

THE LEAST DEVELOPED COUNTRIES REPORT 2015

Transforming Rural Economies

Chapter 1 The 2030 Agenda for Sustainable Development and the Rural Development Imperative





UNITED NATIONS New York and Geneva, 2015



CHAPTER THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT AND THE RURAL DEVELOPMENT IMPERATIVE



A. The significance and implications of the 2030 Agenda for Sustainable Development for LDCs

The year 2015 marks the transition from the Millennium Development Goals (MDGs) to the much broader 2030 Agenda for Sustainable Development¹ and the much more ambitious Sustainable Development Goals (SDGs) (box 1.1). This represents a paradigm shift in the development agenda. The SDGs, for the first time, establish a collectively agreed set of universal goals for an inclusive and sustainable global development process. They also represent a step change in ambition, seeking not merely to reduce poverty in all its dimensions, but to eradicate it within just 15 years. Achieving this will require a new and different approach to development, and nowhere more so than in the least developed countries (LDCs).

Clearly, the SDGs are not the only reason for concern about poverty and human development. Poverty eradication, better health, education and access to basic services are of intrinsic importance. Indeed, they are the motivation for economic development. However, the SDGs reflect two fundamental changes:

The SDGs represent an acceptance by the global community of collective responsibility for fulfilment of social and economic rights.

The 2030 Agenda for Sustainable

Development represents a paradigm

shift in the development agenda.

- They represent an acceptance of collective responsibility for fulfilment of social and economic rights among the world population by the global community as a whole.
- They specify exact parameters for what constitutes fulfilment of economic and social rights, and a date (2030) by which this should be done.

The absolute nature of the SDGs also has critical implications for global and national approaches to development. First, it requires an enormous acceleration in the rate of progress. For example, poverty eradication means increasing the

Box 1.1. The Sustainable Development Goals

- Goal 1 End poverty in all its forms everywhere
- Goal 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3 Ensure healthy lives and promote well-being for all at all ages
- Goal 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5 Achieve gender equality and empower all women and girls
- Goal 6 Ensure availability and sustainable management of water and sanitation for all
- Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all
- **Goal 8** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10 Reduce inequality within and among countries
- Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12 Ensure sustainable consumption and production patterns
- Goal 13 Take urgent action to combat climate change and its impacts
- Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- **Goal 15** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- **Goal 16** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17 Strengthen the means of implementation and revitalize the global partnership for sustainable development

minimum level of income in the world — the "global consumption floor" — to a level no lower than the specified poverty line (\$1.25 per person per day at 2005 purchasing power parity (PPP)).² Recent estimates suggest that this would require the global consumption floor to be approximately doubled by 2030, after stagnating for 20–30 years (chart 1.1.) As discussed later, field data from rural areas of LDCs indicate that minimum incomes are often far below this estimated floor.

Second, the absolute nature of the SDGs implies a fundamental shift in focus, towards areas of greatest need. Under the MDGs, global poverty has been halved, mainly by accelerating poverty reduction in the more successful developing countries, where the potential is greatest, but with much more limited progress elsewhere. It can only be eradicated if it is eradicated everywhere; and this requires a much stronger focus on those countries where poverty reduction is most difficult — that is, in the LDCs.

As shown in chart 1.2, all but seven LDCs have a poverty headcount ratio above 30 per cent, while only five other developing countries (ODCs), all in sub-Saharan Africa, have ratios above 25 per cent. In six LDCs the figure is 70–90 per cent, and in eight others, 50–70 per cent. As of 2011, only eight LDCs were on track to halve poverty between 1990 and 2015 (those below the solid line in chart 1.2), while poverty had increased since 1990 in seven (those above the dotted line). Outside sub-Saharan Africa, only four ODCs, all with poverty between 4 and 7 per cent, were off track, while half of ODCs in sub-Saharan Africa are on track. The SDGs require an enormous acceleration in the rate of social progress and a shift of focus towards areas of greatest need.

Poverty is systematically higher, and has fallen more slowly, in LDCs than in ODCs...





Source: Ravallion (2014), table 1, p. 32. The solid lines indicate estimates of the global consumption floor (the per capita consumption level of the poorest households globally) until 2011; the dotted line indicates the increase required from 2015 (assuming no further reduction since 2011) if poverty is to be eradicated by 2030.



Source: PovcalNet: the online tool for poverty measurement developed by the Development Research Group of the World Bank (http:// iresearch.worldbank.org/PovcalNet/index.htm, accessed July 2015).

...and shortfalls from SDG standards are much greater relative to GDP.

Not only is poverty systematically higher in LDCs, and falling more slowly, but the means available to them are also much more limited. As shown in chart 1.3, both the poverty gap³ and infrastructure shortfalls in almost all LDCs are much higher than in nearly all ODCs relative to gross domestic product (GDP). In only seven of 54 ODCs for which data are available (all but one in sub-Saharan Africa) is the poverty gap greater than 1 per cent of GDP or is there more than one person per \$1,000 GDP without access to water, electricity or sanitation; in two thirds, both indicators are less than one fifth of this level. Among LDCs, only Bhutan and Djibouti fall within this range. At the other end of the scale, four LDCs have both a poverty gap greater than 20 per cent of GDP and more than four people per \$1,000 GDP without access to water, electricity or sanitation. In many LDCs, limited administrative capacity, transport logistics, geographical challenges and/or conflict represent additional serious obstacles.

Thus the LDCs are, quite simply, the battleground on which the 2030 Agenda will be won or lost: Their performance will very largely determine whether the SDGs are met or missed. It is here that poverty is highest and falling most slowly, and where the obstacles to its eradication are greatest. Within LDCs, by the same logic, the key battleground will be the rural economy.

Rural development is of particular importance in LDCs, partly because their populations are predominantly rural...

B. The importance of rural development and agriculture in LDCs

Rural development is of particular importance in LDCs, in part because of their predominantly rural populations. Two thirds of the total population of LDCs live in rural areas, and in only six (Djibouti, Gambia, Haiti, Mauritania, Sao Tome and Principe, and Tuvalu) is the proportion below 50 per cent. Even with continued rapid urbanization, and projected rural population growth slowing from 1.6 per cent per annum in 2010–2015 to 0.5 per cent per annum in 2045– 2050 (UN/DESA, 2014), this pattern is unlikely to change substantially by 2030.





Sources:UNCTAD secretariat estimates, based on data from World Bank PovcalNet database (http://iresearch.worldbank.org/PovcalNet/ index.htm) and World Development Indicators Database http://databank.worldbank.org/data/views/variableselection/selectvariables. aspx?source=world-development-indicators) (both accessed July 2015).

As shown in chart 1.4, the rural population of LDCs is projected both to remain generally larger than in ODCs as a share of total population and to grow more quickly.⁴ The average rural share in LDCs' population in 2030 is projected to be two thirds higher than in ODCs (56.5 per cent compared with 34 per cent), and the average growth rate up to 2030 to be 1.3 per cent per annum in LDCs, but -0.1 per cent in ODCs. This pattern is fairly consistent across LDCs: in most cases, 50–60 per cent of the population will reside in rural areas in 2030. While the proportion in nine LDCs is projected to be significantly below this level, a similar number are in a range of 70–85 per cent. The rural population is projected to grow at around 1–2 per cent per annum in most LDCs, stagnating or declining only in seven cases (four of them in Asia).

...and partly because of the importance of agriculture to the economy and employment.



Source: UNCTAD secretariat calculations, based on UN/DESA, World Urbanization Prospects: the 2014 revision (http://esa.un.org/unpd/wup/ CD-ROM/), Files 4 and 5 (accessed January 2015).

A second reason for the importance of rural economies in LDCs is the major role of agriculture in employment, production and (in most cases) exports. Despite a slight reduction in most LDCs in the past 25 years, agriculture still accounts for 40–80 per cent of employment in most LDCs (chart 1.5), with an average of 60 per cent in LDCs as a whole, and 68 per cent in the Africa plus



Source: ILO, Trends Economic Models, October 2014 (http://www.ilo.org/global/research/global-reports/weso/2015/lang-en/index.htm, accessed July 2015).

Haiti group. The greatest reductions have occurred in Cambodia, Equatorial Guinea, Myanmar, Timor-Leste and Yemen, while only five LDCs (Central African Republic, Comoros, Madagascar, Niger and Senegal) have experienced an increase.

Agriculture also accounts for 25 per cent of value added across LDCs as a whole, with a substantially lower share in islands (12.9 per cent) than in Asia (24.1 per cent) or the Africa plus Haiti group (25.9 per cent) (chart 1.6). This represents a major reduction and a divergence since the early 1990s, when all three groups were in a range of 33–36 per cent. In most LDCs, agriculture accounts for around 20–50 per cent of output, and the reduction has been general, with increases in only 11 cases, all in sub-Saharan Africa. In Gambia and Guinea, the share of agriculture increased by more than half, but larger absolute increases occurred in Comoros (from 39.1 per cent to 50.7 per cent) and Liberia (from 52.2 per cent to 70.7 per cent). The largest decline (from 51.3 per cent to just 1.9 per cent) was in Equatorial Guinea, reflecting the growth of energy production.

The share of agriculture in total merchandise exports has also generally fallen since the mid-1990s, although with substantial increases in some services exporters, such as Gambia, Liberia and Tuvalu (chart 1.7). In food and agricultural exporters (see the classification of LDCs by export specialization, p.xiii), the figure remains above 80 per cent, agricultural exports being mostly (89–99 per cent) food in Guinea-Bissau, Malawi and Somalia, but mostly (78 per cent) non-food in the Solomon Islands. The share of agriculture in imports has changed less systematically, although there is a strong tendency for the proportion to decline in mixed exporters (chart 1.8). Generally increasing shares of food imports have been partly offset by declining shares of non-food imports, with the notable exceptions of Bangladesh and Sierra Leone, which experienced substantial increases.

Agriculture accounts for 25 per cent of value added across LDCs as a whole...

...but its share in exports has declined since the mid-1990s...



Source: UNCTAD, UNCTADstat database (http://unctadstat.unctad.org/EN/) (accessed June 2015).



Chart 1.7. Agriculture share in total exports of LDCs, 1995–1997 and 2011–2013 (Per cent)

Source: UNCTAD, UNCTADstat database (http://unctadstat.unctad.org/EN/) (accessed 8 June 2015). Note: For the classification of LDCs according to export specialization, see page xiii.





Source: UNCTAD, UNCTADstat database (http://unctadstat.unctad.org/EN/) (accessed 8 June 2015). *Note*: For the classification of LDCs according to export specialization, see page xiii.

The net result has been a major increase in the trade deficit of LDCs in agricultural goods, from \$2.0 billion in 1995–1997 to \$21.8 billion in 2011–2013 (chart 1.9). This essentially represents increases in the deficits of fuel exporters (from \$0.7 billion to \$11.9 billion) and manufactured exporters (from \$1.1 billion to \$10.6 billion). In the former case, the increase has occurred mainly in food trade; in the latter case, non-food trade plays a more significant role, reflecting the importance of textiles industries. Food and agricultural exporters (except Somalia) have experienced increased surpluses, while the majority of mixed exporters and some services exporters have also improved their agricultural trade balances. Among geographical and structural groups (see classification of LDCs on p. xiii), the pattern is more consistent, with all groups experiencing major deteriorations in their food trade balances (table 1.1).

...contributing to a major increase in their trade deficit in agricultural goods.



Source: UNCTAD, UNCTADstat database (http://unctadstat.unctad.org/EN/) (accessed 8 June 2015). *Note:* For the classification of LDCs according to export specialization, see page xiii.

Table 1.1. LDC agricultural trade indicators										
	Agriculture as percentage of exports, 2011–	Agriculture as percentage of imports, 2011–2013	Agricultural trade balance, 2011–2013 (Millions of dollars)	Food trade balance (Millions of dollars)						
	2013	(of which, food)		1995–1997	2011–2013					
LDCs (total)	12.4	19.6 (17.7)	-18 872	-1 980	-21 800					
African LDCs and Haiti	11.9	18.3 (17.3)	-7 521	-393	-10 285					
Asian LDCs	13.0	21.6 (18.4)	-11 259	-1 623	-11 195					
Island LDCs	72.2	26.4 (24.2)	-92	36	-320					
Source: UNCTAD, UNCTADstat database (http://unctadstat.unctad.org/EN/) (accessed June 2015).										

C. Rural economies, urban economies and proximity

Focusing on rural development clearly does not imply that urban development should or can be neglected: The idea of rural development as an alternative to urban development represents a false choice. Sustainable development and poverty eradication clearly require both; and even for rural economies, the relationship with urban areas is a key consideration.

Proximity to towns provides both a market for labour and outputs and access to productive inputs and services; and rural-urban migration provides both an exit mechanism for surplus labour and a source of income for some rural households through remittances. Rural-urban migration is also an important consideration for urban economies. Successful development has typically been driven by increasing agricultural productivity, simultaneously providing an urban workforce for industrial development via rural-urban migration and surplus agricultural production with which to feed them. This interaction is critical to the development process, particularly in its earliest stages.

However, such developmental benefits of rural-urban migration are far

from universal or automatic. It is the possibility of formal-sector employment rather than the actual securing of a formal-sector job that attracts migrants to urban areas; and most are either unemployed or engaged in low-income, lowproductivity informal activities while seeking formal employment (Harris and Todaro, 1970; Fields, 1972). This can give rise to the "Todaro paradox" of urban

> Adverse effects on urban poverty are more likely where, as in many African LDCs, rural-urban migration is driven more by "push" factors — particularly the lack of economic opportunities in rural areas - than by the "pull" of urban job creation. Where rural-urban migration exceeds urban job creation, this adds to the chronic oversupply of labour in the urban informal sector, increasing urban poverty and exacerbating strains on social infrastructure (housing, water, sanitation, schools, health facilities, etc.).

job creation increasing urban poverty (Todaro, 1976).

While the manufacturing sector can provide valuable opportunities for employment creation, there are growing indications that this alone will be insufficient to eradicate poverty. Historically, manufacturing employment peaked at around 30 per cent, and countries achieving high-income status have consistently achieved a peak of at least 18-20 per cent; but it now peaks at just 13-15 per cent (Rodrik, 2014; Felipe, Mehta and Rhee, 2014). Even if all LDCs could simultaneously expand their manufacturing sectors to this peak level in the next 15 years, it would fall far short of the employment needed for poverty eradication. Equally, while extractive industries have played a central role in economic growth in many LDCs, their direct contribution to employment creation is limited, giving rise to a process of jobless growth (Ancharaz, 2011; UNCTAD, 2013) unless the rents are harnessed for inclusive development.

Hence, rural development in the broader sense will be critical to poverty eradication and improved living standards, not only in rural areas, but also in towns and cities, by limiting "push" pressures for rural-urban migration. Research has confirmed that rural growth reduces poverty more than urban growth (Wodon, 1999), as does movement of labour from agriculture to rural non-farm employment and to smaller towns rather than to large cities (Christiaensen and Todo, 2014).

Manufacturing alone will be insufficient to eradicate poverty.

Rural development is critical to poverty eradication and improved living standards in urban as well as rural areas.

...and rural-urban interactions are critical to the development process, particularly in its earliest stages.

Sustainable development and

poverty eradication require both rural and urban development...

The ideal is therefore a balanced process of urban and rural development, allowing an upward convergence of the lowest incomes in rural and urban areas. By creating the conditions for a rural-urban migration process driven primarily by choice rather than necessity, this would benefit people in both rural and urban areas, and not least those who move between them.

It is also important, particularly in LDCs, to move beyond the convention of a simple urban-rural dichotomy. Aside from the often blurred distinction between rural and urban areas (see box 1.2), there are very considerable differences between rural areas themselves. Since linkages with urban markets play a key role in rural development opportunities, a critical dimension is distance from, and transport connections with, towns and cities. Four broad categories of rural economies can be distinguished:

- Peri-urban areas, within daily commuting distance of a town or city;
- Intermediate rural areas, beyond commuting distance but with regular trade links to urban areas;
- Remote areas, with only occasional links; and
- Isolated areas, where connections with urban areas are minimal.

Box 1.2. Defining "rural" and "urban"

The distinction between rural and urban areas is less obvious than it might appear. The only (nearly) standardized definition is that of OECD, which defines a rural area as one with population density of less than 150 per km². Even here, however, a much higher threshold (500 per km²) is used for Japan, and individual member countries use different definitions (including other criteria, such as size of population, commuting intensity and the share of agriculture in production). The European Union's (EU) EUROSTAT has proposed, but not adopted, a higher population density threshold of 200 per km².

OECD's different threshold for Japan highlights the problem of a standardized definition. In a developed country, an area with a population density of 300 per km² might well be a prosperous suburb of a major city, with large houses set in their own grounds. In an LDC, it is more likely to be composed of farmsteads of two hectares, each housing a family of six, 20 km from the nearest town. It would clearly be as inappropriate to classify the former as rural as it would to classify the latter as urban. In some LDCs, the average reported rural population density (approximated as rural population divided by total land area) is far above the 200-per-km² threshold (800 in Bangladesh, 360 in Burundi, 353 in Rwanda and 290 in Comoros).

The Global Rural-Urban Mapping Project (GRUMP) of the United States National Aeronautics and Space Administration (NASA), hosted by Columbia University, takes a different approach, seeking to create internationally comparable measures of rurality by merging satellite images showing population agglomerations with census data. However, its reliability in some LDCs may be limited by its reliance in part on observations of light at night.

In view of these factors, the United Nations Department of Economic and Social Affairs (UN/DESA), responsible for the United Nations work on population and demographics, uses national criteria to demarcate urban and rural areas. In general, these define rural areas as everywhere except urban areas, the latter being defined on the basis of size; as designated administrative centres; or as civil divisions meeting specified criteria (e.g. type of local government, number of inhabitants and/or proportion of population engaged in agriculture).

This inevitably gives rise to significant variations in definitions between countries. Among LDCs, the most inclusive definitions of urban areas are those used by Equatorial Guinea (district centres and localities with 300 dwellings and/or 1,500 inhabitants), Ethiopia and Liberia (localities with at least 2,000 inhabitants). Cambodia also has a threshold size of 2,000, but with additional criteria of population density and agricultural employment. Sudan and Zambia have a threshold of 5,000 inhabitants, and Senegal of 10,000. Most other LDCs for which information is available rely on legal or administrative definitions, the most restrictive being Burundi, which includes only the commune of Bujumbura, the capital (UN/DESA, 2013, table 6, technical notes).

These variations in definitions should be borne in mind when interpreting rural and urban data provided in this Report (and elsewhere). Beyond issues of consistency between countries, they suggest that some smaller and newer urban settlements are likely to be incorrectly defined (from an economic standpoint) as rural. This means on the one hand that rural population figures will be somewhat overstated, and on the other hand that rural-urban differences will be somewhat understated.

Source: UNECE et al. (2007); UN/DESA (2013); Global Rural-Urban Mapping Project (GRUMP), Version 1, http://sedac.ciesin. columbia.edu/data/collection/grump-v1.

The ideal is a balanced process of urban and rural development, allowing an upward convergence of incomes.

A critical dimension of differences among rural areas is distance from towns and cities. It should be emphasized that this is a conceptual distinction rather than a clearly defined classification, each term corresponding to a broadly defined range along a spectrum, with at best weakly defined boundaries. As highlighted in map 1.1, travelling times to the nearest substantial town can be very considerable even in relatively small LDCs with moderate population density such as Senegal, and still more so in larger and more sparsely inhabited LDCs such as Madagascar and Mali.

The extent of urban economic influence also depends on the size, nature and connectedness of the urban area concerned. A broad distinction can be made between large, highly urbanized cities and smaller towns located within rural regions (Haggblade, Hazell and Reardon, 2007a, figure 1.3). The former generally have large economies with relatively strong outward connections, acting as national or subnational hubs. Rural towns are generally much smaller and less connected, limiting their role as a source of demand, but act as local hubs connecting the surrounding rural areas and as stepping stones to larger urban markets, so that their economies are much more defined by their relationship with the surrounding rural area.

This categorization of rural areas by proximity to towns and cities may be seen as broadly reflecting the stages of growth of the rural non-farm economy (RNFE) described by Haggblade, Hazell and Reardon, (2007b, pp. 390–392) (table 1.2). The first stage is characterized by high rural-urban transport costs, resulting in rural-led growth but low agricultural and rural non-farm (RNF) productivity. Isolated and remote areas are generally at the beginning of this stage (1a). Intermediate areas, with regular urban trade, may hope to enter stage 1b, with rising productivity; and peri-urban economies to reach stage 2, with higher productivity and primarily urban- or export-led growth.

Since the primary determinants of the urban proximity categories are travel time and cost, given available transport options, the categorization of rural locations may be expected to change over time,⁵ as rural transport is improved and new local hubs emerge. This process, and the corresponding opening of local rural economies and progression through the stages of RNFE growth, represents a key dimension of the post-2015 context for rural development.

Clearly, other aspects of local specificity are also very important, including land access, distribution and tenure systems (including landlessness and plot

Table 1.2. Urban proximity and stages of RNFE growth									
Proximity category	Relationship with town/city	Stage of RNFE growth	Rural-urban transport time/cost	Productivity					
				Agriculture	RNFE activity				
Peri-urban	Within commuting distance	Stage 2: urban/ export-led	Low	High	High				
Intermediate	Regular trade	Stage 1b: rural-led,	Moderate	Madarata	Moderate				
Remote Occasional trade		higher productivity	Moderate	Moderate	Moderate				
Isolated	Minimal contact	Stage 1a: rural-led, low productivity	High	Low	Low				
Source: columns 1-2, see text; columns 3-6, Haggblade, Hazell and Reardon (2007b), table 16.4.									

The extent of urban economic influence depends on the size, nature and connectedness of the urban area.

Remote and isolated areas are generally in the first stage of economic transformation, peri-urban areas at a more advanced stage.



Map 1.1. Travel time to nearest city: Mali, Madagascar and Senegal

Source: Losch, Fréguin-Gresh and White (2012).

sizes); agroecological conditions (climate, soil type and quality, hydrology, etc.); location (e.g. proximity to coasts, lakes and rivers); terrain (e.g. mountainous areas, river deltas); vegetation (desert, semi-desert, scrub, savannah, brush, forest, mangrove, etc.); and population density. Many of these factors are interrelated, and all unquestionably have major implications for both agricultural and non-farm potential. However, while it is important to tailor policies and development approaches to the nature of a particular rural area in all these dimensions, it far exceeds the scope of this Report to address all of these contexts systematically.

Women represent about 50 per cent of the agricultural labour force overall, but with wide variations among countries.

Patterns of rural-urban and international migration are genderspecific, but gender patterns differ between countries.

D. The gender dimension

Women represent about 50 per cent of the agricultural labour force of the LDCs. This share is fairly consistent across the different LDC geographical groups, but slightly higher overall in African LDCs and Haiti than in island and Asian LDCs (table 1.3).

The regional averages mask wide variations among countries (Chapter 4, Annex table 4.1), ranging from 36 per cent in Mali to above 60 per cent in Lesotho, Mozambique and Sierra Leone among the African LDCs, and from 27 per cent in Kiribati to more than 50 per cent in Comoros and Sao Tome and Principe among the island LDCs. In the Asian LDCs, the share ranges from 34 per cent in Bhutan to more than 50 per cent in Bangladesh, Cambodia and Lao People's Democratic Republic.

There has been a slight increase in the proportion of women in agriculture across all LDC geographical groups, indicating a process of "feminization" of agriculture (Lastarria-Cornhiel, 2006; Deere, 2005). This reflects a number of factors, including migration, conflict, male labour mobility out of agriculture, and increased female participation in the labour force (including as farmers on their own account and as unpaid family workers).

Patterns of migration are gender-specific, at both the domestic (rural-urban migration) and international levels, but gender patterns vary markedly between countries.⁶ Domestic rural-urban migration generally exhibits a bias towards women in countries with rapidly expanding "female-intensive" manufacturing, such as clothing or light assembly manufacturing (e.g. Bangladesh and Cambodia), but towards men where new employment is generated mainly in extractive sectors (e.g. Angola).

In the LDCs as a group, about 78 per cent of men and 61 per cent of women (aged 15+) are employed (table 1.4). The aggregate figure masks wide variations across regions.

Table 1.3. Female share of the agricultural labour force												
	Labour force											
		Toi (Thous	tal ands)		Share in agriculture (Percentage of total)				Female share of agricultural labour force (Percentage)			
	1980	1995	2010	2014	1980	1995	2010	2014	1980	1995	2010	2014
LDCs (total)	161 032	242 811	368 329	410 983	79	73	66	64	46	47	49	50
African LDCs and Haiti	92 854	142 046	227 337	258 984	82	78	71	69	47	48	49	50
Asian LDCs	67 619	99 936	139 816	150 690	75	66	57	54	43	44	48	49
Island LDCs	559	829	1 176	1 309	76	72	66	64	46	45	47	48

Source: FAO, FAOSTAT, Population Statistics (http://faostat3.fao.org/home/E) (accessed May 2015).

Note: The female share of the agricultural labour force is calculated as the total number of women economically active in agriculture divided by the total population economically active in agriculture.

Table 1.4. Employment to population ratio, aged 15+, in LDCs, 2000 and 2014(Per cent)										
	Ма	Male Female								
	2000	2014p	2000	2014p						
LDCs	78.7	78.3	59.6	61.5						
African LDCs and Haiti	77.1	77.6	62.8	65.1						
Asian LDCs	80.6	79.4	55.5	56.1						
Island LDCs	73.7	74.8	37.4	40.6						
Source: UNCTAD secretariat calc population ratio by sex a Notes: Data are unavailable for l	culations, based on data from and age group (http://www.ilo Dibouti, Kiribati, Sao Tome ar	ILO, Global Employment Tr org/legacy/english/get/20	rends 2014, supporting da 14/GET_EPR.xlsx) (access) South Sudan, Timor-Les	ata set: Employment-to- sed May 2015).						

Consequently, data for island LDCs are based on only two countries, Comoros and Solomon Islands. p: projected.

Agriculture remains the most important source of employment for women in all the LDC geographical and structural groups. Nearly three quarters of employed women in LDCs work in agriculture overall (table 1.5 and Annex table 4.2), about 71 per cent in the Africa and Haiti group, and 77 per cent in Asian LDCs, but only 59 per cent in the two island LDCs for which data are available (Comoros and Solomon Islands).

Agriculture is the most important source of employment for women in all LDC geographical groups.

E. The SDGs and the rural development imperative

Achieving the SDGs will be particularly demanding in rural areas of LDCs, where shortfalls in human development are much greater than in urban areas. Typically, the proportion of people below the national poverty line in rural areas is around double that in urban areas, and the average income shortfall relative to the poverty line is around 20 per cent greater (chart 1.10 (a) and (b)). Contrary to the global trend towards urbanization of poverty (Ravallion, Chen and Sangraula, 2007), rural-urban poverty differences have also widened in two thirds of the LDCs for which data are available. Eradicating poverty will thus require much greater increases in incomes in rural than in urban areas.

The scale of the increase in incomes required for the poorest households is enormous. Losch, Fréguin-Gresh and White (2012, table 3.5, p. 104), for example, report the fifth percentile income (that is, the income of households 5 per cent from the bottom of the distribution) in 16 selected rural areas of three African LDCs (Madagascar, Mali and Senegal). These range from \$50 per person per year to \$182 per person per year at PPP, equivalent to \$0.09–\$0.50 per day. In all four regions in Mali, and four of six in Senegal, they are below \$0.22 per day. Reducing extreme poverty even to 5 per cent in these areas by

Poverty is both twice as widespread in rural areas of LDCs as in urban areas, and deeper.

Table 1.5. Share of employment by sector and sex, in LDCs, 2000 and 2014(Per cent)												
		Agric	ulture		Industry				Services			
	Male Female		М	Male Female			Male		Female			
	2000	2014p	2000	2014p	2000	2014p	2000	2014p	2000	2014p	2000	2014p
LDCs	66.5	57.5	76.6	73.0	9.1	12.5	5.8	6.2	24.4	30.0	17.7	20.8
African LDCs and Haiti	74.2	68.4	76.5	70.8	6.3	8.7	3.9	5.1	19.5	22.9	19.6	24.1
Asian LDCs	57.1	41.8	76.8	76.9	12.5	18.0	8.6	8.1	30.3	40.2	14.7	15.1
Island LDCs	57.7	56.3	61.1	58.6	13	13.8	6.6	7.8	29.3	29.9	32.3	33.6

Source: ILO, Global Employment Trends 2014, supporting data sets: Share of employment by sector and sex (http://www.ilo.org/legacy/ english/get/2014/GET_sector_share.xlsx) (accessed 4 May 2015). LDC aggregations by UNCTAD.

Note: Data are unavailable for Djibouti, Kiribati, Sao Tome and Principe, Sudan (Former), South Sudan, Timor-Leste, Tuvalu and Vanuatu. Consequently, data for island LDCs are based on only two countries, Comoros and Solomon Islands.



Chart 1.10. LDCs: Urban and rural shortfalls from selected SDG targets

Chart 1.10 (contd.)



Sources:(a)-(e): World Bank, World Development Indicators database (http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators), accessed January 2015.

(f): Scheil-Adlung (2015), Statistical Annex, pp 45-51. The dotted lines represent the SDG target level (70).

(g)-(h): UNICEF, Survey Data on Primary Net Attendance Rate (http://www.data.unicef.org/education/primary) and Survey Data on Secondary Net Attendance Rate (http://www.data.unicef.org/education/secondary).

Chart 1.11. Projected increase in rural working-age population (age 15-59) in LDCs, 2013-2030 (Per cent) 100 80 60 Percentage 40 20 0 Gambia Ethiopia Eritrea Jganda Senegal Sudan Benin Liberia Guinea Vanuatu Mali Eq Guinea Comoros Angola Somalia ozambique Afghanistan ladagascar rkina Faso Tanzania Fimor-Leste Diibouti non Islands Rwanda Sierra Leone and Principe Mauritania Ben Sudar Yemer African Rep Bissa oodia esotr of the Cor Bhutan gladest Dem. uinea-5 -20 Rep Ben People Dem. Ctd. Lao Rural population increase E Demographic change -40

Sources: UNCTAD secretariat calculations, based on UN/DESA, World Urbanization Prospects: the 2014 revision (http://esa.un.org/unpd/wup/CD-ROM/), Files 4 and 5; UN/DESA, Demographic Yearbook 2013 (accessed January 2015).

Notes: "Rural population increase" represents the projected overall increase in rural population. "Demographic change" represents the additional (positive or negative) change in the population within the 15–59 age group due to changes in age composition (assuming that the proportion of the rural population aged 15–59 years is equal to the national average).

2030 would require raising these incomes to the 1.25-per-day poverty line — that is, by a factor of 6 to 14.

This challenge will be further increased by rapid growth of the rural workforce in most LDCs over the next 15 years, as a result of rural population growth combined with (past and continued) declines in birth and child mortality rates. The rural working-age population is expected to increase by 20–50 per cent in most LDCs, by 50–70 per cent in six, and by 90 per cent in one (Niger), while only five (Bangladesh, Bhutan, Haiti, Myanmar and Tuvalu) are expected to experience a reduction (chart 1.11). Eradicating poverty will require matching increases in economic opportunities with incomes above the poverty line.

As shown in chart 1.10 (c)-(h), the shortfalls from the standards set by other SDGs, in water, sanitation, electricity, health and education, are also much greater in rural than in urban areas. Typically, rural inhabitants are 50 per cent more likely than their urban counterparts not to have access to sanitation or to attend secondary school, twice as likely not to have access to electricity or to attend primary school, and more than four times as likely not to have access to clean water. On average (based on the median figures shown in chart 1.10), meeting the SDGs in LDCs would mean 45 per cent more rural children attending primary school and four times as many attending secondary school; and 70 per cent more rural inhabitants having access to an improved water source, 250 per cent more to sanitation, and 10 times as many to electricity. This would require a quantum leap in infrastructure investment in rural areas of LDCs: Access to water needs to increase twice as fast as in 2011–2012, access to electricity four times as fast, and access to sanitation six times as fast (chart 1.12).

The challenge of rural poverty eradication will be further increased by growth of the rural workforce.

Meeting the SDGs will require a quantum leap in infrastructure investment in rural areas of LDCs.





Sources: World Bank, World Development Indicators Database (http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=worlddevelopment-indicators) (accessed July 2015), and UNCTAD secretariat estimates.

Note: The 2015–2030 figures represent the number of people in rural areas of LDCs who would need to gain access to water, sanitation and electricity during this period for universal access to be achieved by 2030, based on UN/DESA projections of rural population.

Again, agriculture plays a particularly important role. Agricultural growth, rather than overall economic growth, has been found to be the primary driver of poverty reduction at the national level, particularly in agrarian-based economies (Mellor, 1999): Its poverty-reducing effect is 1.6 times that of industrial growth, and 3 times that of growth in the services sector (Christiaensen and Demery, 2007). Critically, in the context of poverty eradication, its relative impact is still stronger at lower poverty lines: 3–4 times that of non-agricultural growth at a poverty line of \$1 per person per day (Christiaensen, Demery and Khul, 2010).

Agriculture is also crucial as a source both of staple foods and of the dietary diversity essential to adequate micronutrient intakes — which are in turn essential to food security and nutrition — and of medicinal plants. Appropriate agricultural upgrading can also reduce numerous major health risks from foodborne pathogens and toxins, animal- and vector-borne diseases, water pollution and exposure to agrochemicals; and increased productivity can release (mainly women's) time for childcare and health-related activities such as food preparation (Asenso-Okyere et al., 2011). Agriculture thus plays an especially vital role in the virtuous circle of economic and human development described in UNCTAD (2014), Chapter 3. Agriculture is important as a source of poverty reduction, and essential to food security and nutrition.

F. Sustainable poverty eradication and poverty-oriented structural transformation

The massive acceleration in rural development needed to achieve the SDGs signals a need for a major shift in the goals of development strategies. Under the current economic growth model, poverty reduction has been limited in most LDCs, as shown in chart 1.2; as noted above, poverty has in most cases declined even more slowly in rural than in urban areas; and infrastructure investment has been a fraction of that needed to achieve the SDGs.

At the centre of development strategies for economically sustainable poverty eradication is structural transformation, combining increased productivity within sectors with a shift of productive resources between sectors and activities, from those with lower productivity to those with higher productivity. Its absence has been a key factor in the inability of most LDCs to meet most MDG targets (UNCTAD, 2014, Chapter 4).

While it is unlikely that poverty can be eradicated entirely without the use of income transfers to the last few poor households in order to raise them above the poverty line (in the manner of benefits systems in developed countries), the sheer scale of poverty in most LDCs means that such transfers cannot be the main driver of poverty reduction. Besides the issues of economic and financial sustainability, the logistical problems and costs would be formidable: Financial transfers on an adequate scale to eradicate poverty would require countries with very limited public resources and administrative infrastructure to make payments, regularly and consistently, to hundreds of millions of people, many of them in the most remote, inaccessible and in some cases conflict-affected areas. The logistical challenges of such transfers should be progressively eased in the coming years through mobile phone payment ("M-money") systems, as access to mobile phones becomes wider, but those in greatest need are likely to be reached the last. Even then, it would be essential to reduce poverty sufficiently to limit the scale of the transfers required to a feasible level.

Hence, the main driver of poverty eradication will need to be increases in primary incomes, from employment or other economic activity. To be economically sustainable, these incomes must be matched by higher productivity, which will require structural transformation on a considerable scale.

Sustainable poverty eradication, however, requires a particular kind of *poverty-oriented structural transformation (POST).* It must simultaneously:

- Increase the overall level of labour productivity, as a basis for a sustained development process;
- Provide productive employment and economic opportunities for the entire economically active population;
- Increase the lowest levels of labour productivity to a level sufficient to generate an income above the poverty line, even for those households with the highest dependency ratios; and
- Ensure that such increases in productivity are fully translated into higher household incomes.

This requires the minimum level of labour productivity to be sufficient to generate an income level above the poverty line even for those households with the highest proportion of dependents, taking account of the share of value added accruing to capital (for those in employment) and taxation. For a poverty

At the centre of development strategies for economically sustainable poverty eradication is structural transformation.

The sheer scale of poverty in most LDCs means that income transfers cannot be the main driver of poverty eradication.

Economically sustainable poverty eradication requires povertyoriented structural transformation, to generate incomes above the poverty line, matched by productivity... line of \$1.25, this is likely to be at least \$10 per day at PPP. A mathematical presentation of the level of productivity required for poverty eradication in the POST context is provided in box 1.3.

Ideally, POST should also ensure a sufficient increase in the tax base to allow public revenues at the very least to meet the recurrent costs of the social provision needed to reach the SDGs (e.g. health-service and education provision, infrastructure maintenance and social protection) and the costs of effective governance and economic and social policy, without the tax burden pushing the poorest households below the poverty line.

..and ideally to increase the tax base sufficiently to finance the recurrent costs of social provision.

While such a POST process is essential to fulfilling the 2030 Agenda for Sustainable Development, it will be a formidable challenge — and nowhere more so than in rural areas of LDCs, where productivity and incomes are lowest.

Box 1.3. Labour productivity and economically sustainable poverty eradication

Poverty eradication means raising the lowest household per capita income to no less than the poverty line.

Minimum household income per capita \geq (poverty line).

Income can be defined as:

Household income per capita = (income per worker)*(workers per household)/(household size),

= (income per worker)/(1 + dependency ratio)

Where:

Dependency ratio = (non-workers in household)/(workers in household)

Poverty eradication thus requires:

[Minimum(income per worker)]/[1 + maximum(dependency ratio)] ≥ (poverty line)

or

 $Minimum(income per worker) \ge (poverty line)^*[1 + maximum(dependency ratio)].$

In rural societies where fertility rates are relatively high and extended family households commonplace, the maximum dependency ratio is likely to be at least 3, suggesting a minimum income per worker of at least \$5 per day for a \$1.25-a-day poverty line.

If such employment is to be economically sustainable, this income must be matched by productivity. However, the minimum level of productivity required is substantially higher than the necessary level of income. For those who are self-employed, for example in the informal sector or family farming, as well as deducting the costs of inputs (e.g. seeds or fertilizers in agriculture), the cost of credit must be taken into account. For those in employment, value added per worker is divided between labour and capital (i.e. employees and employer), so that:

Labour income per worker = (value added per worker)*(labour share in value added).

Hence:

Value added per worker = (labour income per worker)/(labour share in value added).

In this context, the condition for economically sustainable poverty eradication thus becomes:

Minimum[(labour income per worker)/(labour share in value added)] ≥ (poverty line)*[1 + maximum (dependency ratio)]

or, as an approximation (assuming labour share in value added to be approximately constant):

Minimum(labour income per worker) ≥ (poverty line)*[1 + maximum(dependency ratio)] / (labour share in value added).

If the labour share in value added is 50 per cent, for example (and it will often be substantially lower), the level of labour productivity required for income to reach the poverty line is double the necessary income. In both employment and self-employment, any taxation paid on income must be added to the resulting figure. Hence the level of value added per worker in employment to sustain an income corresponding to the \$1.25-a-day poverty line is likely to be at least \$10 per day (at 2005 PPP).

G. The SDGs and opportunities for rural development

The SDGs also signal a major change in the context for development strategies.

Increased infrastructure investment will increase the availability of infrastructure and essential services...

...and can also generate a substantial increase in demand for labour and locally produced inputs and services.

Accelerated poverty reduction should increase demand for staple and higher-value foods and basic household goods and services. As well as changing the goals of development strategies, the SDGs signal a major change in the context in which they will operate, especially in rural areas. As discussed in UNCTAD (2014, pp. 116–117), a coherent approach to the SDGs must take account of the implications of a "post-2015 world" — that is, of the changes in national policies and donor priorities entailed by a proactive pursuit of the SDGs. This change in context implies the opportunity as well as the need for a different model of development.

There are three main aspects to this contextual change. First, the considerable increase in infrastructure investment called for by the SDGs will have major implications for the availability of infrastructure and production factors essential to production, most notably electricity (UNCTAD, 2014, box 5, p. 133), but also water and (in the longer term) human capital. Coupled with increased potential labour productivity over time as a result of improved nutrition and health, improved transport infrastructure, increased investment in agricultural infrastructure and increased access to information and communication technologies (ICTs), this has the potential to transform the rural economic environment for both agricultural and non-agricultural production.

Second, if the additional infrastructure investment is based on labourintensive construction methods and local procurement, it can also be expected to generate a substantial increase in the demand for labour and locally produced inputs (e.g. construction materials) and services. Economic infrastructure not explicitly included in the SDGs but necessary to poverty eradication would add to this effect; and increasing access to education and health services is more likely in rural areas than in towns to entail the construction of new facilities rather than the scaling-up of existing facilities. This would provide a considerable boost to non-agricultural income opportunities over several years.

Third, the widespread and severe poverty in rural areas in most LDCs, as shown in chart 1.10 (a) and (b), means that poverty eradication would require major increases in incomes up to the \$1.25-a-day level. This has important implications for both the rate and the pattern of demand growth, in particular accelerating demand growth for those goods purchased by poor households as their incomes rise. Such goods typically include staple foods among the poorest households; higher-value foods (vegetables, vegetable oils, fruit, meat and fish), as households upgrade and diversify their diets; and basic household goods and services.

Thus, assuming that the SDGs are matched at least in part by appropriate actions nationally and internationally, this would give rise to a considerable, and very favourable, change in the context of rural economic development. Achieving rural economic transformation, and hence sustainable poverty eradication, requires development strategies to exploit to the fullest the opportunities offered by such a "post-2015 world". Equally, existing evidence and past experiences need to be interpreted carefully in the light of this changed context and the new goals of the post-2015 period.

H. Agriculture and non-agriculture: harnessing the synergies

Just as national development requires both rural and urban development, so rural development itself calls for a balanced approach to agricultural upgrading and development of the RNFE. This amounts to a structural transformation of rural economies, encompassing:

- A shift of labour from small-scale agriculture, where its marginal productivity is relatively low, to more productive activities in the RNFE (e.g. agroprocessing, trading and other services), diversifying the rural economy away from excessive reliance on agriculture;
- Increased productivity within both agriculture and the RNFE, through investment and technological upgrading; and
- A shift of productive resources within agriculture and the RNFE towards activities with higher productivity (higher-value crops and higher value added non-agricultural activities) — in effect, a structural transformation within each sector.

This requires a two-legged approach, exploiting the complementarities between agricultural upgrading and the RNFE: As discussed in UNCTAD (2014, pp. 130–131), the development of non-farm production can be an important driver of agricultural development, and vice versa (see chart 1.13); and the key to rural poverty eradication is, first, to find the means of kick-starting the

Rural development calls for a balanced approach to agricultural upgrading and development of nonfarm activities...

...exploiting the complementarities between the two sectors.



Source: Adapted from UNCTAD (2014), chart 36.

process, and second, to harness the synergies between agriculture and the RNFE to maximum effect (issues addressed in Chapter 5).

Increasing non-agricultural income is important to generate growing demand as agricultural output rises, particularly where links to urban markets are limited. Since the demand for agricultural produce is generally price inelastic, an increase in production results in a greater reduction in prices, so that the benefits accrue to consumers rather than producers (Evenson and Gollin, 2003; Minten and Barrett, 2008). Increasing income through the development of non-farm production can limit this effect by generating a matching increase in demand, including for higher-value crops, as households upgrade and diversify their diets. The development of agricultural processing and packaging can also facilitate access to urban markets by making agricultural produce more readily transportable.

Equally, agricultural upgrading can support the development of non-farm production in rural areas both by increasing demand (for agricultural inputs and consumer goods) and by stimulating downstream activities, such as processing and packaging of agricultural produce (de Janvry and Sadoulet, 2009; Lanjouw and Lanjouw, 1995; 2001). Demand linkages are of particular importance in generating additional non-agricultural employment (Mellor, 1999; Thirtle, Lin and Piesse, 2003; Tiffin and Irz, 2006). This circular relationship between agricultural and the RNFE, each generating demand for the other's outputs, gives rise to a multiplier effect, typically on the order of 1.6–1.8 in Asia and 1.3–1.5 in sub-Saharan Africa (Haggblade, Hazell and Dorosh, 2007). This is potentially a vital tool for rural poverty eradication.

Another key linkage is investment. In the absence of functioning credit markets in most rural areas in LDCs, investment — whether in agriculture or the RNFE — is dependent primarily on surplus income. This provides an additional link between agricultural upgrading and non-agricultural activities: Farm households with surplus labour but limited financial resources can earn additional income from off-farm activities to invest in purchased inputs, and non-farm activities provide investment opportunities for farm households with surplus income.

Complementarities in employment are equally important. Agricultural labour demand is highly seasonal, so that there may be surplus labour for much of the year even where agricultural production is constrained by labour shortages at peak (harvest and planting) seasons. Non-farm activities can thus provide additional incomes in seasons of lower labour demand without pushing up wages, as well as absorbing surplus labour shed by small farms as productivity is increased. At the same time, given the time lags in developing a viable non-farm sector, small farms provide a means of subsistence for household members until they are able to move into non-agricultural activities or during the start-up phase of non-farm enterprises (Hazell et al., 2007).

As in the context of rural-urban migration, the key to successful RNFE development is to shift from a process driven by "push" factors — primarily, the necessity of supplementing inadequate farm incomes — to one driven by the "pull" of new and economically attractive non-farm opportunities. "Push" factors result in a proliferation of suppliers in activities with very low entry barriers (minimal need for capital, education, skills, etc.), which are generally also characterized by low incomes and productivity; and the resulting oversupply depresses incomes still further. Successful rural development simultaneously reduces "push" pressures, by raising agricultural incomes, while generating more productive non-farm income opportunities through the creation of viable non-farm enterprises.

Each sector can also provide surplus

Increasing non-farm income

generates demand for agricultural

produce, as does increasing

agricultural income for non-farm

goods and services.

income for investment in the other.

Non-farm activities can provide additional incomes in seasons of low agricultural labour demand, without worsening seasonal labour shortages.

The key to successful development of non-farm activities is to shift from a process driven by "push" factors to one driven by "pull" factors. Within the agricultural sector, two types of crop are of particular significance to farm/non-farm synergies in the post-2015 context:

- Maintaining a reliable supply of staple food crops is essential both to increasing production of higher-value crops and to promoting RNFE activities: Households will be deterred from shifting their own production to crops for sale or non-agricultural goods and services unless they are confident that there will be a reliable supply of staple foods. This means both maintaining an adequate supply and ensuring functioning markets.
- In the context of global efforts to tackle climate change, there may be considerable potential for the development of biofuel crops, providing opportunities both for higher-value agricultural production and for local processing, as well as limiting carbon emissions and reducing the need for imported fossil fuels.

I. Summary and conclusions

In summary:

- The LDCs are the battleground on which the 2030 Agenda will be won or lost: This is where shortfalls from the SDGs are greatest and improving most slowly, and where the barriers to further progress are highest.
- Rural development is the key: Most people in most LDCs live in rural areas, and shortfalls from the SDG targets are much greater than in urban areas.
- Achieving the SDGs in rural areas of LDCs will require a quantum leap in the rate of progress compared with the MDG period (2000–2015).
- The 2030 Agenda entails both new goals and a new context, providing an opportunity as well as a need for a new approach to rural development.
- Economically sustainable poverty eradication requires a process of poverty-oriented structural transformation, ensuring equal productive opportunities for all, with incomes above the poverty line and productivity to match.
- In rural areas, such a process requires exploiting to the fullest the synergies between agriculture and rural non-farm economies.

The remainder of the Report investigates these issues further. Chapter 2 focuses on increasing agricultural productivity, Chapter 3 on rural economic diversification and RNFE development, and Chapter 4 on the gender dimension of rural development. Chapter 5 draws on these chapters to set out policy proposals for rural development in LDCs in the context of the 2030 Agenda.

Reliable supplies of staple foods are essential, and there may be considerable potential for the development of biofuel crops.

Notes

- 1 At a late stage in the preparation of this Report, what had previously been termed the "post-2015 development agenda" was adopted under the title the 2030 Agenda for Sustainable Development.
- 2 As this Report was being finalized for printing, the poverty line of \$1.25 per person per day at 2005 PPP was updated to \$1.90 per person per day at 2011 PPP.
- 3 The poverty gap combines the extent and the depth of poverty. It can most easily be defined as the proportion of people below the poverty line multiplied by their average income shortfall relative to the poverty line.
- 4 These projections predate the 2030 Agenda for Sustainable Development, and will be influenced by progress towards the SDGs. Reduced infant, child and maternal mortality, and increased access to reproductive health services, will have direct effects on population growth; and increased access to water, sanitation, health services and education and improved nutrition will have indirect effects, through health, mortality and fertility behaviour. However, since these effects will reduce both fertility and mortality, the net effect is ambiguous. Faster development and infrastructure provision in rural areas relative to urban areas would more clearly imply a slowdown in the rate of urbanization.
- 5 Travel times and costs for some localities may well vary seasonally, for example where travel is dependent on unpaved roads or water transport, which are subject to seasonal variations.
- 6 While female migration has increased in recent years (Ghosh, 2009), fewer women than men migrate internationally from LDCs on average, due to the persistence of gender roles that assign primary responsibility for childcare and household tasks to women (UNCTAD, 2012). Migration flows from Africa, South Asia and the Middle East tend to be more male-dominated, while flows from East Asia and the Pacific, Europe and Central Asia, and Latin America and the Caribbean tend to be more female-dominated. The intensity and stability of those flows, however, vary both between destination countries and over time (Guzmán, 2006).

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