rural populations, some local artisan manufacturing may not be able to compete (Haggblade et al. 2007). For example, local artisan making of baskets, pottery, and roof thatching are vulnerable to displacement by cheap plastic pails, metal pots, and corrugated roofing. Surveys show that rural manufacturing employment typically shrinks through time, while overall employment in non-farm activities grows – at around 1.2 percent a year (Haggblade et al. 2007, Table 4.4).

Non-farm enterprises are heterogeneous not only by activity, but also by their scale and productivity. Many rural businesses use little capital and are labour-intensive. They typically operate at micro-scale, with one or two workers. They may be seasonal as well, taking place in the slack seasons for farming. Their

labour productivity is low, and returns and earnings are correspondingly meagre, but they offer jobs to unskilled rural labour.

Larger, and more capital-intensive operations can be found as well – for example, sugar mills and other plants processing farm produce. Higher productivity enterprises, however, often require capital, formal skills and qualifications that debar many would-be rural workers.

Despite the numerical dominance of petty enterprises with low labour productivity, compared to agriculture on average returns to labour in non-farm activity may well be higher. The share of the RNFE in rural employment is much lower – as little as half – as the share of value of output (Figure 1), indicating that labour productivity on average is far higher in the RNFE.

Four factors may explain this. One is that differences may be exaggerated because some surveys under-estimate labour spent on non-farm activities, since they report only main occupations, leaving out secondary and seasonal activities. In rural Madagascar in 2005, for example, only 11 percent of households had a first job in non-farm activity, but 29 percent had a second job in the RNFE (Stifel 2010). Another possible reason is that some rural non-farm enterprises are not quite as petty as they seem. Or it may arise because farm labour productivity is exceptionally low. Finally, it could be that average labour productivity in the RNFE is considerably lifted by the few capitalised rural enterprises.

Linkages to agriculture can be powerful drivers of RNFE growth. Agriculture creates direct links in production from its demands in production both upstream and downstream of farms. Farming requires inputs and services such as seeds, fertiliser, credit, and farm machinery to grow crops and subsequently processing, storage and transport of produce. While some inputs may be provided from distant towns and cities, there are local jobs in their distribution. Artisans and workshops to repair farm machinery need to be locally based: for example, in Bangladesh in the early 2000s, 160,000 mechanics were employed to maintain the pumps on around 760,000 tube-wells (Mandal 2002).

Links also arise in consumption when farmers spend their earnings on locally-supplied goods and services. Smallholders in particular are more likely to spend their incomes locally than on goods shipped in from cities. Typically, they demand housing improvements, clothing,

schooling, health services, prepared foods, visits to town, cinema and tea shops, all of which dramatically increase demand for rural transport.

Such links can have strong effects: where agriculture has grown robustly, the RNFE has also typically enjoyed rapid growth. Studies of multipliers suggest that each dollar of additional value added in agriculture generates US\$0.60 to US\$0.80 of additional RNFE income in Asia, and US\$0.30 to US\$0.50 in Africa and Latin America (Haggblade et al. 2007). Studies in the 2010s in southern Africa show both the potential of linkages to create non-farm activity, as well as the great variations seen across contexts; see Box 2.

Asset distribution affects the strength of such links and their outcomes. When wealth is concentrated, additional incomes are less likely to be spent locally so reducing local multipliers. A more even distribution of assets may encourage more broad-based rural non-farm growth, as in rural Taiwan from the 1940s to the 1960s (Ranis and Stewart 1993; Ho 1986; Johnston and Kilby 1975).

In Africa, Malawi provides some evidence of greater growth of the RNFE in areas of tobacco growing by smallholders, compared to similar areas where tobacco is grown on estates.

Box 2 Agriculture's links to non-farm activity: insights from Malawi, South Africa and Zimbabwe

Between 2012 and 2015, the **Space, Markets and Employment in Agricultural Development (SMEAD)** programme examined how agriculture, through its links with production and consumption, influences the local rural non-farm economy: its size and composition, the location and scale of activity, and employment. Detailed studies were carried out in Mchinji District, Malawi; Weenen in KwaZulu-Natal, South Africa; and Mazowe and Masvingo Districts of Zimbabwe.

The key link that farms generated upstream was demand for labour. With the exception of smallholders in Mchinji, most of the farms surveyed hired in significant amounts of labour from the local rural area. Two variations were clear: one was that some farm enterprises generated far more jobs than others, with vegetables requiring around 300 days of labour a year per hectare, while beef cattle herding at the other end of range needed just seven days of labour a year per hectare. Scale of operation was the other difference, most clearly seen in Weenen: for any given enterprise, small-scale operations tended to use more labour than larger-scale farms. Otherwise, upstream links were few. Some seed, fertiliser, and agro-chemicals were bought; some ploughing services hired. For larger-scale operations, as with the medium-scale commercial farms (MSCFs) in Weenen and the estates in Mchinji, inputs came from distant cities, generating little local activity. Few of the smallholdings had access to formal financial services: only the MSCF and estates had bank credit.

Downstream of the farms, processing was limited to drying tobacco in barns, some maize milling, sun-dried vegetables, and an abattoir, with most of these cases from Zimbabwe.

All told, the links in production from farming to the rest of the rural economy were quite limited. Indeed, in the case of Weenen, where the medium-scale farmers were highly capitalised and commercial, much of the business was done with enterprises located in distant cities, generating very little local non-farm activity. Consumption links were stronger. In Mchinji, Mazowe and Masvingo, farmers spending their small incomes created a demand for local grocery shops, hardware stores, and local periodic markets where clothes and other consumer goods would be sold. These were particularly active after harvests.

In Weenen, however, those with middle to high incomes tended to shop in the regional centres of Estcourt and Ladysmith, rather than in the town itself. The few shops in Weenen served the everyday needs of people on low incomes. Every month, however, pension pay-days saw an influx of informal traders peddling food and economical consumer goods. The bulk of incomes in Weenen came from state pensions, or employment in public services such as schools and police. The study estimated that transfers dwarfed the value of farm wages by ten times, and public-sector wages were twice the farm wage bill.

Smallholders tended to have more local links than larger farmers and estates: they bought required agricultural inputs from local stores, and when they sold their output, it was to local traders. Larger-scale farms tended to link directly to sellers of inputs and buyers of output in more distant centres: they cut out the middlemen.

Sources: Chirwa and Matita (2015); Neves and Hakizimana (2015); Sukume et al.(2015).

‘Existing enterprises in the smallholder burley-growing areas grew at an average annual rate of 8.8 percent from start-up, a rate that was significantly (statistically) higher than the 5.9 percent rate experienced in the control areas.

Furthermore, the percentage of rural enterprise employment growth that came from enterprise expansion rather than from new start-ups was higher in the smallholder burley areas.

Finally, the study found evidence in the smallholder burley area of a more rapid sectoral shift toward nonfarm activities with higher productivity and profits, such as food and beverage retailing.’

(Liedholm 2007: 112, reporting McPherson and Henry 1994, paragraphing added]

It also helps when settlement density is higher and road improvements reduce transport costs. Parts of rural Africa have weaker multipliers than applies in parts of Asia owing to sparse settlement and too few motorable roads (Headey et al. 2008).

Changes to diets and food systems may enhance links between agriculture and the RNFE. Urbanisation and rising incomes in Africa mean the domestic market for agricultural production is expanding rapidly. Much of the expanded demand is for perishable foods – fruit and vegetables, dairy, meat and fish – that in most cases can be produced locally. Indeed, diets of the urban middle class may become less dependent on imports than currently applies ⁹ (Reardon et al. 2015; Tschirley et al. 2015).

Farmers in Africa thus are likely to see a much increased demand for their produce which could, if supply can be expanded, provide the basis for relatively rapid agricultural growth. With that would come much additional activity in non-farm activities linked to agricultural production. Increased processing of food may offer some scope for rural manufacturing – particularly when processing reduces bulk or stabilises highly perishable produce, although it is likely that most food industry will locate in urban areas.

Better access to, and communications with, urban areas (see also Section 2.3) should also boost the RNFE. Peri-urban areas in particular have more possibilities as urban residents look to rural areas for leisure, environmental services, and for homes from which to commute. In favoured rural areas with unusual amenity or environmental attributes, possibilities for tourism and conservation arise, especially as urban incomes rise.

The development of the RNFE thus varies spatially, because the strength of these drivers and hence opportunities to develop the RNFE vary by natural potential for agriculture (soils, water), and of increasing importance, how well connected the rural area is to cities.

For example, rural areas with good access to cities can use their land in high-value farming of fruit, vegetables and dairying, with much non-farm activity derived from that in providing inputs, marketing outputs, and spending increased incomes.

Moreover, well-connected areas benefit from the urban demands described above. Industries looking for lower rent locations may choose such areas to locate. They may also sub-contract to rural workshops. Commuting to towns and cities may be an option for some rural residents. Good access is often complemented by such areas having better than average infrastructure for rural areas, with roads and power supplies. These processes have been observed for the urban centres as diverse as those of Himo, northern Tanzania, Lindi, southern Tanzania, peri-urban settlements close to Bamako and to Mopti in Mali, and Aba in southwest Nigeria (Bah et al. 2003).

On the other hand, remote areas with limited potential for agriculture may consequently also have weak non-farm activity. In some cases, their remoteness may, especially if they have attractive landscapes and natural features, be attractive to tourists; although realising that potential depends on peace and security, plus some investment in accommodation.

As cities grow and better links to them are created, the drivers of the rural non-farm economy may change. For example, in Bangladesh when in the 1990s a green revolution took place, non-farm jobs were created as a result of the increased production of rice (Hossain et al. 2003; Mandal 2002). By the 2000s, however, areas closer to the metropolitan areas had more and better-paid non-farm jobs than more distant areas with better agricultural potential (Deichmann et al. 2009). Urban links had become a stronger driver of non-farm activity than agriculture.

Interest in the non-farm part of the rural economy has risen through time (Box 3), as its share of rural output has steadily increased.

Box 3 Rising interest in the rural non-farm economy

Before the 1980s, the RNFE received relatively little attention from development specialists and policymakers. In part, that was because the sub-sector was smaller than it has subsequently become. To observers, the diverse collection of apparently petty activities could seem a relic of pre-capitalist economy, rather than a source of growth, jobs and incomes. Economic theories and models of the 1950s and 1960s tended to deal in broad sectors, such as agriculture and industry, or modern and traditional (Lewis 1954; Rostow 1960). Above all, until the Green Revolution began to accelerate agricultural growth, the question of how to do this, at a time of rapid population growth, dominated discussions of rural policy: agricultural and rural development were seen as largely one and the same thing.

Lack of attention has been compounded by the difficulties of defining and observing the RNFE. Many non-farm enterprises are small- or micro-scale, informal, difficult to observe, where the owners keep few records of their enterprises, and which are rarely systematically surveyed.

Bear in mind as well that some views of the RNFE have been rather negative, seeing many activities as petty business that only exists for want of something better to do. Saith (1992), for example, in his review of the RNFE, was concerned that much RNFE activity was petty in every sense of the term, a 'bargain basement' sector. Hymer and Resnick (1969) even predicted that links to urban areas would see the death of many, perhaps almost all, rural non-farm enterprises, because they were so unproductive compared to urban competition.

Some of the attention deficit began to be remedied in the 1990s, above all by the International Food Policy Research Institute (IFPRI) researchers who tried to identify the links from farming to the non-farm economy and estimate their size (see, for example, Delgado et al. 1998). Two things had attracted their attention, one that it was increasingly clear that substantial shares of the income of farming households were coming not from agriculture, but from non-farm pursuits – rarely less on average than 20 percent of farm household incomes, in some surveys the average share was 40 percent or more. Moreover, it seemed the volume of non-farm activity was rising through time and with overall rural development.

The other stimulus to researchers was the realisation that in the right circumstances, the non-farm economy could make a major contribution to the incomes and welfare of rural households, thereby pulling rural households out of poverty. A landmark study came from northern Tamil Nadu, India where a team from IFPRI and the Tamil Nadu Agricultural University (TNAU) re-surveyed half a dozen villages in the early 1980s to compare with the results of surveys in the same villages in the early 1970s. Both sets of surveys intended to look at the consequences of the green revolution of improved cereals seeds that had begun the late 1960s (Hazell and Ramasamy 1991). But the 1980s re-surveys revealed processes much wider than the adoption of seeds and increases in farm output: the re-surveys showed that landless labourers had more than doubled their real incomes in the decade between the two surveys, in large part because the rural non-farm economy had flowered in response to agricultural development, thereby providing many more jobs than before.

The 1990s thus saw a surge of interest in the RNFE that has been maintained ever since, notwithstanding the difficulties of studying the sector. The insights of that research were assessed at a 1998 conference, the edited and expanded papers from which came to be published in the most comprehensive report on the RNFE to date, Haggblade et al.'s (2007) *Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World*. This volume shows the potential of the RNFE: not only can the sector contribute considerably to rural development and ending rural poverty, but also it can help transform an agrarian rural economy to one that is more diversified in rural areas, and increasingly integrated with the urban economy.

2.2.4 THE POTENTIAL OF THE RNFE FOR RURAL DEVELOPMENT: DEBATE AND POLICY

Debate continues about the potential of the RNFE to contribute to rural development. While some RNFE activity may respond to the demand-pull from agricultural linkages and rural-urban connections;

some may be the result of supply-push of a growing rural force with too few work opportunities. This latter push can then result in a profusion of RNFE activity, services and micro-enterprises that use little capital and require relatively simple skills. Not only is labour productivity likely to be low in such activities, but if many feel compelled to enter these activities, the local market

can be saturated so that price competition to attract custom drives returns even lower.

A common observation is that many non-farm jobs are found in very small enterprises, operated by a single person with at most some part-time help, using little capital, low technology and often competing for business against many other similar businesses: for example, tailoring, preparing snack food at a roadside stall and selling vegetables in rural markets.

What is more, evidence from surveys in Botswana, Kenya, Malawi, Swaziland, and Zimbabwe plus the Dominican Republic (Liedholm 2007) suggests that these businesses do not often grow, capitalise or upgrade their technology.

Opinions differ sharply, however, on the interpretation of these observations. For Nagler and Naudé (2014) small-scale non-farm businesses in Africa exist largely because the formal economy has not grown and created better jobs. For them, the RNFE signals economic failure, not success: one therefore does 'not expect a significant contribution from rural non-farm entrepreneurship to employment creation and poverty reduction' (ibid.: 23).

Yet the same facts for Africa are interpreted very differently by Fox and Sohneson (2012) who see micro-enterprises within households – largely in rural areas – as not only providing better incomes than many farm jobs, but also as a source of growth, since the enterprises they studied offered better returns than in farming. Given the many youth in Africa who will be looking for jobs over the next ten years, they conclude that:

... developing a HE [household enterprise] sector is therefore not a coping strategy, it is a growth strategy. With 40–50 percent of households engaged in non-farm enterprises on average, and the share increasing in many countries, any investments which result in more household [sic] having a viable HE or higher incomes for even half of the HEs would have a substantial impact on GDP and poverty.(ibid.: 28)

Review of the RNFE in the new century have tended to see the potential of the RNFE with guarded optimism. When Ellis (2008) reviewed Haggblade et al.'s major study (2007) of the sector, he reported this optimism:

The gist of the argument is that RNFE represents a dynamic and vibrant sector, embodying the attractive qualities of small-scale, home-based, labour intensive activity, therefore offering important and growing contributions to pro-poor growth

and poverty reduction. The editors and authors see RNFE as a transitional (and transformational) sector intermediating between agricultural growth, on the one hand, and nascent urbanisation and industrialisation, on the other. For them this role is fundamental since it first broadens options for employment and income generation in rural areas, and then acts as the bridge to eventual leadership in the growth stakes by the urban sector.(ibid.: 763–64)

A similar and linked debate concerns the impact of RNFE development on poverty and inequality. People from better-off rural households often have more financial capital, skills and education, and social contacts that allows them to get better-paid non-farm jobs or to set up local businesses with good returns. Poorer households, on the other hand, have fewer assets and so only get less well rewarded informal and casual work in the RNFE, or set up very small businesses that can face stiff competition since so many others can set up rival businesses.

Evidence on this, reviewed by Lanjouw (2007), is far from conclusive. On the one hand, it can be that the greatest benefits of RNFE development accrue to those with advantages. On the other hand, thriving non-farm businesses can create more jobs for people on low incomes. Multipliers may arise from the RNFE back to farms, when those gaining their livelihoods from the RNFE demand more food from local farms – which may benefit small- and marginal-scale farmers. In addition, even if the RNFE activities undertaken by people on low incomes have low returns, these may provide a safety net, preventing them falling into destitution (ibid.).

2.2.5 POLICY FOR THE RNFE

Given the heterogeneity of the rural non-farm economy, the diversity of circumstances in which it develops, and the lack of detailed data on the sector, it is unsurprising that general propositions about processes and outcomes are often indeterminate. Which leads to policy questions, both about the policies that can stimulate growth of the RNFE, and those that make for inclusive development that favours those on low incomes.

Given the importance of linkages from agriculture, policies to stimulate agriculture will almost certainly favour non-farm activities in rural areas as well. In Tanzania, Kinda and Leoning (2010) find that the demand for RNFE from agricultural growth often applies, so that the supply side is the policy priority: 'Yet it is supply side matters that dominate: getting the roads, the finance and general business conditions for trade are what really matter'.

The ability of non-farm enterprises to respond to demand can be enhanced by a lengthy list of policies, some national, some regional and some applying directly to specific households and firms (see Table 2, broadly following the proposals of Haggblade, Mead and Meyer 2007).

Basic policies include establishing an **enabling investment climate** both nationally and in rural areas, and investing in **public goods** – physical infrastructure such as roads and power, investing in people through education, health, water and sanitation, and funding research and its dissemination – that the private sector

Table 2 Policies to stimulate the RNFE

Issues	Policies, programmes, projects	Key actors in planning and implementation
National		
Favourable rural investment climate Basic	‘Good-enough’ governance including peace and stability Macro-economic, trade and other economic policies Fostering basic economic institutions including property rights	Central government Donors, especially IFIs
Regional and district		
Rural public goods Basic, straightforward Regional and local government Rural market failures: monopoly power, high transaction costs Difficult, complicated	Public investment in: • Physical infrastructure: roads, electricity, etc. • Education, health, water, sanitation • Research, extension Development of rural financial systems Competition policy	Central government + donors Regional and local government Government Formal private enterprise NGO Informal enterprise Groups of farmers, citizens
District, village, enterprise, household issues		
Enterprise promotion Local detail Participation by poor households <i>Inclusion</i>	Provision of: • Information, co-ordination • Skills and training Fight discrimination in labour markets, land rights, credit market, etc. (Social protection)	Government Formal private enterprise NGO Central government NGO, civil society Grass-roots groups Central government NGO

Seeing policies in a hierarchy helps to make two things clear: that some policies are necessary but not sufficient; and that working higher up the hierarchy potentially gives greater effect – and often at lower cost. For example, most measures to stabilise a macro-economy cost little and require few skilled staff.¹⁰

Policies can be grouped, as shown Table 2, as basic and straightforward, difficult and complicated, those concerning local detail, and those for social inclusion.

will not provide. These are fundamental and necessary: without them, business of all kinds is hobbled.

This may seem perfectionist, but a critical insight from Asian development is that the investment climate does not have to be perfect. Most Asian economic successes of the last 20years have occurred with conditions of governance, at least initially, that fell far short of ‘good governance’ (Chang 2003; Khan 2002).

The climate for rural investment depends in large part

on national conditions, but also has its own distinctive features in rural areas where prominent issues include cattle rustling, disputes over land ownership, predatory local politicians running what amount to protection rackets, and local taxation that weighs heavily on business and especially on small enterprises (for Tanzania and Uganda, see Balihuta and Sen 2001; Ellis and Bahiigwa 2001; Ellis and Mdoe 2002). Recent reviews of rural investment climates have shown that rural enterprises face problems that most urban enterprises do not. For example, in Indonesia micro- and small enterprises in rural centres reported their main concerns as 'demand constraints, access to credit, poor roads and unreliable electricity' (World Bank 2006: x).

Given political will and funding, basic policies are relatively straightforward to carry out: the means are well known. That is not the case for **rural market failures**, above all those in **finance**. Rural businesses, and especially smaller ones, find formal financial services are either inaccessible or only available at prohibitive cost. Hence managing cash flows, getting working or investment credits, or insuring against risks prove difficult or impossible. For example, in 2014, according to Findex (Global Financial Inclusion Database, World Bank, 15 April 2015 update), although 48 percent of adults in rural areas of low- and lower-middle-income countries had accounts with formal financial institutions, only 8 percent had borrowed from them: for sub-Saharan Africa the corresponding statistics were just 24 percent and 6 percent.

Financial services, and especially credit, may not be vital for informal businesses starting up;¹¹ but for those that prosper and expand, sooner or later they will benefit considerably from such services (Agar 2011; Beck and Cull 2014).

Rural financial systems suffer from the high costs of information: finance providers need to know the character and competence of would-be borrowers, and the risks the borrowers run. To determine that for small businesses is costly, so that either banks (a) just refuse to lend to small operators, (b) ask them to prove their character and competence with much documentation, (c) demand high collateral or other guarantees, or (d) put a hefty premium on interest rates – or some combination of these.

In the past, public provision through state banks and agencies rarely overcame the underlying high costs of rural banking. Moreover, they were often politically directed to lend no matter what the risks, and often at subsidised interest rates (von Pischke et al. 1983 and

Adams et al. 1984 – drawing on evidence from across the developing world including, for example, Brazil and Costa Rica, Sudan, India and Thailand). As bad debts rose and costs outran earnings, many were closed in the 1980s and 1990s.

Since then many approaches have been tried to build rural financial systems, including: linking informal savings and credit groups to banks; encouraging banks, through incentives or legislation, to open rural branches; setting up micro-finance agencies with the specific purpose of serving poor people; introducing micro-insurance and index-linked insurance; and tying credit and other services to transactions in value chains between formal firms and their smallholder suppliers. All have had their successes, but none provide blueprints that are readily transferable. For example, attempts to replicate the much-admired Grameen Bank outside of Bangladesh have needed to adapt principles to local circumstances, rather than reproduce the model as blueprint (Hulme 1990). Effective finance needs adaptation to local circumstances. Learning is critical: promising approaches have to be tried, monitored, and adjusted as lessons become clear. The way to improved rural finance in most low-income countries remains a work in progress (Meyer 2015).

In addition, at district level and below there may be scope for fostering enterprises through **local economic development** (LED). LED looks to create conditions to encourage investment by coordinated actions from public, voluntary and private actors at the municipal level. This might variously be through building physical infrastructure, adapting municipal regulations and setting incentives, training managers and staff, or less tangible initiatives to improve co-operation amongst businesses with similar interests. While encouraging investment and innovation, LED usually also looks to create jobs and otherwise make business inclusive by, for example, encouraging start-ups by small entrepreneurs. The starting point, as with value chains, is usually to convene a forum of stakeholders to identify opportunities and obstacles. These then become the focus of plans for action, usually with combined efforts from public and private parties (Haggblade et al. 2007; Swinburnet al. 2006).

Successful LED assumes some decentralisation of authority and funds to local governments (Bardhan 1996; Binswanger-Mkhize and McCalla 2010). In the last two decades many developing countries have decentralised to some degree, in some cases by transferring specified fractions of central revenues down to local authorities for them to allocate as they see fit. Decentralisation is rarely smooth (Manor 1999. Working

out precise modalities and helping local authorities become effective and efficient takes time and patience. But the advantages compared to over-centralised government that ignores local circumstances usually justify the effort.

Finally, to make the RNFE socially inclusive, the disadvantages and discrimination often experienced by vulnerable people on low incomes have to be addressed. This will come partly through attention to the basic policies, mitigating rural market failures that hurt poor people more than others; and partly through more specific correctives such as education and training, and measures to combat outright discrimination – measures that go well beyond the scope of this paper.

Trade-offs may apply between objectives of inclusion and stimulating economic activity: disadvantaged, poor and vulnerable people may need more support than others. Indeed, it would be wrong to assume that most poor people are embryonic entrepreneurs who need little more than microcredit to build successful businesses (Rogaly 1996; Matin et al. 2002).¹² Some may be. But for others, a more promising route out of poverty lies in working for a business run by others who are not poor.

A final reflection on policy to stimulate the RNFE: many policies, and certainly most public investment, overlap, serving both agriculture and non-farm activities equally well. Both sectors benefit from an enabling investment climate, from public spending on roads, power, schools, water, and health. The few things that are specific to the sectors – research and extension for agriculture, business training and services for non-farm enterprises – are comparatively low cost, when set against of physical infrastructure and investments in people.

2.3 Rural–urban links and migration

2.3.1 RURAL–URBAN LINKS

The various transformations of the overall and rural economies that typically occur with growth and development, see Section 2.1, include urbanisation. While agglomeration economies explain a good part of urbanisation, agricultural development itself can contribute to this: '[A]gricultural productivity growth and commercialisation contribute to the increasing geographic concentration of population and economic activities into urban centers' (Chapoto et al. 2014: 281).

Evidence suggests that the more developed the urban economy, the greater the benefits of urbanisation for the rural economy from demand for produce and other links (Dorosh and Thurlow 2012). Here we unpack

how urbanisation affects the rural economy and how links between the urban and rural can be mutually advantageous.

Closer links to urban areas can have three sets of likely effects on the economy and livelihoods of rural areas (Table 2.3, Satterthwaite et al., 2010; Tacoli 2003; Lange et al. 2013).

First, closer links should **stimulate existing production** in both agriculture and the rural non-farm economy. This happens through lower transport costs between towns and villages that should result in higher output prices and lower costs for manufactured inputs at the farm gate. Price changes should raise returns to farming, and thereby stimulate more production, especially through intensified use of fertiliser, agro-chemicals, tools and machinery. Better flows of information on technical innovations and market opportunities should reinforce this. Closer links to cities should also make it easier to access some public programmes and services, including training schemes and investment grants.

Not all rural enterprises benefit from closer links to cities: reduced cost of industrial goods often signals the end of craft and artisan manufacturing in rural areas. The consolation here is that such manufacturing provides only a small share of employment in the rural economy, and sometimes not well-paid work either.

Second, lower transport costs not only serve to stimulate agricultural production, but serve also **to increase rural welfare**. This happens indirectly through increased production and incomes, but also by bringing down the cost of consumer goods in rural areas, allowing people more consumption for the same income. Lower transport costs, both financially and in terms of time, allow rural people better access to services predominantly found in urban areas, such as schools and hospitals.

Agriculture may have to adapt, however, to higher wages when off-farm opportunities exist. Spatial differences in farm intensification reported in Ethiopia (Tamru et al. 2017) and Mali (Haggblade et al. 2017) are a critical factor influencing rural–urban transformation via the opportunity cost of rural labour, which increases with proximity to towns. That is, labour-saving technologies become more profitable for farmers in locations close to urban areas. In Mali, Haggblade et al. (2017) found 75 percent herbicide adoption on farms within 50km of Bamako and falling to 25 percent in remote rural areas, where wage rates were lower and herbicide prices higher. In Ethiopia, Tamru et al. (2017) find considerable positive labour productivity effects of herbicide use of

between 9 percent and 18 percent. They show that the adoption of herbicides is strongly related to proximity to urban centres, access to all-weather roads, and levels of local rural wages.

Third, closer proximity to cities and towns can influence the type and intensity of rural activity. It can also create **new opportunities for rural livelihoods**, especially when urban economies grow and residents see their incomes rise. As cities grow, rural residents increasingly demand better services in rural areas as well as looking to urban areas to provide leisure and business opportunities. For some manufacturing plants, the advantages of agglomeration do not depend on being in the centre of cities, so to escape congestion and high rents they locate in the peri-urban periphery looking for land and services. New opportunities for rural households and businesses thus arise: renting out land, constructing homes and factories, providing hotels and restaurants for tourists and day trippers, and protecting environmental assets.

Not all interactions are beneficial. Migration to towns may result in unemployment when the expected jobs do not materialise. Social capital may be lost as families fragment with migration. Rapid migration to urban areas may result in slum settlements. Some municipalities and industries may see adjacent rural areas as places to dispose of waste, with the danger of polluting land and water.

Demand for land in peri-urban areas can be fierce. Rights to land can be confused when rural land governed by longstanding traditional authorities comes within an expanded municipal boundary so that town councils also believe that they have jurisdiction. Those looking for a housing plot may find themselves buying land from a rural user, registering the land with the council and paying taxes, as well as also paying for recognition by a traditional rural leader (Lange et al. 2013).

Table 3 Effects of closer links to urban areas on rural areas

Immediate effect of closer rural–urban links	Likely consequences (negatives in italics)
Stimulus to existing production: agriculture and the rural non-farm economy	
Reduced transport costs between urban and rural areas result in:	Incentives for agricultural production, with intensification through increased use of purchased inputs
(a) Increased effective demand for agricultural output, since farm-gate prices will rise with reduced transport costs	Competition for land
(b) Reduced costs of agricultural inputs – manufactured fertiliser, chemicals, machinery – at the farm gate with lower transport costs	
c) Increased flows of information between urban and rural areas about markets and ruling prices, technical innovations, and about alternative opportunities in the urban economy	Closer focus of farms and other rural enterprises on urban markets Technical improvement as news of innovations travels more easily More migration from country to town
(d) Reduced costs of consumer goods produced in urban areas or imported, owing to lower transport costs from urban to rural areas	Competition from urban manufacturers eliminates rural cottage industries
(e) Better access to productive services usually found only in towns, such as financial services	Lower costs of financial services for both farms and rural non-farm businesses
(f) Spatial variations in wage rates between rural and urban. Close proximity to urban areas means that opportunity cost of rural labour increases	Increases agricultural incentives to substitute farm inputs (herbicides), equipment (mechanical weeders) and services (threshing machines) for farm labour, thus raising the productivity of farm labour
Increased rural welfare	

Reduced costs of consumer goods produced in urban areas or imported	Higher welfare for rural households
Better access to services that are either only usually found in towns and cities or where quality and variety are much greater in urban areas – hospitals and higher education for example	Higher welfare for rural households
New opportunities for rural livelihoods – and threats	
Reduced travel time to cities	Commuting from villages in peri-urban areas to towns
Increased demand for rural services from growing cities, including: <ul style="list-style-type: none"> • leisure and recreation, • environmental services such as water supply, • housing for commuters, • industrial space for decentralised factories, and • waste disposal. 	New opportunities for rural enterprise in leisure (catering, accommodation, activities, events), construction, etc. Rising land values in peri-urban areas Land disputes in peri-urban areas Rural resources appropriated largely for the benefit of city dwellers with inadequate compensation for existing rural users – for example, game, forest and environmental reserves

2.3.2 LOCATION SPECIFICITY

While the effects described have been observed, for any specific region urban–rural relations may be moderated by additional factors, including: rural location (Wiggins and Proctor 2001), infrastructure (Allen et al. 2015), the scale of towns (Baker 1990), the extent and form of migration and social relations (Potts 2000). Furthermore, how rural areas and agriculture relate to towns and cities depends on the nature of urbanisation, and what sort of employment is generated (Gollin et al. 2016).

Examination of the functions of cities with significant rural surroundings shows that it is far from automatic that the urban centre fulfils all the urban–rural links expected. A study by Adhikari (2002) of the rural interaction experience of Pokhara, Nepal showed that while business in Pokhara had expanded substantially since the 1960s, the links with the hinterland were not well developed. This is explained by (i) the rural economy of the hinterland having been undercut by the increasing availability of the imports (including labour); (ii) the investment of rural savings in towns and consumption goods rather than in villages; (iii) the overwhelming dependence of Pokhara on external income flows – remittances, pensions from India and Britain, and from tourism.

Also peri-urbanisation and the resultant emerging rural–urban mix of activities in an era of corridor developments/major highways all over the continent is opening many more opportunities to both sub-sectors. The hierarchical development of urban centres with varying sizes and levels of economic activity redefines

the variety of movements with different implications for rural livelihoods. Closer rural–urban links have the propensity to stimulate both agriculture and the rural non-farm economy, especially where the growth of primate cities stalls while intermediate towns rise.

2.3.3 EFFECTS ON RURAL HOUSEHOLDS ¹³

Linkages between the rural and urban spaces become consolidated as rural families diversify their livelihoods and employment possibilities, sometimes uprooting and migrating en masse to small towns, but more often than not, taking a stepwise approach whereby one or two family members try their luck in small towns in the RNFE, all the time keeping a foot in the farm economy (Ellis 1998; Fry 2011). If the rural farm is located close to a growing small town or city it can be common for workers and/or their families to live multi-sited lives – commuting daily for work in the non-farm economy as well as working on the farm at weekends or at specific times such as planting or harvesting. Alternatively, others may re-locate their families to the towns and cities, but retain a home farm plot that they maintain at weekends to meet subsistence needs.

Sometimes, in urban and peri-urban centres, agriculture constitutes a risk-coping strategy against the uncertainty of job markets and a complement of low non-farm incomes (Lerner et al. 2013; Satterthwaite et al. 2010). These types of strategies, and many more, characterise early stages of rural–urban transformations. As rural economies transform, links to growing urban areas become more important, allowing non-farm income earning opportunities, through various forms of

migration (de Brauw et al. 2013).

Some households are able to engage with agricultural commercialisation processes, while others successfully integrate into the RNFE either through employment opportunities or small business development. However, a significant minority of households are not able to take advantage of the transformation of the rural economy (anywhere from 20 percent to 40 percent), being unable to find employment possibilities or even to make a living by staying on the farm. For these households, livelihood diversification is about survival and 'hanging in' rather than stepping up or out of agriculture (Dorward et al. 2006; Tacoli 2003; Yaro 2006).

In summary, by and large, urbanisation can benefit rural areas. The question then is how best to promote positive interactions. In APRA we will investigate rural transitions across the field sites, examining the linkage effects (Haggblade et al. 1989, 2007; Delgado et al. 1998) between farm and non-farm activities (Wiggins and Hazell 2011; Lanjouw and Feder 2001), and the implications for inclusive growth of different pathways of commercialisation.

2.3.4 MIGRATION ¹⁴

A question of interest for our research is whether migration is an important enabler for household decisions about whether to engage with local markets? Economic theories of migration stress the decisions made by individuals and households to relocate. The famous Harris and Todaro (1970) model predicts that individuals from rural areas will move to urban areas as long as the expected wage in the town or city is greater than the actual rural wage. The expected urban wage depends on the wage differential, the amount of unemployment in the urban sector and the individual's risk behaviour. Given the element of chance in finding a well-paid formal job, the model explains why people move to cities in the hope of getting such a job, only to add to the ranks of those formally unemployed who survive by informal and illegal means. The model has thus been influential in framing rural-urban migration as a problem to be discouraged (Lall et al. 2006).

Subsequently, more positive views of migration have been proposed. While it may be individuals who move, the decision is seen as one taken by the household, motivated by one or more of the following considerations: to earn more; to reduce risk by diversifying the portfolio of incomes – especially for households that otherwise would depend on rain-fed farming; and to build up capital and circumvent the typical lack of formal credit in rural areas

(Stark and Bloom 1985). In this scenario the migration raises productivity, overcomes market failures, benefits those on low incomes and reduces risk.

There are multiple other explanations for migration (see de Haas 2014 for network theories); however, for the purposes of this paper it is adequate to acknowledge the complexity of the migration decision and how this relates to rural transitions, and the development of non-farm rural economies and urban spaces. Equally important as the economic determinants of migration are political and cultural factors. For instance, custom may give residents access to housing plots, farm land, water, grazing and forests, rights that may be lost if all members of the household move out – point that has long been evident in parts of Southern Africa (see Low 1986).

Furthermore, administrative controls on movement through residence permits, for instance, might mean that migrants move with lesser rights to urban services and less employment protection than those formally allowed to live in cities. More commonly, if less newsworthy, migrants are not afforded the basic rights of their neighbours, and may be marginalised or discriminated against in their new or temporary homes. Internal Indian migrants have not been entitled to social services or development scheme benefits in the places to which they migrated (see example in Rogaly et al. 2001). The hukou or household registration system in China has, for a generation, marginalised rural migrant workers and their families in urban areas. It has prevented them accessing education and health care in cities and left them open to being paid less and treated worse than urban residents (Chan 2010). Fortunately, the system has recently been relaxed (Branigan 2014).

Research in Kagera, northwest Tanzania tracked migrants over an 18-year period from the early 1990s. Moving out of the home village contributed enormously to improved living standards across the sample: so much so that by the time of a 2004 re-survey, it was observed:

Had we not tracked and interviewed people who moved out of the community... we would have seriously underestimated the extent to which poverty has gone down over the past 13 years in the Kagera Region; we would have reported poverty reduction at about half of its true value. (Beegle et al. 2008)

By 2010, poverty had fallen for all groups in the panel, but especially for those that moved (Figure 2).

Figure 2 Change in poverty incidence in Kagera panel households: early 1990s to 2010



Source: Compiled from data in Table 2 in Christiaensen et al. (2013).

The largest relative reduction in poverty came by moving from farm to city. Given, however, the sheer numbers of people moving from farm to ‘middle’ (i.e. secondary towns), most households escaping poverty had moved from farm to secondary cities. Overall, half of the households escaping poverty moved out of agriculture to the rural non-farm economy or to secondary towns, and one in seven by migrating to a large city. One in three households exited poverty while continuing as farmers (Christaensen et al. 2013).

2.3.5 EFFECTS OF MIGRATION ON AGRICULTURE

Migration in the context of urbanisation can be a major source of capital for investment in rural activities as remittances, both tangible and intangible, flow to bolster the mix of commercial agriculture and the RNFE. Remittances enable rural dwellers to overcome capital limits; allow more on-farm investment; improve the social and economic wellbeing of households; curb intergenerational poverty through education and health of the youth; and transmit valuable skills through returning migrants and diaspora.

The relationship between remittances and improvement in farm income via commercialisation depends to a large extent on the opportunity to get decent returns in farming. Migration can help households increase their portfolio of livelihoods and hence reduce risk and enhance welfare. Although sending households may lose labour, the increased earnings and remittances can allow compensating investments on farms and rural businesses, including hiring in of extra labour.

The outcomes for rural livelihoods of migration – and of non-farm work – are varied across different households, depending on idiosyncratic and general socioeconomic structures. For example, in Kwaara State, Nigeria, off-farm work was associated with increased use of purchased inputs on the farm, higher production and slightly improved technical efficiency (Babatunde 2012). In Uganda, from 2005 to 2010, off-farm work correlated with more adoption of hybrid maize seed, more use of purchased inputs, although less technical efficiency (Diirro 2009). In Senegal, smallholder households with earnings from work on larger, agro-export farms use more inputs, achieved higher production. Off-farm earnings were also invested in buying additional land to farm (Maertens 2009).

On the other hand, in Gurage, Ethiopia, off-farm work led to less farm labour, with less production and lower land productivity. In Kenya, panel data from 1997 to 2005 showed that off-farm work competed with intensified maize in higher potential areas, leading to less use of fertiliser on maize and vegetables (Mathenge et al. 2013, 2015).

Some farms commercialise in the areas with high potential agricultural productivity, and others, particularly in lower potential areas, orient their income-earning strategies toward off-farm earnings and maize to meet subsistence needs only.

2.4 SOCIAL PROTECTION, AGRICULTURE AND RNFE SYNERGIES

While a number of research and policy documents have been produced to investigate the linkages and complementarities between agriculture, rural livelihoods and social protection (see Dorward et al 2006; Sabates-Wheeler et al. 2007; Gavrilovic et al. 2016, limited work has looked at the relationship between social protection, rural–urban transitions and the RNFE.

Theoretically, social protection has the potential to play a critical role in structural transformation, as rural households embark on a range of livelihood choices and pathways. The risk under-writing function and liquidity that social protection can provide means that some poor smallholders might be able to harness opportunities for ‘stepping up’ into commercially sustainable agriculture, or to ‘step out’ of agriculture altogether into productive non-farm work. Both types of households will likely benefit from cash plus and graduation model programmes comprising cash and asset transfers with asset packages, microcredit and training. Other households, however, may have no choice but to ‘hang in’ the rural sector, as agriculture commercialises around them.

As pointed out by Gavrilovic et al. (2016), when embedded within a broader rural development framework, stronger coherence between agriculture and social protection interventions can improve the welfare of poor smallholders. This happens through improving risk management capacities, by facilitating productive inclusion, and by increasing agricultural productivity – all of which enable rural-based families to move gradually out of poverty and hunger (Tirivayi et al. 2016). In addition to protecting the rural poor against negative livelihood outcomes, safety nets and cash transfers can alleviate liquidity constraints for smallholders, create demand for farm products, and create multiplier effects throughout the local economy. In many ways, social protection interventions can mediate the relationship between the rural and the urban as they open up space for poor households to diversify their livelihoods.

Evaluation findings from conditional and unconditional cash transfer programmes (Coady et al. 2004) show that they not only prevent damaging coping strategies, such as asset sales, indebtedness, and removing children from school; but can also relax liquidity constraints for smallholder farmers and allow them to purchase and accumulate productive assets. Cash transfers can encourage productive and income-generating potential by boosting household investments in farming and non-farm micro-enterprises.

The scale and distributional impacts of economic multipliers will depend on a number of factors, including the labour availability in the beneficiary households, and the openness and structure of the local economy, its linkages with urban centres and other large markets (Taylor and Yúnez-Naude 2002). The expenditure patterns of different groups receiving cash transfers (in terms of their expenditures on tradable and non-tradable goods and services) will also influence any local economy spillover effects.

The combination of a social protection instrument with an agricultural intervention can be particularly effective. For example, impact evaluations have shown that in Ethiopia beneficiaries with access to both the Productive Safety Net Programme (PSNP), a cash transfer and public works programme, and the Household Asset Building Programme (HABP), which provides access to credit, inputs and agricultural extension, had the largest improvements in food security, better agricultural technologies and participation in non-farm business enterprises, when compared to beneficiaries of either PSNP alone or PSNP with higher benefit levels (Gilligan et al. 2009, cited in Tirivayi et al. 2013).¹⁵

Furthermore, Dorward et al. (2006) argue that

agricultural growth and social protection can stimulate the development of local non-farm economies. They estimate that each additional dollar added to agriculture generates another 30–80 cents in second-round income gains elsewhere in the economy. Devereux et al. (2008) make a similar point, arguing that increases in smallholder income, through social protection for instance, can lead to increased demand for non-agricultural products and services, thus stimulating production across economic sectors.

Gavrilovic et al. in a recent FAO paper, make the case that

social transfers in combination with labour market policies and microenterprise development schemes can also facilitate a transition to a more diversified economy, thereby enabling those seeking an exit from farming to develop viable non-farm livelihoods, and protecting the welfare of those who cannot succeed as commercial farmers by smoothing their withdrawal from agriculture. (2016: 16)

For instance, an evaluation of the Atención a Crisis programme in Nicaragua found that households eligible for its productive investment grant are 13 percent more likely than ineligible households to engage in non-agricultural self-employment. Furthermore,

the grant led to significant increases in both the processing of food products – such as small bakeries or the sale of different types of cheese – and small-scale commercial activities – such as corner stores or roaming cloth sellers. These increases are significantly larger than those resulting from training and the programme's basic package. (ibid.: 16)

The results suggest that the combination of agricultural and social protection interventions helped both to diversify households' income portfolios as well as change the way they interacted with the rural non-farm economy (Macours et al. 2012, cited in Soares et al. 2015). Another example of this effect comes from Blattman (2014, cited in Soares et al. 2015), where integrated micro-enterprise development support provided to cash transfer beneficiaries in Northern Uganda resulted in a doubling in the proportion of people with non-farm businesses: from 39 percent to 80 percent.

These findings, among other things, show that social grants influence the choices people make about where they allocate their labour. Gavrilovic et al. (2016) report that impact evaluations of government-run cash transfer programmes in sub-Saharan Africa¹⁶ show that

the programmes caused adults to move away from casual agricultural wage labour, generally considered a job of last resort, to on-farm activities and non-farm businesses and/or hired labour to work on their farms. This was seen as a positive change (FAO 2014; Barca et al. 2015).

There are, of course, those households and groups that drop out entirely from the productive side of the agricultural sector: either because they had too little income, too few physical and human assets to engage, or because they were deliberately excluded from opportunities. These households may be able to rely on coping strategies in the short run, but more often than not social protection from the state or non-governmental organisations (NGOs) and other donors is needed to protect the most vulnerable, and where possible provide support to a range of possible livelihood pathways within and out of agriculture.

Useful roles for social protection in supporting agricultural development, and vice versa, revolve around their contributions to poor people's 'hanging in', 'stepping up' and 'stepping out' strategies (Dorward et al. 2006). Early social protection welfare instruments focused on supporting 'hanging-in' strategies. These are still important but insurance and resilience-based instruments now aim to help people escape from poverty traps so that they can 'step up' or 'step out', taking risks to engage in more productive activities. Agricultural policies can provide services supporting the same process: movement from semi-subsistence to intensified commercial agricultural production, and/or increased non-farm employment; and for many, eventually, a beneficial exit from agriculture.

When thinking about linkages between agricultural and social protection policies, the challenge facing policymakers lies in determining how harmonised policy packages could more effectively facilitate transformation, rather than promote policies in 'isolation'. As discussed by Dorward et al. (2006) and Gavrilovic et al. (2016), a continuum of strategically aligned and sequenced agricultural and social protection interventions can be established in order to support a range of livelihood transitions adopted by rural households, including:

- Interventions to integrate 'viable' smallholders into modern markets and assist them in commercialisation;
- Interventions for people who chose to remain subsistence farmers, to improve the resilience of their farming systems to climate change and other shocks as a means of ensuring sustainable food production;

- Social protection measures to protect the wellbeing of households with limited abilities to engage in more commercially oriented agriculture;
- Social protection and agricultural interventions to support households in engaging in more commercially oriented agriculture productive assets and skills in order to adjust and succeed commercially in agriculture; and,
- Cash and food-based transfers as well as non-farm-based livelihood promotion and employment measures to support households choosing to exit from agriculture.

3. RESEARCH AGENDA FOR APRA

This section sets out the questions that may be addressed on this theme by APRA research and how they may be studied.

3.1 Questions

A broader aim for APRA is to investigate rural transitions across the field sites, examining the linkage effects and the implications for inclusive growth of different pathways of commercialisation. Central to the research agenda is understanding the way in which commercialisation of agriculture interacts with the development of the rural non-farm economy, the links between rural and urban areas and, indeed, overall processes of economic growth and transformation. How does the growth of agriculture and better links between urban and rural areas create transformations of the rural economy? Four areas of investigation are key to delivering this promise, as outlined below.

1. Providing a rich background and context is a crucial entry point for making the analysis required in this research. Questions for understanding rural transformations and transitions could include:
 - a) What is the overall context of economic transformation?
 - b) What are the drivers of rural transformation?
 - c) What are the consequences of rural transformation for the livelihoods of rural people?
 - d) What are the factors that constrain certain households/groups from productively participating in rural transformation?
2. Agriculture's growth is central to the growth of the RNFE. The following questions are important:
 - a) What kind of growth of agriculture and its supply chains tend most to stimulate the RNFE?
 - b) What are the prospects for creating local jobs that can be taken up by low-formally skilled ('unskilled') farm household members?
 - c) What policies, public investments, collective

actions, etc. best assist the development of the RNFE?

- d) What is the nature of RNFE interactions with agriculture?

3 Agricultural transformation is hinged on the rural–urban linkages and migration processes. Questions that APRA could explore under this theme include:

- a) What is the relationship between different agricultural commercialisation pathways and small-town development? To what extent do rates of intensification and commercialisation differ spatially?
- b) How does the rural–urban spatial continuum influence household decisions about the nature and speed of market interaction/commercialisation?
- c) What is the role of migration in enabling household decisions on market integration/commercialisation? And how is this influenced by gender and age?

4. The role of social protection in enhancing livelihoods by enabling people to graduate out of poverty through better engagement with the commercialisation pathways and their spin-off effects can be studied by answering the following questions:

- a) Broadly, what has to be in place to provide safety nets for those who do not benefit from commercialisation?
- b) What is the role of social protection in defining the outcomes for vulnerable persons in the rural structural transformation processes?
- c) What forms of social protection have the greatest potential to lead to sustainable 'stepping up' and 'stepping out'?

3.2 Approach to research

The broader approach to researching our critical questions requires carefully designed cross-country comparative analyses that link micro-level quantitative

and qualitative studies with wider historical analyses and political economy assessments. Building on the Land and Agricultural Commercialisation in Africa (LACA) study (Hall et al. 2017) which compared outcomes of commercialisation in different settings, it is important to understand the changing contexts and circumstances and the links between the micro-macro that defines the rural transformations and outcomes for various categories of people. A historically grounded comparative multi-method and cross-scale approach is required to provide the data requirements and understandings for fulfilling the gaps in knowledge on the nature of agricultural commercialisation and RNFE.

In-depth contextualised case studies across different sites of commercialisation typologies and socio-geographic settings are important to capture the diversity of the African settings (Dercon and Gollin 2014). Both cross-sectional and longitudinal studies are required to show current and past trends of agrarian changes and clearer transitions required to fill the gaps in the literature. A quantitative and qualitative assessment criterion will provide the complementarity, rigorous and deeper understanding of the phenomena under study in a broader perspective. Combining both perspectives should enable the understanding of micro-level decision-making, current contextual socio-geographical and policy influences and how these are located within the wider historical picture.

Context matters and it emphasises the need for careful cross-country case comparisons recognising the different conditions of agrarian change. Therefore, a careful investigation of the processes of agrarian change and transitions propelled by different pathways of agrarian commercialisations and the different policies that produce these is critical. The diversified outcomes of the different contexts, policies and processes – especially how these relate to wellbeing of different social groups – fills in an important gap in knowledge in this area (Johnston 2015; Oya 2013). The choice of countries for this study necessarily demands both similar and contrasting conditions to allow for explanations of difference and similarities.

A careful selection of research sites is required to achieve the comparative analytical approach proposed. The research sites should cover different agricultural commercialisation types involving large-, medium- and small-scale operations because the different pathways to commercialisation define different patterns of agrarian change and implications (Hall et al. 2017). Both older and emerging commercialisation zones, as well as more dynamic ('hot') and less dynamic ('cold') areas are needed to understand contemporary processes and

drivers and to enable panel and longitudinal assessment of agrarian changes and their influences on welfare.

Geography matters a lot in this selection process as it constitutes an important basis for most hypotheses on the nature of commercialisations and its impacts on different places and social groups. The recognition of variations in rural economic conditions should guide the selection process. Examples of notable elements might include agricultural dynamism, distribution of key productive assets (farmland, human capital), and spatial locations (remote vs accessible zones) (Haggblade et al. 2007; Losch et al. 2012). The selected locations should offer the most valuable insights on the priority themes identified and provide data for answering the questions outlined.

The research methods for providing the data needs include various standard and participatory techniques. Secondary sources of information provide data for analysis of trends and descriptions of trajectories and typologies. A combination of surveys, individual and household interviews, expert interviews and life histories provides the complementarity in triangulating the different data needs required. Some field observations and measurements may also be needed and can help deal with hypotheses on farm size, crops, land and labour arrangements.

This multi-pronged research agenda requires careful sampling to meet the different hypotheses with varying nuances. The sample locations ranging from regions, agro-ecological zones, settlements of different sizes, population, state interventions, market access, and remoteness are important considerations in the selection of research sites.

First, it is important to pick regions with different commercialisation pathways and agro-ecological and demographic conditions. The level of public investments plays an important role in defining the added viability and vibrancy of locations. The linkages between agriculture and the RNFE are differentiated by size and functions of settlements. A mix of locations, or an analytical framework linking a production zone with its close towns, is important. Sampling communities should take into consideration the degree of remoteness and market access, as this might be an important differentiating influence on impacts of commercialisation. And, above all, the social categories considered in surveys and interviews should be gender, age, migrant status and occupationally sensitive.

Some specific data needs for mapping rural transformations and transitions could involve measuring

rates of growth of the economy; changes in different sectors; changing context of employment across sectors; changes in demographic transitions. These are done through secondary sources of data from country and donor databases and longitudinal and repeated panel data. A checklist that details the description of public investments in the research sites helps understand macro drivers of the processes of growth. Social differentiation indicators using distribution of assets and access forms especially to land, inputs and food must be an integral part of the research instruments.

The benefits of commercialisation are not uniform and could be seen from the angle of constraints to participating including household idiosyncratic conditions, geography and broader societal conditions. The broader political economy conditions should underpin analysis of individual and household data.

The data needs for understanding agriculture's contribution to the RNFE and vice versa requires a combination of micro-level data and wider iterative deductions. Examining a few supply chains and their links to the RNFE to point to the most influential direct and indirect impacts mapping. Simple in-depth and expert interviews are effective in assessing the local economy benefits of these chains and associated activities in terms of output increase, job creation, and inclusiveness. The size of the daily wage and the dynamism of the labour market are critical outcome variables. Other drivers of the RNFE, such as public investments and interventions, and how these interact with commercialising agriculture to define the holistic economic linkages may be examined. Probing deeper into the cross-sectorial investment linkages in the light of livelihood trajectories should guide our framing, selection of participants and interview guides.

The assessment of rural–urban links and migration also require establishing linkages along the value chains and especially the processes leading to the growth of market towns. The role of rural market centres in the commercialisation process and the subsequent growth of these and the overall central place functions and contribution of towns will be examined. This will involve careful mapping of substantial linkages through the panel surveys and longitudinal surveys undertaken within APRA. Spatial coordinates will be important in tracking input use, productivity, wage rates, levels of various forms of RNFE and farm activities.

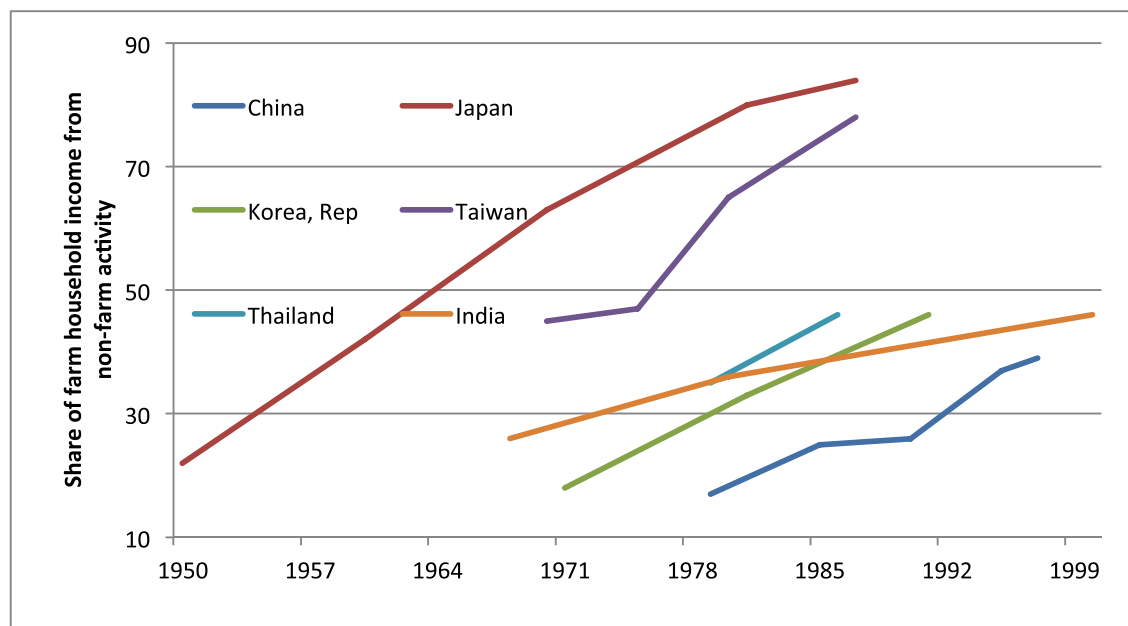
Generally, households with better access to urban areas are more likely to commercialise than those in more distant locations. Households located in peri-urban/

semi-rural areas are more likely to engage in diversified commercial activities. Migration plays a critical role in ensuring these links, in addition to migration dynamics of different socioeconomic groups. Gathering mobility and remittance data in our panels and detailed life histories is appropriate to providing the needed data.

APRA's theory of change envisages small poor farmers stepping out of poverty either within farming or RNFE. A clear understanding of how to bring about this is needed. Social protection via various safety nets may enable those who do not benefit from commercialisation to define a livelihood trajectory with stable incomes and consumption and avoiding destitution. The surveys can capture indicators on those benefiting or losing out under commercialisation, and also capture households benefiting from specific social protection interventions. The qualitative interviews will map out the nature and extent of social protection and how people and households are doing welfare and activity-wise.

ANNEXE A: ADDITIONAL CHARTS ON THE RNFE

Figure A1 Shares of farm household incomes from non-farm activities, Asia



Source: Data from Table 4.1, Haggblade et al. (2007).

India statistics are for share of rural incomes, rather than farm households alone.

ANNEXE B: LEARNING FROM ASIA. THE RNFE IN ASIA: KOREA, TAIWAN AND THAILAND ¹⁷

More insight into the development of the non-farm economy can be gained from particular countries. In Southeast and East Asia where many economies have grown rapidly, experiences of developing the RNFE have varied. Taiwan and Thailand seem to have largely succeeded, while Korea has been less successful.

In 1950 almost half of **Taiwan's** industry was rural, a share that was to increase as rural industry grew faster than urban from 1956 to 1980. The composition of rural industry, however, changed markedly, reflecting the national shift from import-substituting industrialisation in the 1950s to export industries in the 1960s. In the 1950s, rural industry was mainly processing of food and beverages, wood products, and textiles. Since 1970, the main rural industries became metals and machinery.

Yet this has not necessarily been large-scale manufacturing: on the contrary, most industry is small- and medium-scale. That has been possible because many rural plants sub-contract from urban-based export industries. Sub-contracts from the urban to the rural allow rural workshops to get access to information on markets and design. They also allow for transfers of raw materials under a putting-out system that reduces working capital requirements. Well-developed relations between rural entrepreneurs, most of them former urban employees or traders, and urban concerns have underwritten the contracts.

As rural industry has prospered, rural labour has shifted from farming to rural non-farm activities. In Taiwan from 1962 to 1980, farm incomes rose by 3.3 percent a year, but rural non-farm incomes rose by 11.7 percent a year.

Rural industry was stimulated by encouraging former landlords whose land had been transferred in the early 1950s to their tenants to invest in rural business. The landlords had been compensated in long-term bonds, the value of which however could be turned into liquid capital if they were prepared to add funds and invest locally. In addition, rural electrification and equal tariffs for energy across the country helped rural entrepreneurs; as did a road network and well distributed urban centres.

In contrast, **South Korean** industry tended to locate in large and intermediate cities, where large-scale plants were established using high technology. Government policy until the 1990s favoured large conglomerates (chaebols), and encouraged concentration of their factories in agglomerations around Seoul and Busan. Growth of rural industry, in comparison, was sluggish. Not only was there little public support to rural location, but also labour was not much cheaper in rural areas: in 1981 rural wages were more than 90 percent of urban pay rates.

Thailand has seen its rural non-farm economy grow to provide around half of all rural jobs. Some are linked to thriving agriculture, such as rice mills, sugar refineries, and workshops manufacturing agricultural machinery. But a different pattern has been seen in the less agriculturally prosperous Northeast, where a growing population has tended to outstrip increases in agricultural output. With households struggling to make a living from their farms, many have migrated out to find work in other parts of the country. Most of these migrants return when they have amassed funds. At one point these returning migrants, using the skills they had learned on their travels, set up workshops in their villages for cutting gems, weaving silk and making artificial flowers, most being for export. It seems that subsequently these have declined, but jobs have been created in a more diverse rural non-farm economy.

Thailand has promoted the rural non-farm sector since the early 1970s through measures such as microcredit and savings schemes, support to small and medium enterprises, and promotion of one-village-one-product initiatives. Some NGOs, such as the Population and Community Development Association (PDA), have actively attracted investors to rural locations. The PDA has, for example, helped create an industrial park in the Northeast for factories producing garments and footwear mainly employing young women. It is not so much the direct jobs in the factories that count, but the ancillary activity that accompanies them, in transport (including servicing the ubiquitous motorbikes), providing lunches to factory workers, and in shops and services where workers spend their wages.

Not all NGO efforts have worked. The Chakkarat/Jakkarat Development Foundation encourages agriculture and rural crafts; however, some ideas have failed. For instance, village crafts have been hit when the price of finished silk products fell, gem cutters left the area, and hand processing of cassava, cashew and sesame could not compete with industrial units. Overall, non-farm rural jobs in Thailand tend to be more productive than those on farms, but less than those in urban areas. Referring to 1999:

‘... 25 percent of agricultural workers create about 8 percent of GDP, 25 percent of rural workers (in non-agriculture) create about 20 percent of GDP, and 50 percent of urban workers create about 73 percent of the GDP... These facts are reflected in earnings as well. Workers in urban areas earn more than those in non-agricultural rural jobs, and farm workers earn the least.’ (DAN 2003)

So what may be learned from these experiences?

- If industry is to set up in rural areas to take advantage of lower labour (and land) costs, then drawbacks need to be minimised. Above all, roads have to be in good condition to cut transport costs, and power supplies need to be on hand and reliable.
- Export industry is more likely to locate rurally than industry that serves domestic markets. The latter need to keep down transport costs and can be more responsive to local demand when located where consumers are concentrated, that is in cities. For exporting industries, the clients are remote no matter where the plants are located: co-ordination with customers, design and marketing can be done from an urban base, while the production of components and their assembly can be sub-contracted to rural plants.
- Experienced and skilled factory workers returning to the countryside where they were raised are well placed to set up and work in rural manufacturing. Not only do they have the know-how to manage rural workshops, but they may also have the urban contacts to form trusting, working relations for sub-contracting.
- All this presupposes, of course, that manufacturing is well established in urban areas.

These lessons are mainly about rural industry that typically makes up only a small part of the rural non-farm economy.

Less has been documented on rural services, but something can be inferred from a comparison of China to India. In both countries the majority of rural non-farm activity is services, and increasingly so with time, so that

differing growth of the RNFE in the two countries can be attributed to the dynamism of rural services.

In China, the RNFE grew rapidly after the reforms of the late 1970s so that the RNFE's share of employment grew from just over 5 percent in 1978 to almost 25 percent by 2000. Success in this case was associated with active local government that needed tax revenues and profits from township and village enterprises¹⁸ (TVEs) that were part owned by the local governments. Hence local authorities were keen to spend on roads and water – as well as irrigation for agriculture – and to maintain law and order. They also reinvested profits from TVEs: a 1992 estimate indicating half were reinvested. It also helped that the state had invested in the education of the rural workforce (Mukherjee and Zhang 2007).

The RNFE developed less well in India, despite more specific measures such as directed credit, protection for small-scale rural industries, tax breaks and creation of rural industrial estates. But investment in rural public goods lagged (ibid.).

A lesson from this comparison is the importance of getting basic conditions such as roads, power and education in place, which China did more than India.

The experience of developing the RNFE in Africa is less well documented. Moreover, most public programmes to stimulate the RNFE have not produced clear success: indeed, more is documented on what to avoid – such as constructing rural industrial estates.¹⁹

ANNEXE C: DETAILED RESEARCH QUESTIONS

Rural transformation and transitions

The questions raised here are those of context. The goal is to make sure that we appreciate the factors that are driving rural change in the countries and at the sites where APRA studies.

Questions	Hypotheses or specific questions	Research
What is the overall context of economic transformation in this case?	<p>How quickly is the economy growing?</p> <p>What are the rates of change for different sectors? How are the shares of output and employment changing across sectors?</p> <p>What is the rate of urbanisation?</p> <p>How is the demographic transition proceeding? What are the levels and trends for life expectancy, under-five mortality, fertility and use of contraception? In particular, the rates seen in rural areas are of interest.</p>	<p>Monitor statistics from national accounts, population censuses, labour force surveys, living standards measurement surveys, demographic and health surveys.</p> <p>Update as and when new data sets – such as the results of a DHS – become available.</p>
Are the drivers of rural transformation in operation?	<p>Is productivity rising in agriculture, above all that of labour?</p> <p>What is the initial distribution of assets (land, human capital, livestock, financial assets)?</p> <p>What conditions of land tenure apply? How secure are the rights of smallholders to the land they till? What of the rights of women as farmers to land and water?</p> <p>Are land transfers taking place? If so, on what terms? And from who to whom?</p> <p>What public investments are being made in roads and other physical infrastructure, and in health, education, water and sanitation? Are public services being used? Are girls as well as boys going to school? What family planning services are available?</p>	<p>Labour productivity, conditions of tenure, and land transfers can all be studied in household surveys of commercialising smallholders and control groups.</p> <p>Where wage labour is widely practised, the use various seasonal wage rates (male, female, children) as a proxy for opportunity cost of rural labour at different times of year.</p> <p>Could investigate the state and use of public services in ancillary household surveys.</p>

What are the consequences of rural transformation for the livelihoods of rural people?	<p>In what activities do working members of rural households engage?</p> <p>How many households have migrants? Where are they? And what do they do?</p> <p>What is the typical rate paid for low-skilled work in the rural economy? Does this differ for men and women?</p> <p>What are transformations in food system (quiet revolution)?</p> <p>How do different households access food, and using what income sources and entitlements?</p>	<p>Information on livelihoods from household surveys.</p> <p>Migration information from household surveys, and in particular from tracker surveys, where deployed.</p> <p>Typical wage rates can be collected for study sites from key informants at regular intervals; perhaps covering the peak agricultural season and the slack season.</p> <p>Typologies of rural livelihoods may be created from above information and other questions on labour use and earnings, see below.</p> <p>Increases in local food processing, packaging; conduct food inventories in local retail shops to assess changes in processed food prevalence and sources (imports, capital city, small towns, rural non-farm).</p>
What are the factors that constrain certain households/groups from productively participating in rural transformation?	<p>Ho: literature suggests several factors, as follows:</p> <p>Personal factors:</p> <ul style="list-style-type: none"> • Lack of formal education • Illness and disability <p>Undernutrition in infancy handicaps people physically and mentally</p> <ul style="list-style-type: none"> • Illness and disability, addiction and violence <p>Economic circumstances:</p> <ul style="list-style-type: none"> • Inability to obtain credit • Lack of assets and patrimony <p>means household is always vulnerable to shocks, facing poverty traps</p> <p>Social norms:</p> <ul style="list-style-type: none"> • Discrimination and prejudice <p>Geography:</p> <ul style="list-style-type: none"> • Lack of decent quality land, water – may be linked to heavy population pressure in some case • Remoteness from urban markets <p>War and strife, very poor governance</p>	<p>These hypotheses can all be tested using the survey data.</p> <p>Assume data to test will be in surveys: but otherwise the need for this noted here.</p>
Rural non-farm economy		

Questions	Hypotheses or specific questions	Research
Agriculture's contribution to the growth of the RNFE	What kind of growth of agriculture and its supply chains tend most to stimulate the RNFE?	Map a selected number of different agricultural supply chains, above all for commercial activities.
	What direct and indirect links arise?	Include in farmer interview questions about the goods and services they buy, and from where.
	What are the prospects for creating local jobs that can be taken up by low-formally skilled ('unskilled') farm household members?	<p>Focus on rural labour markets. Outcome variable = rural unskilled daily wage.</p> <p>Record employment intensity of farming, directly linked activities in the supply chains, and of indirectly linked enterprises.</p> <p>Compare to employment generated in those RNFE activities not linked to farming, such as public services. Select two rural market centres: map activity, sample survey from types of enterprise.</p> <p>Level of mechanisation and rental markets especially for threshers, service milling, irrigation equipment, etc.</p>
	What policies, public investments, collective actions, etc. best assist the development of the RNFE?	<p>Record public, collective, NGO and private initiatives to stimulate the RNFE for the study sites. Correlate these to qualitative interviews with RNFE operators on what makes the difference for their enterprises.</p> <p>Contemplate evaluations of promising, and innovative direct programmes for RNFE development.</p>
RNFE interactions with agriculture	<p>Are earnings from off the farm being channelled back in agriculture? If so, to fund what?</p> <p>Are earnings from agriculture being channelled into non-farm work?</p>	<p>Specific questions on use of earnings from: work on farms of others; local paid employment; earnings from businesses; and remittances from migrants – plus questions on the size of those earnings (broad bands: silly to ask for specific numbers).</p> <p>Use of farm earnings.</p> <p>Comparisons of farm investments by households with and without particular forms of off-farm income.</p> <p>Correlate with access to formal and informal credit, contracting schemes, etc.</p>
	Do youth work on farms? Or do they tend to work off the farm?	Labour use of sampled households, with specific interest in youth (16–35 years).

What is the relationship between different agricultural commercialisation pathways and small-town development/ RNFE?	<p>Supply chains that generate directly substantial local links – think of processing plants – will stimulate growth of rural market towns.</p> <p>Agricultural development based on smallholders will see thriving rural market centres catering to farmers' spending. Ho: SF will spend much of their extra income locally.</p>	<p>Map supply chains, find a measure of rural market centre development.</p> <p>Farmer interviews on use of cash income: what they spend it on, where they spend it.</p> <p>Rates of intensification and commercialisation will often differ spatially. Therefore, spatial coordinates will be important in tracking input use, productivity, wage rates, levels of various forms of RNFE.</p>
How does the rural–urban spatial continuum influence household decisions about the nature and speed of market interaction/ commercialisation?	<p>Households with better access to urban areas are more likely to commercialise than those in more distant locations. Households located in peri-urban/semi-rural areas are more likely to engage in diversified commercial activities (i.e. not just producers, but also further up the supply chain).</p>	<p>Farmer/trader/farm manager interviews in different locations. (We might get this from the surveys anyway, if we are sampling from remote versus more urban areas.)</p>
Is migration an important enabler for household decisions about whether to engage with local markets? And how does gender influence this?	<p>H1: Migration generates remittances that overcome capital limits, allow more investment on farm – so long as the opportunity to get decent returns in farming exists.</p> <p>H2: Migration competes with farm labour, leaves the household more likely to use land for subsistence.</p> <p>H3: When females migrate, they send more remittances than males do (as in Thailand, for example).</p>	<p>Collect migration/mobility data in household surveys. Need to look at permanent/temporary/seasonal and circular migration.</p> <p>Collect remittance data.</p>

Social protection

In APRA we will examine what forms of social protection allow small holders to ‘graduate’ into a trajectory of ‘stepping up’, and what has to be in place to provide safety nets for those who do not benefit from commercialisation (Devereux and Sabates-Wheeler 2015).

Questions	Hypotheses or specific questions	Research
What is the role of social protection in defining the outcomes for vulnerable persons in the rural structural transformation processes?	Investing in social protection contributes to: 1) stabilising incomes and consumption, 2) promoting livelihoods – engaging in more gainful economic activities and work, and 3) prevents destitution which may be irreversible.	Collect social protection information in household survey (through formal and informal transfer information). Farmer interviews over time to see change in outcomes between those with social protection support and those that do not. Qualitative study to map out the nature and extent of social protection.
What forms of social protection have the greatest potential to lead to sustainable ‘stepping up’ and ‘stepping out’?	Stronger coherence between agriculture and social protection interventions can assist in improving the welfare of poor smallholders. Safety nets help to prevent extreme vulnerability. Cash transfers are able to help the poor make productive steps out of poverty to improve their livelihoods. Investments in the non-farm sector afford the poor the possibility to step out.	Farmer interviews over time to see change in outcomes between those with and without social protection support. Qualitative study to map out the nature and extent of social protection.

REFERENCES

- ACET (2014) 2014 African Transformation Report: Growth with Depth, Accra: African Center for Economic Transformation (ACET)
- Adams, Richard H. Jr (2002) 'Nonfarm Income, Inequality and Land in Rural Egypt', *Economic Development and Cultural Change* 50.2: 339–63
- Adams, Richard H. Jr and He, Jane J. (1995) 'Sources of Income Inequality and Poverty in Rural Pakistan,' Research Report 102, Washington DC: International Food Policy Research Institute (IFPRI)
- Adams, Dale W.; Graham, Douglas H. and von Pischke, J.D. (1984) *Undermining Rural Development with Cheap Credit*, Boulder CO: Westview Press
- Agar, Jason (2011) *Rural and Agricultural Finance. Taking Stock of Five Years of Innovations*, microREPORT 181, Washington DC: USAID
- Ali, Daniel Ayalew; Deininger, Klaus and Duponchel, Marguerite (2014) 'Credit Constraints and Agricultural Productivity: Evidence from Rural Rwanda', *Journal of Development Studies*: 50.5: 649–65
- Allen, A.E.; Davila, J.; Hofmann, P. and Brown, D. (2015) *Topic Guide: Building Reciprocal Rural–Urban Linkages Through Infrastructure Investment and Development*, London: Evidence on Demand
- Babatunde, Raphael O. (2012) *Assessing the Effect of Off-Farm Income Diversification on Agricultural Production in Rural Nigeria*, ASC Working Paper 106/2012, Leiden: African Studies Centre
- Bah, M. (2003) 'Changing Rural–Urban Linkages in Mali, Nigeria and Tanzania', *Environment and Urbanization* 15.1: 13–24
- Baker, Jonathan (1990) 'The Growth and Functions of Small Urban Centres in Ethiopia', in *Small-Town Africa: Studies in Rural–Urban Interaction*, Uppsala: Scandinavian Institute of African Studies: 209–27
- Balihuta, Arsene and Sen, Kunal (2001) *Macroeconomic Policies and Rural Livelihood Diversification: A Ugandan Case Study*, LADDER Working Paper 3, Norwich: Overseas Development Group, University of East Anglia
- Barca, V.; Brook, S.; Holland J.; Otulana M. and Pozarny, P. (2015) *Qualitative Research and Analysis of the Economic Impact of Cash Transfer Programmes in Sub-Saharan Africa: Synthesis Report*, PtoP project report, Rome: Food and Agriculture Organization of the United Nations (FAO)
- Bardhan, Pranab (1996) 'Decentralised Development', *Indian Economic Review* 31.2: 139–56
- Beck, Thorsten and Cull, Robert (2014) *SME Finance in Africa*, Policy Research Working Paper 7018, Washington DC: World Bank
- Beegle, Kathleen; Weerdt, Joachim de and Dercon, Stefan (2008) *Migration and Economic Mobility in Tanzania. Evidence from a Tracking Survey*, Policy Research Working Paper 4798, Washington DC: World Bank

- Binswanger-Mkhize, Hans and McCalla, Alex F. (2010) 'The Changing Context and Prospects for Agricultural and Rural Development in Africa', Chapter 70, *Handbook of Agricultural Economics* 4, 3571–3712
- Branigan, T. (2014) 'China Reforms Hukou System to Improve Migrant Workers' Rights', *The Guardian*, 31 July, www.theguardian.com/world/2014/jul/31/china-reform-hukou-migrant-workers (accessed 19 February 2018)
- Breisinger, C.; Diao, X.; Kolavalli, S.; Al Hassan, R. and Thurlow, J. (2011) *A New Era of Transformation in Ghana: Lessons from the Past and Scenarios for the Future*, IFPRI Research Monograph, Washington DC: International Food Policy Research Institute (IFPRI)
- Castañeda Navarrete, J. (2016) 'Home Gardens and Livelihood Security in Yucatán, Mexico', PhD research outline paper, IDS, Brighton
- Chan, K.W. (2010) 'The Household Registration System and Migrant Labor in China: Notes on a Debate', *Population and Development Review* 36.2: 357–64
- Chang, Ha-Joon (2003) 'Institutional Development in Historical Perspective', in Ha-Joon Chang (ed.), *Rethinking Development Economics*, London: Anthem Press
- Chirwa, E.W. and Matita, M.M. (2015) *Space, Markets and Employment in Agricultural Development: Malawi Country Report*, Research Report 45, Cape Town: Institute for Poverty, Land and Agrarian Studies, University of the Western Cape
- Christiaensen, Luc; Weerdt, Joachim and Todo, Yasuyuki (2013) 'Urbanization and Poverty Reduction: The Role of Rural Diversification and Secondary Towns', *Agricultural Economics* 44.4–5: 435–47
- Christiaensen, L.; Demery, L. and Kuhl, J. (2011) *The (Evolving) Role of Agriculture in Poverty Reduction: An Empirical Perspective*, Working Paper 2010/36, Helsinki: UNU-WIDER
- Coady, David; Grosh, Margaret E. and Hoddinott, John (2004) *Targeting of Transfers in Developing Countries: Review of Lessons and Experience*, Vol. 1., Washington DC: World Bank
- DAN (2003) *Off-Farm and Non-Farm Employment in Southeast Asian Transitional Economies and Thailand*, DAN — Cambodia Development Resource Institute, Cambodian Institute for Cooperation and Peace, Central Institute for Economic Management (Vietnam), Institute of Economics (Vietnam), National Economic Research Institute (Lao PDR), National Statistical Research Center (Lao PDR) and Thailand Development Research Institute, Supported by the International Development Research Centre of Canada (IDRC), and the Rockefeller Foundation, Phnom Penh: Development Analysis Network (DAN)
- de Brauw, Alan; Mueller, Valerie and Lee, Hak Lim (2013) 'The Role of Rural–Urban Migration in the Structural Transformation of Sub-Saharan Africa', *World Development* 63: 33–42
- de Haas, Hein (2014) 'What Drives Human Migration?', in B. Anderson and M. Keith (eds), *From Migration: A COMPAS Anthology*, Oxford: COMPAS
- Deichmann, Uwe; Shilpi, Forhad and Vakis, Renos (2009) 'Urban Proximity, Agricultural Potential and Rural Non-Farm Employment: Evidence from Bangladesh', *World Development* 37.3: 645–60
- Delgado, C.L. et al. (1998) *Agricultural Growth Linkages in Sub-Saharan Africa*, IFPRI Research Report 107, Washington DC: International Food Policy Research Institute (IFPRI)
- Dercon, Stefan and Gollin, Douglas (2014) *Agriculture in African Development: A Review of Theories and Strategies*, CSAE Working Paper WPS/2014 22, Oxford: Centre for the Study of African Economies (CSAE)

- Devereux, S. and Sabates-Wheeler, R. (2015) 'Graduating from Social Protection? Editorial Introduction', IDS Bulletin 46.2: 1–12, <http://bulletin.ids.ac.uk/idsbo/article/view/105> (accessed 26 February 2018)
- Devereux, S.; Sabates-Wheeler, R. and Guenther, B. (2008) Linking Social Protection and Support to Small Farmer Development: A Paper Commissioned by FAO, Rome: Food and Agriculture Organization (FAO)
- Diirro, Gracouos (2009) Impact of Off-Farm Income on Agricultural Technology Adoption Intensity and Productivity, Washington DC: International Food Policy Research Institute (IFPRI)
- Dorosh, Paul and Thurlow, James (2012) Can Cities or Towns Drive African Development? Economy-Wide Analysis for Ethiopia and Uganda, Working Paper 2012/50, Helsinki: UNU-WIDER
- Dorward, A. et al. (2006) Promoting Agriculture for Social Protection or Social Protection for Agriculture: Strategic Policy and Research Issues, FAC Discussion Paper 004, Brighton: Future Agricultures Consortium (FAC)
- Duarte, M. and Restuccia, D. (2010) 'The Role of the Structural Transformation in Aggregate Productivity', The Quarterly Journal of Economics 125.1: 129–73
- Eastwood, R. and Lipton, M. (2012) 'The Demographic Dividend: Retrospect and Prospect', Economic Affairs 32.1: 26–30
- Ellis, Frank (1998) 'Household Strategies and Rural Livelihood Diversification', Journal of Development Studies 35.1: 1–38
- Ellis, Frank (2008) 'Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World', Book Review, Journal of Development Studies 44:5: 763–64, doi: 10.1080/00220380802160002
- Ellis, Frank and Bahiigwa, Godfrey (2001) Livelihoods and Rural Poverty Reduction in Uganda, LADDER Working Paper 5, Norwich: Overseas Development Group, University of East Anglia
- Ellis, Frank and Mdoe, Ntengua (2002) 'Livelihoods and Rural Poverty Reduction in Tanzania', LADDER Working Paper 11, Norwich: Overseas Development Group, University of East Anglia
- Evenson, R.E. and Gollin, D. (2003) 'Assessing the Impact of the Green Revolution, 1960 to 2000', Science 300.5620: 758–62
- FAO (2014) The Economic Impacts of Cash Transfer Programmes in Sub-Saharan Africa, PtoP Policy Brief, Rome: Food and Agriculture Organization of the United Nations
- FAO (2011) The State of Food and Agriculture 2010–11. Women in Agriculture: Closing the Gender Gap for Development, Rome: Food and Agriculture Organization of the United Nations
- Fisher, T.; Mahajan, V. and Singha, A. (1997) The Forgotten Sector: Non-Farm Employment and Enterprises in Rural India, London: Intermediate Technology Publications
- Fox, L. and Sohnesen, T.P. (2012) Household Enterprises in Sub-Saharan Africa: Why They Matter for Growth, Jobs, and Livelihoods, Policy Research Working Paper 6184, Washington DC: World Bank
- Frazer, E. (1992) 'Thailand: A Family Planning Success Story: Cooperative Partnerships, Innovative Marketing, and a Sense of Fun Have Helped Thailand Defuse the Population Bomb', In Context 31: 44
- Fry, M. (2011) 'From Crops to Concrete: Urbanization, Deagriculturalization, and Construction Material Mining in Central Mexico', Annals of the Association of American Geographers 101: 1285–1306

- Gavrilovic, M. et al. (2016) Strengthening Coherence between Agriculture and Social Protection to Combat Poverty and Hunger in Africa: Framework for Analysis and Action, Rome: Food and Agriculture Organization of the United Nations (FAO)
- Gilligan, D.O.; Hoddinott, J. and Taffesse, A.S. (2009) 'The Impact of Ethiopia's Productive Safety Net Programme and its Linkages', *Journal of Development Studies* 45.10: 1684–706
- Gollin, D.; Jedwab, R. and Vollrath, D. (2016) 'Urbanization With and Without Industrialization', *Journal of Economic Growth* 21.1: 35–70
- Grabowski, Richard (1995) 'Commercialization, Nonagricultural Production, Agricultural Innovation, and Economic Development', *Journal of Developing Areas* 30: 41–62
- Haggblade, Stephen (2007) 'Alternative Perceptions of the Rural Non-Farm Economy', in Steven Haggblade, Peter B.R. Hazell and Thomas Reardon, *Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World*, Baltimore MD, Johns Hopkins University Press
- Haggblade, Steven; Hazell, Peter and Brown, James (1989) 'Farm-Nonfarm Linkages in Rural Sub-Saharan Africa', *World Development* 17.8: 1173–1201
- Haggblade, S.; Hazell, P.B.R. and Reardon, T. (eds) (2007) *Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World*, Baltimore MD: Johns Hopkins University Press
- Haggblade, Steven; Mead, Donald C. and Meyer, Richard (2007) 'An Overview of Programs for Promoting the Rural Non-Farm Economy', in Steven Haggblade, Peter B.R. Hazell and Thomas Reardon, *Transforming the Rural Non-Farm Economy: Opportunities and Threats in the Developing World*, Baltimore MD: Johns Hopkins University Press
- Haggblade, S.; Smale, M.; Kergna, A.; Thériault, V. and Assima, A. (2017) 'Causes and Consequences of Increasing Herbicide Use in Mali', *European Journal of Development Research* 29: 648–74
- Hall, R.; Scoones, I. and Tsikata, D. (2017) 'Plantations, Outgrowers and Commercial Farming in Africa: Agricultural Commercialisation and Implications for Agrarian Change', *The Journal of Peasant Studies* 44.3: 515–37, doi:10.1080/03066150.2016.1263187 (accessed 19 February 2018)
- Harris, John R. and Todaro, Michael P. (1970) 'Migration, Unemployment and Development: A Two-Sector Analysis', *American Economic Review* 60.1: 126–42
- Hazell, P.B.R. and Ramasamy, C. (1991) *The Green Revolution Reconsidered: The Impact of High-Yielding Rice Varieties in South India*, Baltimore MD: Johns Hopkins University Press
- Headey, Derek; Bezemer, Dirk and Hazell, Peter B. (2008) *Agricultural Exit Problems. Causes and Consequences*, IFPRI Discussion Paper 00802, Washington DC: International Food Policy Research Institute (IFPRI)
- Henderson, J. Vernon (2015) 'Urbanization and the Geography of Development in Countries', in E. Glaeser and A. Joshi-Ghani (eds), *The Urban Imperative: Towards Competitive Cities*, Oxford and Washington DC: Oxford University Press and World Bank
- Henderson, J.V.; Shalizi, Z. and Venables, A.J. (2001) 'Geography and Development', *Journal of Economic Geography* 1.1: 81–105
- Herrendorf, B.; Rogerson, R. and Valentinyi, Á. (2013) *Growth and Structural Transformation*, Prepared for the Handbook of Economic Growth

Ho, S.P.S. (1986) 'Off-Farm Employment and Farm Households in Taiwan', in R.T. Shand (ed.) *Off-Farm Employment in the Development of Rural Asia*, Vol. 1. Canberra: Australian National University

Hossain, Mahabub; Lewis, David; Bose, Manik L. and Chowdhury, Alamgir (2003) *Rice Research, Technological Progress, and Impacts on the Poor: The Bangladesh Case (Summary Report)*, Discussion Paper 110, Washington DC: Environment and Production Technology Division, International Food Policy Research Institute (IFPRI)

Hulme, D. (1990) 'Can the Grameen Bank be Replicated? Recent Experiments in Malaysia, Malawi and Sri Lanka', *Development Policy Review* 8.3: 287–300

Hymer, S. and Resnick, S. (1969) 'A Model of an Agrarian Economy with Nonagricultural Activities', *The American Economic Review* 59.4: 493–506

IMF (2014) *Regional Economic Outlook. Sub-Saharan Africa: Fostering Durable and Inclusive Growth*, April, Washington DC: International Monetary Fund (IMF)

Jitramontree, P. (2007) 'Family Planning in Thailand', *Columbia University Journal of Bioethics and Supplement on BIOCEP* 6.1: 79–81

Johnston, Deborah (2015) *Disguised Employment? Labour Market Surveys, Migration and Rural Employment in Southern Africa*, London: Routledge

Johnston, B.F. and Kilby, Peter (1975) *Agriculture and Structural Transformation*, New York: Oxford University Press

Keats, S. and Wiggins, S. (2016) *Population Change in the Rural Developing World: Making the Transition*, London: Overseas Development Institute

Khan, Mushtaq H. (2002) 'State Failure in Developing Countries and Strategies of Institutional Reform', draft paper for World Bank ABCDE Conference, Oslo, June

Kinda, Tidiane and Loening, Josef L. (2010) 'Small Enterprise Growth and the Rural Investment Climate: Evidence from Tanzania', *African Development Review* 22.1: 173–207

Korten, D.C. (1980) 'Community Organisation and Rural Development: A Learning Process Approach', *Public Administration Review* September/October: 480–511

Krugman, P. (1993) 'First Nature, Second Nature, and Metropolitan Location', *Journal of Regional Science* 33.2: 129–44

Lall, S.V.; Selod, H. and Shalizi, Z. (2006) *Rural–Urban Migration in Developing Countries: A Survey of Theoretical Predictions and Empirical Findings*, World Bank Policy Research Working Paper 3915, Washington DC: World Bank

Lange, A.; Piore, A.; Siebert, R. and Zasada, I. (2013) 'Spatial Differentiation of Farm Diversification: How Rural Attractiveness and Vicinity to Cities Determine Farm Households' Response to the CAP', *Land Use Policy* 31 (March): 136–44

Lanjouw, P. (2007) 'Does the Rural Nonfarm Economy Contribute to Poverty Reduction?', in S. Haggblade, P.B.R. Hazell and T. Reardon (eds), *Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World*, Baltimore MD: Johns Hopkins University Press

Lanjouw, Peter and Feder, Gershon (2001) *Rural Non-Farm Activities and Rural Development. From Experience Towards Strategy*, Rural Development Strategy Background Paper 4, Washington DC: World Bank

- Lerner, Amy M.; Eakin, Hallie and Sweeney, Stuart (2013) 'Understanding Peri-Urban Maize Production Through an Examination of Household Livelihoods in the Toluca Metropolitan Area, Mexico', *Journal of Rural Studies* 30: 52–63
- Lewis, W.A. (1954) 'Economic Development with Unlimited Supplies of Labour', *The Manchester School* 22.2: 139–91
- Liedholm, Carl (2007) 'Enterprise Dynamics in the Rural Non-Farm Economy', in Steven Haggblade, Peter B.R. Hazell and Thomas Reardon, *Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World*, Baltimore MD: Johns Hopkins University Press
- Long, Wenjin; Appleton, Simon and Song, Lina (2013) *Job Contact Networks and Wages of Rural–Urban Migrants in China*, IZA Discussion Paper 7577, Bonn: Institute for the Study of Labor
- Losch, B.; Fréguin-Gresh, S. and White, E.T. (2012) *Structural Transformation and Rural Change Revisited: Challenges for Late Developing Countries in a Globalizing World*, Washington DC: International Bank for Reconstruction and Development/World Bank
- Low, A. (1986) *Agricultural Development in Southern Africa: Farm-household Economics and the Food Crisis*, London: James Curry
- Maertens, Miet (2009) 'Horticulture Exports, Agro-Industrialization, and Farm–Nonfarm Linkages with the Smallholder Farm Sector: Evidence from Senegal', *Agricultural Economics* 40.2: 219–29
- Mandal, M.A. Sattar (2002) 'Agricultural Machinery Manufacturing and Farm Mechanization: A Case of Rural Non-Farm Economic Development on Bangladesh', paper presented to the Workshop on Fostering Rural Development Agriculture-Based Enterprises and Services, GTZ/DFID/IFAD/CTA/IBRD, Berlin, November
- Manor, James (1999) *The Political Economy of Democratic Decentralization*, Washington DC: World Bank
- Mathenge, Mary; Smale, Melinda and Opiyo, Joseph (2013) 'Off-Farm Work and Fertilizer Intensification among Smallholder Farmers in Kenya: A Cross-Crop Comparison', selected paper prepared for presentation at the Agricultural and Applied Economics Association 2013 AAEA and CASE Joint Annual Meeting, 4–6 August, Washington DC
- Mathenge, Mary K.; Smale, Melinda and Tschirley, David (2015) 'Off-Farm Employment and Input Intensification among Smallholder Maize Farmers in Kenya', *Journal of Agricultural Economics* 66.2: 519–36
- Martin, W. and Mitra, D. (2001) 'Productivity Growth and Convergence in Agriculture versus Manufacturing', *Economic Development and Cultural Change* 49.2: 403–22
- Martins, Christine; Faltermeier, Gertraud and Triemer, Sabine (2002) 'Experiences in Fostering Economic Development. Nine Case Studies', GTZ, Eschborn, Berlin and Wildenberg, September 2002; paper presented to the Workshop on Fostering Rural Development Agriculture-based Enterprises and Services, GTZ/DFID/IFAD/CTA/IBRD, Berlin, November
- Matin, Imran; Hulme, David and Rutherford, Stuart (2002) 'Finance for the Poor: From Microcredit to Microfinancial Services', *Journal of International Development* 14: 273–94
- McPherson, M. and Henry, C. (1994) *Rural Micro and Small Enterprises in Malawi: Effects of Burley Tobacco Policy Changes*, GEMINI Technical Report, Bethesda MD: Development Alternatives
- Meyer, Richard L. (2015) *Financing Agriculture and Rural Areas in Sub-Saharan Africa: Progress, Challenges and the Way Forward*, IIED Working Paper, London: International Institute for Environment and Development

Mukherjee, Anit and Zhang, Xiaobo (2007) 'Contrasting Rural Nonfarm Policies and Performance in China and India: Lessons for the Future', in Steven Haggblade, Peter B.R. Hazell and Thomas Reardon, Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World, Baltimore MD: Johns Hopkins University Press

Nagler, P. and Naudé, W. (2014) Non-Farm Entrepreneurship in Rural Africa: Patterns and Determinants, IZA Discussion Paper 8008, Bonn: Non-Farm Entrepreneurship in Rural Africa: Patterns and Determinants (IZA)

Neves, D. and Hakizimana, C. (2015) Space, Markets and Employment in Agricultural Development: South Africa Country Report, Research Report 47, Cape Town: Institute for Poverty, Land and Agrarian Studies, University of the Western Cape

Otsuka, Keijiro (2007) 'The Rural Industrial Transition in East Asia: Influences and Implications', in Steven Haggblade, Peter B.R. Hazell and Thomas Reardon, Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World, Baltimore MD: Johns Hopkins University Press

Otsuka, Keijiro and Reardon, Thomas (1998) 'Lessons from Rural Industrialization in East Asia: Are They Applicable to Africa?', paper 13, IFPRI Conference, Strategies for Stimulating Growth of the Rural Nonfarm Economy in Developing Countries, May, Airlie Ho VA

Otsuka, K.; Liu, Y. and Yamauchi, F. (2016) 'The Future of Small Farms in Asia', Development Policy Review 34.3: 441–61

Oya, C. (2013) 'The Land Rush and Classic Agrarian Questions of Capital and Labour: A Systematic Scoping Review of the Socio-Economic Impacts of Land Grabs in Africa', Third World Quarterly 34.9: 1532–57

Pischke, J. von; Adams, Dale W. and Donald, Gordon (eds) (1983) Rural Financial Markets in Developing Countries: Their Use and Abuse, World Bank Institute EDI Series in Economic Development, Baltimore MD: Johns Hopkins University Press

Potts, Deborah (2000) 'Worker–Peasants and Farmer–Housewives in Africa: The Debate about “Committed” Farmers, Access to Land and Agricultural Production', Journal of Southern African Studies 26.4: 807–32

Quigley, John M. (2008) Urbanization, Agglomeration, and Economic Development, Working Paper 19, Commission on Growth and Development, Washington DC: World Bank

Radelet, S. (2010) Emerging Africa: How 17 Countries Are Leading the Way, CGD Brief, Washington DC: Center for Global Development

Ranis, Gustav and Stewart, Frances (1993) 'Rural Non-Agricultural Activities in Development. Theory and Application', Journal of Development Economics 40: 75–101

Reardon, T. et al. (2015) 'Urbanization, Diet Change, and Transformation of the Downstream and Midstream of the Agrifood System: Effects on the Poor in Africa and Asia', Faith and Economics 66 (Fall): 43–63

Rigg, Jonathan (forthcoming, 2019) More Than Rural: Textures of Thailand's Agrarian Transformation, Honolulu: Hawaii University Press

Rigg, Jonathan and Nattapoolwat, Sakunee (2001) 'Embracing the Global in Thailand: Activism and Pragmatism in an Era of Deagrarianization', World Development 29.6: 945–60

Rigg, Jonathan; Promphaking, Buapun and le Mare, Ann (2014) 'Personalizing the Middle-Income Trap: An Inter-Generational Migrant View from Rural Thailand', World Development 59: 184–98

- Rigg, Jonathan; Salamanca, Albert and Parnwell, Michael (2012) 'Joining the Dots of Agrarian Change in Asia: A 25 Year View from Thailand', *World Development* 40.7: 1469–81,
- Rijkers, Bob; Salamanca, Albert and Parnwell, Josef L. (2010) 'A Rural–Urban Comparison of Manufacturing Enterprise Performance in Ethiopia', *World Development* 38.9: 1278–96
- Rogaly, Ben (1996) 'Micro-Finance Evangelism, "Destitute Women", and the Hard Selling of a New Anti-Poverty Formula', *Development in Practice* 6.2: 100–12
- Rogaly, B. et al. (2001) 'Seasonal Migration, Social Change and Migrants' Rights: Lessons from West Bengal', *Economic and Political Weekly* 36.49: 4547–59
- Rostow, W.W. (1960) *The Stages of Economic Growth*, Cambridge: Cambridge University Press
- Sabates-Wheeler, R.; Dorward, A.; Macauslan, I. and Penrose Buckley, C. (2007) *Exploiting Synergies between Agriculture and Social Protection: A Platform for Pro-Poor Growth? Working Paper 1*, Brighton: Future Agricultures Consortium
- Saith, A. (1992) *The Rural Non-Farm Economy: Processes and Policies*, Geneva: International Labour Office
- Satterthwaite, D.; Mcgranahan, G. and Tacoli, C. (2010) 'Urbanization and its Implications for Food and Farming', *Philosophical Transactions of the Royal Society B-Biological Sciences* 365: 2809–20
- Slater, R. et al. (2016) *Strengthening Coherence between Agriculture and Social Protection: Synthesis of Seven Country Case Studies*, Rome: FAO
- Soares, F.V.; Knowles, M.; Daidone, S. and Tirivayi, N. (2015) *Combined Effects and Synergies between Agricultural and Social Protection Interventions: What Is the Evidence So Far?*, Rome: FAO
- Stark, Oded and Bloom, David E. (1985) 'The New Economics of Labor Migration', *American Economic Review* 75.2: 173–78
- Stifel, D. (2010) 'The Rural Non-Farm Economy, Livelihood Strategies and Household Welfare', *African Journal of Agricultural and Resource Economics* 4.1: 82–109
- Sukume, C.; Mavedzenge, B.; Murimbarima, F. and Scoones, I. (2015) *Space, Markets and Employment in Agricultural Development: Zimbabwe Country Report*, Research Report 46, Cape Town: Institute for Poverty, Land and Agrarian Studies, University of the Western Cape
- Swinburn, Gwen; Murphy, Fergus and Goga, Soraya (2006) *Local Economic Development: A Primer Developing and Implementing Local Economic Development Strategies and Action Plans*, Washington DC: World Bank
- Szirmai, A. (2012) 'Industrialisation as an Engine of Growth in Developing Countries, 1950–2005', *Structural Change and Economic Dynamics* 23.4: 406–20
- Tacoli, C. (2003) 'The Links between Urban and Rural Development', *Environment and Urbanization* 15.1: 3–12
- Tacoli, C. (2002) *Changing Rural–Urban Interactions in Sub-Saharan Africa and their Impact on Livelihoods: A Summary*, Working Paper 7, London: International Institute for Environment and Development
- Tacoli, C. (1998) 'Rural–Urban Interactions: A Guide to the Literature', *Environment and Urbanization* 10.1: 147–66
- Tacoli, C. and Satterthwaite, D. (2013) 'Editorial: Gender and Urban Change', *Environment and Urbanization* 25.1: 3–8

- Tamru, S.; Minten, B.; Bachewe, F. and Alemu, D. (2017) 'The Rapid Expansion of Herbicide Use in Smallholder Agriculture in Ethiopia: Evidence, Drivers and Implications', *European Journal of Development Research* 29: 622–48
- Taylor, J. and Yúnez-Naude, Antonio (2002) 'Farm/Non-Farm Linkages and Agricultural Supply Response in Mexico: A Village-Wide Modelling Perspective', in B. Davis, T. Reardon, K.G. Stamoulis and P. Winters (eds), *Promoting Farm/Non-Farm Linkages for Rural Development: Case Studies from Africa and Latin America*, Rome: Food and Agriculture Organization of the United Nations (FAO)
- Tiffin, R. and Irz, X. (2006) 'Is Agriculture the Engine of Growth?', *Agricultural Economics* 35.1: 79–89
- Timmer, P.C. (2009) *A World Without Agriculture: The Structural Transformation in Historical Perspective*, Washington DC: AEI Press
- Tirivayi, N.; Knowles, M. and Davis, B. (2016) 'The Interaction between Social Protection and Agriculture: A Review of Evidence', *Global Food Security* 10 (September): 52–62
- Tirivayi, N.; Knowles, M. and Davis, B. (2013) *The Interaction between Social Protection and Agriculture: A Review of Evidence*, Rome: FAO
- Tschirley, D.; Reardon, T.; Dolislager, M. and Snyder, J. (2015) 'The Rise of a Middle Class in East and Southern Africa: Implications for Food System Transformation', *Journal of International Development* 27.5: 628–46
- Wiggins, S. (2018) *Agricultural Commercialisation: Lessons from Asia and Latin America*, APRA Working Paper 7, Brighton: IDS
- Wiggins, S. (2014) 'Rural Non-Farm Economy: Current Understandings, Policy Options, and Future Possibilities', in P.B.R. Hazell and A. Rahman (eds), *New Directions for Smallholder Agriculture*, Oxford: Oxford University Press
- Wiggins, Steve and Hazell, Peter (2011) *Access to Rural Non-Farm Employment and Enterprise Development*, background paper for the IFAD Rural Poverty Report 2011
- Wiggins, S. and Keats, S. (2015) *Topic Guide: Stepping out of Agriculture, Evidence on Demand*, London: Overseas Development Institute, http://dx.doi.org/10.12774/eod_tg.february2015.wigginssetal (accessed 19 February 2018)
- Wiggins, S. and Keats, S. (2014) *Rural Wages in Asia*, London: Overseas Development Institute
- Wiggins, Steve and Proctor, Sharon (2001) 'How Special are Rural Areas? The Economic Implications of Location for Rural Development', *Development Policy Review* 19.4: 427–36
- World Bank (2013) *Global Monitoring Report 2013: Rural–Urban Dynamics and the Millennium Development Goals*, Washington DC: International Bank for Reconstruction and Development/World Bank
- World Bank (2009) *World Development Report 2009: Reshaping Economic Geography*, Washington DC: International Bank for Reconstruction and Development/World Bank
- World Bank (2007) *World Development Report 2008: Agriculture for Development*, Washington DC: International Bank for Reconstruction and Development/World Bank
- World Bank (2006) 'Revitalizing the Rural Economy: An Assessment of the Investment Climate Faced by Non-Farm Enterprises at the District Level', consultative draft, World Bank Office, Jakarta
- World Bank and ONE (2014) *Levelling the Field: Improving Opportunities for Women Farmers in Africa*, Washington DC/London: World Bank/ONE

Yaro, J.A. (2006) 'Is Deagrarianisation Real? A Study of Livelihood Activities in Rural Northern Ghana', *Journal of Modern African Studies* 44.1: 125–56

Yaro, J.A.; Awumbila, M. and Teye, J.K. (2015) 'The Life Struggles and Successes of the Migrant Construction Worker in Accra, Ghana', *Ghana Journal of Geography* 7.2: 113–31

1. This effect is known as 'Dutch Disease'. Raising the value of the currency means that the value of exports and the cost of imports in local currency fall. Farmers may thus see lower prices for crops they export, while on domestic markets prices may be depressed by competition from imported food.
2. Recent evidence for Asia (Wiggins and Keats 2014) suggests that slowing population growth in rural areas is associated with significant increases in rural wage rates.
3. That is voluntary, well-informed, and delivered at the door by female paramedics. A good example of this is the family planning programme developed in Thailand in the 1970s. This led to a sharp increase in the number of married women using contraception, and a corresponding fall in the fertility rate (Korten 1980; Frazer 1992; Jitramontree 2007).
4. For Ethiopia, Rijkers et al. (2010) find rural manufacturing to be less competitive than urban, unless located in rural market centres: 'Our analysis furthermore suggests that improving electricity supply, facilitating better access to credit and rectifying market imperfections that raise the cost of capital would help catalyse the growth of small enterprises. Promoting market towns might help facilitate geographic targeting of such interventions.'
5. Faroe island knitwear exemplifies both these conditions. Still knitted on the islands, sweaters and cardigans have become very high-value fashion items. Similarly, Harris tweed is still woven in the Hebrides.
6. Countries included and dates of reported statistics: Africa — Cameroon (1987), Ethiopia (1994), Ivory Coast (1986), Malawi (1998), Mozambique (1980), Namibia (1981), South Africa (1996) and Zambia (2000); Asia — Bangladesh (2001), India (1991), Indonesia (1995), Iran (1986), Korea (1980), Nepal (1981), Pakistan (1998), Philippines (1981), Sri Lanka (1981), Thailand (1996) and Vietnam (1997); West Asia and North Africa — Egypt (1986), Morocco (1994), and Turkey (1990); and Latin America — Argentina (1980), Bolivia (1988), Chile (1984), Dominican Republic (1981), Ecuador (1990), Honduras (1988), Uruguay (1985) and Venezuela (1990).
7. Statistics are inexact. Measuring the RNFE is not easy: many non-farm activities in rural areas are part-time, seasonal, intermittent, micro-scale and informal, with few written records kept. Comparing across countries is not entirely reliable either owing to the differences in what is considered rural.
8. In remote areas of high-income countries, public employment may be one of the largest sources of jobs. In remote rural areas of the UK, for example, such as the Highlands and Islands and central Wales, 30 percent or more of the workforce are employed in public services.
9. A large share of Africa's food import consists of barley, rice and wheat: staples. As incomes increase, most of the additional spending on food will be on complementary, higher value foods, rather than staples.
10. This may seem obvious, but has been lost to sight in the past. From the 1950s to at least the 1990s, policy for the RNFE tended to focus on promoting supply from individual enterprises (see Haggblade, Mead and Meyer 2007 for a history of non-farm promotion). Industrial estates in market centres, training in skills, grants and cheap credit for business start-ups and business advisory services were typically the instruments deployed. By and large, these measures were not that successful. It is not hard to imagine why. By focusing on supply, demand was easily overlooked. Manufacturing was often the focus of attention — not surprising since the implementing agency was often a ministry of industry. But this meant that services, the majority of rural businesses, were ignored. With efforts focused on individual enterprises, or at best, a cluster of businesses, limited budgets meant the programmes lavished attention on a small fraction of non-farm businesses, leaving the rest unattended.
11. The cost of deficiencies in rural financial services is usually a matter of specialist opinion. Few objective estimates of the cost have been made. An exception is Rwanda, where Ali, Deininger and Duponchel (2014) report significant differences in the chances of off-farm self-employment for rural households with limited access to credit. Households with credit can produce 17 percent more than those without, all other things being equal.
12. In the 1980s BRAC, Bangladesh hoped that microcredits could transform the lives of very poor people in rural

areas. They soon realised that the very poor needed more direct assistance before they could contemplate the risk of taking on loans (Matin and Hulme 2003).

13. For a more detailed review see Castañeda Navarrete (2016).
14. This section draws on, and extends, Wiggins and Keats (2015).
15. The HABP has since evolved into Other Food Security Programmes (OFSP).
16. National cash transfer programmes in Ethiopia, Ghana, Kenya, Lesotho, Malawi, Tanzania, Zambia and Zimbabwe were included in the review.
17. Draws largely on material from: for Taiwan, Ranis and Stewart (1993), Otsuka and Reardon (1998); for Korea, Otsuka and Reardon (1998); for Thailand, DAN (2003), Martins (2002), Rigg and Nattapoolwat (2001), Rigg et al. (2012), Rigg et al. (2014).
18. Although in the late 1970s more than 60 percent of jobs in TVEs were industrial, by 1990 the industrial share had fallen to 47 percent as commerce and transport increasingly provided the non-farm jobs (Mukherjee and Zhang 2007).
19. Not much information exists on the size and performance of rural non-farm enterprises in Africa, so the kinds of Asian comparisons reported here cannot readily be made for Africa. Development programmes for the RNFE in Africa, where they can be seen, have tended to be piecemeal efforts — probably reflecting that activities to stimulate the RNFE correspond to different ministries — such as provision of business services, training, and the rural industrial estates mentioned.

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