



THE LEAST DEVELOPED COUNTRIES REPORT 2015

Transforming Rural Economies

OVERVIEW



UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

THE LEAST DEVELOPED COUNTRIES REPORT 2015

Transforming Rural Economies

OVERVIEW



UNITED NATIONS
New York and Geneva, 2015

NOTE

Symbols of United Nations documents are composed of capital letters with figures. Mention of such a symbol indicates a reference to a United Nations document.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

All references to dollars (\$) are to United States dollars. A “billion” means one thousand million.

Material in this publication may be freely quoted or reprinted, but acknowledgement is requested, together with a reference to the document number. A copy of the publication containing the quotation or reprint should be sent to the UNCTAD secretariat.

The Overview contained herein is also issued as part of *The Least Developed Countries Report 2015* (UNCTAD/LDC/2015), sales no. E.15.II.D.7).

UNCTAD/LDC/2015 (Overview)

This Overview can also be found on the Internet,
in all six official languages of the United Nations at www.unctad.org/ldcr

Recent trends and outlook for LDCs

Economic growth in the least developed countries (LDCs) has slowed since 2012, when impressive performance by fuel-exporting countries took the growth rate of their real gross domestic product (GDP) to a post-financial crisis peak of 7.2 per cent. In 2014, less favourable external conditions (compounded by the impact of the Ebola outbreak in Guinea, Liberia and Sierra Leone) contributed to a further deterioration in their economic performance. The average growth rate of LDCs as a group was 5.5 per cent in 2014, with very similar average rates across all geographical subgroups. This was a reduction from 6.1 per cent in 2013 and well below the 2002–2008 average of 7.4 per cent, but significantly stronger than the 4.4 per cent growth recorded by other developing countries (ODCs).

The LDCs' collective current account deficit increased to a record level of \$49.4 billion in 2014, 40 per cent higher than in 2013 and 87 per cent higher than in 2012, the increase originating primarily in the African LDCs and Haiti. The merchandise trade deficit nearly tripled to \$33.6 billion in 2014, as imports rose by \$20 billion and exports fell by \$1.9 billion.

Across LDCs as a whole, gross fixed capital formation (GFCF) increased to 26.3 per cent of GDP in 2013. This is not only higher than the 2012 level and the 2002–2008 average, but also, more importantly, slightly above the 25-per-cent level deemed necessary to sustain long-term growth. In island LDCs, however, GFCF recovered only partly from its slight decline in 2012, and stayed well below that threshold level (though also well above the 2002–2008 average), at 20.3 per cent. Savings rates remained stable overall at 19 per cent of GDP, a decline in the African LDCs and Haiti being offset by increases in the Asian and island LDCs. The shortfall relative to the investment rate resulted in a resource gap of 7.2 per cent of GDP, signifying continuing dependence on external resources.

The external resource gap was financed from a combination of official sources (mostly official development assistance (ODA)) and private sources (mostly migrants' remittances and foreign direct investment (FDI)). ODA inflows rose by 2 per cent to \$44.2 billion in 2013, accounting for 93 per cent of total official capital flows, but bilateral ODA flows are estimated to have fallen by 16 per cent in real terms in 2014. Remittance flows grew by 7.1 per cent to \$35.8 billion in 2014, with increases in all three geographical subgroups. FDI flows rose by 4.1 per cent to \$23.2 billion. While FDI flows to the African LDCs

and Haiti increased by \$1 billion, recovering half the reduction experienced in 2013, those to Asian LDCs fell marginally, and those to island LDCs fell by a further 31 per cent to less than one fifth of their 2010 level.

The slowdown in developing economies is expected to continue in 2015, partly reflecting further falls in commodity prices, while economic performance in developed economies is expected to improve. Against this background, growth in LDCs as a group is projected at 5.2 per cent in 2015, continuing the gradual slowdown experienced since 2012 but remaining above the projected rate for developing countries as a whole (4.4 per cent).

The Post-2015 Development Agenda and the rural development imperative

The Post-2015 Development Agenda represents a paradigm shift in the development agenda, establishing, for the first time, a collectively agreed set of universal goals for an inclusive and sustainable global development process. It also represents a step change in ambition, which implies a new and different approach to development and development policies, especially in the LDCs.

The present human rights framework places responsibility for the “progressive realization” of economic and social rights on national Governments – which are supposed to act within the means available to them – alongside the international dimension. The Sustainable Development Goals (SDGs), by contrast, represent two fundamental changes as compared with the existing framework. They constitute an acceptance by the global community as a whole of collective responsibility for the achievement of economic and social rights by the world population as a whole. They also set a date for the realization of these rights (2030). These two shifts are mutually interdependent: Collective responsibility provides the means of overcoming national resource constraints within the given time frame.

The absolute nature of the SDGs – eradicating human development shortfalls rather than merely reducing them – has critically important implications. First, it requires an enormous acceleration in the rate of progress: Recent estimates suggest that the “global consumption floor” (in principle, the consumption per capita of the poorest household in the world) has stagnated for 20–30 years, but must double in the next 15 years if poverty is to be eradicated. Second, it

implies a fundamental shift in focus, towards areas of greatest need. This, in effect, means the least developed countries, because this is where poverty is systematically highest, where it is falling most slowly and where the obstacles are greatest. The LDCs are, quite simply, the battleground on which the Post-2015 Development Agenda will be won or lost.

Since the majority of the LDCs' population live and work in rural areas, rural development is the main driver of poverty reduction and will be essential to achieving the SDGs in these countries; but this does not mean that urban development can be ignored. Sustainable development and poverty eradication clearly require both; and, even for rural economies, the relationship with urban areas is a key consideration. Many rural households depend on urban markets or remittances from urban migrants. Equally, rural-urban migration is an important for urban economies, at best providing an urban workforce for industrial development, but at worst – when it results from falling rural economies – fuelling unsustainable urbanization, increasing urban poverty and exacerbating strains on social infrastructure.

But there is a limit to the potential of urban areas to drive growth. There is a limit to how quickly cities can grow sustainably; the peak level of manufacturing employment (i.e. the maximum contribution of manufacturing to total employment along the process of structural transformation) has been declining, even in the most successful developing countries. Moreover, extractive industries create little employment. National economies depend more than ever on a balanced process of rural and urban development, allowing an upward convergence of minimum income levels in rural and urban areas, and a rural-urban migration process driven by choice rather than necessity.

Rural areas vary very widely across LDCs. A key dimension of this variation is proximity to urban areas (and the size, nature and connectedness of the nearest town or city), which is a major determinant of the opportunities and potential for rural development. While peri-urban areas have good access to urban markets, and intermediate areas have some access, this is more limited for remote and isolated areas – particularly in LDCs with limited transport infrastructure. As infrastructure improves – which it must do if the SDGs are to be fulfilled – this will result in a progressive economic opening of the more remote rural areas; and ensuring that their economies are ready to withstand the shock and to exploit the opportunities that come with such opening will be crucial to successful rural development.

Rural development is of particular importance in LDCs. First, more than two thirds of their total population lives in rural areas, and in only six LDCs is the proportion below 50 per cent. This pattern is not expected to change substantially by 2030: Rural population growth will remain much faster, and the rural share of the population will remain much higher, than in ODCs throughout the SDG period (2015–2030).

Second, agriculture plays a crucial role in all LDC economies, accounting for 60 per cent of total employment and 25 per cent of value added. It also represents a major source of export revenues, except for LDCs specialized in exporting fuels and manufactures and some LDCs specialized in mineral exports. Food accounts for 18 per cent of imports, and the trade deficit in food products of LDCs as a whole has widened dramatically from \$2 billion in 1995–1997 to \$21.8 billion in 2011–2013, largely as a result of increasing deficits in fuel and manufactures exporters.

Third, shortfalls in human development are much greater in rural than in urban areas. The proportion of people below the national poverty line in rural areas is generally around double that in urban areas, and the average income shortfall relative to the poverty line is around 20 per cent greater. The challenge of eliminating rural poverty will be further heightened by rapid growth of the rural workforce in most LDCs over the next 15 years. Agriculture has a particularly important role, both as the primary driver of poverty reduction at the national level, and as a source of staple and non-staple foods.

Typically, rural people in LDCs 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. Achieving the SDGs would mean 45 per cent more rural children attending primary school and four times as many attending secondary school. It would also mean 70 per cent more rural people 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 more than twice as fast as in 2011–2012, access to electricity four times as fast and sanitation six times as fast.

Structural transformation will be central to rural poverty eradication: While income transfers will be needed to reach the last few poor households, the sheer scale of poverty in most LDCs and the logistical challenges mean that such transfers cannot be the main driver of poverty reduction. Incomes from economic activity will need to be increased; and, to be economically

sustainable, higher incomes must be matched by higher productivity. This will require both increasing productivity within sectors and a shift of productive resources between sectors and activities, from those with lower productivity to those with higher productivity.

Sustainable poverty eradication in LDCs 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 economic opportunities for the entire workforce;
- 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.

Ideally, it should also ensure a sufficient increase in the tax base to allow public revenues to meet the recurrent costs of the social provision needed to achieve the SDGs and the costs of effective governance and economic and social policy, without the tax burden pushing the poorest households below the poverty line.

As well as changing the goals of development strategies, the SDGs – assuming they are matched at least in part by appropriate actions nationally and internationally – signal a major change in the context in which they will operate, especially in rural areas. The considerable increase in infrastructure investment implied by the SDGs will have important implications for the availability of infrastructure and production factors essential to production. If this investment is based on labour-based construction and maintenance methods and local procurement of the inputs required by public works, it can also be expected to give rise to a substantial increase in the demand for labour and locally produced input goods (e.g. construction materials) and services. And accelerated poverty reduction will accelerate demand growth for those goods purchased by poor households as their incomes rise, notably staple and higher-value foods (vegetables, vegetable oils, fruit, meat and fish), and basic household goods and services.

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”.

The key to this is harnessing the synergies between agricultural upgrading and rural economic diversification through development of the rural non-farm economy (RNFE). Agricultural growth generates demand for goods and services from the non-farm sector; and the income generated by development of the non-farm sector generates demand for more and higher-value foods. This gives rise to a multiplier effect within the local economy (typically of the order of 1.6–1.8 in Asia and 1.3–1.5 in sub-Saharan Africa). Equally, increasing income in each sector provides resources for investment – essential in a context where credit is unavailable or unaffordable – and the non-farm economy can generate income opportunities for rural workers as labour is shed due to increasing agricultural productivity. The development of agricultural processing can also increase agricultural incomes by making produce more tradable, as well as generating non-farm income.

What is required is a shift from a process driven by “push” factors – the critical need to maintain a minimally adequate level of consumption – 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.

Agricultural productivity: Developments, determinants and impacts

Agricultural productivity is critical both to the well-being of the population in LDCs and to the structural transformation of their economies, playing an essential role in rural economic transformation and development and strengthening the RNFE. Increasing agricultural productivity tends to lower food prices, thereby increasing real wages in both rural and urban areas; prevents the terms of trade from turning against urban activities (a potential obstacle to structural transformation); and improves food security by increasing and stabilizing food supplies.

In the archetypal structural transformation process, increasing agricultural productivity releases labour and capital to be employed in other (in principle

more productive) sectors, while generating agricultural surpluses that provide a source of domestic demand for industrial goods and services, spurring growth in their supply. It thus increases productivity in other sectors, accelerating the development process.

Agricultural labour productivity in LDCs is much lower than in ODCs and in developed countries, and has grown more slowly, resulting in a widening international labour productivity gap. Agricultural value added per worker has grown by 2.2 per cent annually since 1991 in LDCs, compared with 4.2 per cent in ODCs and 3.9 per cent in developed countries. In 2011–2013, LDC agricultural labour productivity was 19 per cent of that in ODCs and 1.8 per cent of that in developed countries, a much wider gap than in industry or services. Given the concentration of the labour force in agriculture in LDCs, this wider productivity gap is the major cause of income divergence between LDCs and these other country groups.

In African LDCs and Haiti, agricultural labour productivity declined in the 1980s and 1990s, and has grown relatively slowly since 2000 (slightly above 1 per cent annually). This is largely a consequence of the decline and subsequent stagnation of spending on agricultural research and development (R&D), and of policies (e.g. exchange rate and trade policies) that discriminate against agriculture. In the Asian LDCs, by contrast, productivity growth picked up earlier, in the 1990s, and has risen robustly (by 3.5 per cent annually) since 2000, faster than the averages for all ODCs. The positive performance has been driven by greater investment in R&D and more favourable policies. Over the past decade, agricultural labour productivity in Asian LDCs has overtaken that of both the African and island LDCs.

Output per worker can be broken down into land productivity (yield) and the land/labour ratio. Yields have increased more strongly than labour productivity in LDCs, but have lagged behind the robust growth in ODCs since the 1980s, reaching 38 per cent of the ODC average in 2010–2012. Among LDCs, yields have grown most vigorously in Asia, more than doubling since 1980, to reach a present level 17 per cent higher than that of ODCs. In African LDCs and Haiti, performance was weaker and more varied across countries. It was especially sluggish during the 1990s, but has picked up somewhat since the turn of the century.

Increased agricultural production in LDCs since the early 1980s has come partly from extension of the cultivated area, particularly in African LDCs and Haiti and in island LDCs, with a more limited extension in Asian LDCs, similar to that in Asian ODCs. Land/labour ratios are generally lowest in Asian LDCs, but are declining most strongly in African LDCs and Haiti.

These developments have had an adverse impact on the well-being of the population and have limited the pace of poverty reduction.

Total factor productivity (TFP) growth in LDCs as a group has also historically lagged far behind that of other country groups, stagnating from the 1960s to the 1980s, but rising in the 1990s and accelerating somewhat since 2000. Asian LDCs have outperformed all other major country groups since 2000. In African LDCs and Haiti, by contrast, agricultural TFP was largely stagnant from the 1960s to 2000, and has been slower than in other country groups since then. In island LDCs, TFP has grown very slowly since the 1960s.

Agricultural labour productivity and yields have risen most strongly in manufactures exporters and mixed exporters, indicating that greater structural transformation and economic diversification are generally associated with greater improvements in agricultural productivity. This confirms the link between agricultural progress and overall economic development, and the mutual reinforcement of development in agriculture and other productive sectors.

The main factors driving (or constraining) productivity growth in agriculture in LDCs are the quantity of inputs; technology, human capital and input quality; public investment and policies; agroecological conditions and climate change; and rural diversification.

The **quantity of inputs** (land, labour, material inputs and physical capital) used is especially important in countries at earlier stages of agricultural development. LDC agriculture is generally characterized by very intensive employment of labour; extensive use of land; and very limited use of other inputs, reflecting low incomes, inadequate water supply and foreign exchange shortage. Overall use of synthetic fertilizers per hectare in LDCs is only 10 per cent of that in ODCs and 15 per cent of that in developed countries. Mechanization is similarly limited, as is irrigation, except in Asian LDCs, where use of fertilizers and machinery is also greater.

Technology affects the adaptation of plant and animal varieties to local agroecological conditions, the quality of inputs, the choice of cultivation and rearing techniques, and so forth, as well as variety yields. While public investment in agricultural R&D generates high rates of return, commitment has generally been low in LDCs, resulting in limited and volatile public spending. In African LDCs, the much greater variety of farming systems than in Asian LDCs is a further challenge to R&D appropriate to particular agroecological conditions.

Since the diffusion of innovations among producers is neither automatic nor rapid, **agricultural extension services** are an essential link between the generation of innovations by R&D and their adoption at the farm level. Poverty represents a further obstacle to the adoption of new agricultural technologies, especially in LDCs.

Human capital plays a major role in technology adoption, affecting the use and combination of inputs by farmers. Education contributes to the acquisition and assimilation of information, and to the learning, mastery and implementation of technologies.

There is increasing recognition of the importance of **public policies** to agricultural productivity, through spending on R&D, extension services and education, investment in “hard” (physical) infrastructure, “soft” (institutional) infrastructure and sectoral measures. Public investment in hard and soft infrastructure is a precondition for private investment in agriculture, while constraints on financial market development can be a substantial obstacle.

Over the long term, land productivity is weakened by underinvestment in land improvement as a result of low incomes and limited financial market development, leading to a progressive deterioration in land quality. **Climate change** is expected to exacerbate this process, resulting in a projected 18-per-cent reduction in cereal yields in low-income countries between 2000 and 2050. The resulting changes in total agricultural output in LDCs range from +5 per cent to -40 per cent, with much stronger effects in African than in Asian LDCs. This is likely to reduce labour productivity.

Rural diversification is also a key driver and facilitator of productivity growth and upgrading in agriculture. Rising off-farm incomes provide additional financing for agricultural investment and technological upgrading and boost demand growth for agricultural produce; and the development of off-farm activities increases the supply of key inputs and services for agriculture. Improved vertical coordination is critical to achieving a timely flow of productivity-enhancing inputs to farmers and of quality agricultural raw materials to agro-industry.

Rural structural transformation for sustainable poverty eradication

While the principal income source of rural households is farming, most of them engage in a range of economic activities. Motivations vary widely between households. Better-resourced households are often “entrepreneurs by choice”, pursuing opportunities to increase their incomes. Poorer households are generally “entrepreneurs by necessity”, driven to seek additional incomes by the need to sustain a minimum level of consumption, or else seeking to diversify their incomes as a means of self-insurance against high levels of risk in agriculture.

Agricultural demand for wage labour is typically limited to seasonal and casual work, and farm wages are low, reflecting an excess supply of labour due to “push” pressures. Income from rural non-farm (RNF) activities thus generally exceeds income from agricultural wage employment. Non-farm income also generally exceeds migrant remittances (with a few exceptions, such as Lesotho), contrary to conventional wisdom. With these limitations on other income sources, non-farm activities are a critical element of household income diversification strategies. Within the non-farm sector, wage income can be as important as self-employment income in African LDCs, and more so in some Asian LDCs.

Given the limitations of subsistence production and agricultural wage employment, the main route out of poverty is through some combination of market-oriented smallholder farming, non-farm activities and emigration from rural areas.

Distance from urban areas plays a key role in opportunities for non-farm activities, so that RNFE development has tended to be concentrated around towns and cities. Non-farm employment opportunities and wages are higher in peri-urban areas, while producers in more distant rural areas are disadvantaged in urban markets by the need to compete with peri-urban producers who have advantages in delivery times and costs, as well as generally greater access to services and infrastructure.

There is thus a fundamental contradiction between need and opportunity, both at an economy-wide level and among households. It is the most disadvantaged areas and households that have the greatest need for

economic diversification (since they have the least access to agricultural markets, the lowest incomes and the highest risks); but they also have the least opportunities and face the greatest obstacles to taking such opportunities (due to limited financial and human resources, infrastructure, access to inputs and ability to bear risk). Overcoming this contradiction, and ensuring that those with the greatest need for economic diversification have the means to achieve it, will be critical to rural structural transformation and sustainable poverty eradication.

Since data on non-farm activity in LDCs (and also in ODCs) are very limited, this Report provides new estimates based on raw data for nine LDCs – five in Africa and four in Asia. This confirms the general trends described above, while highlighting the variation of rural diversification and RNFE development across LDCs. Among these nine countries, RNFE development is most advanced in Bangladesh and Nepal (47–49 per cent of rural employment), and least advanced in Ethiopia and United Republic of Tanzania (11–12 per cent). However, these new data contradict the widespread view of a simple Africa/Asia dichotomy: The importance of the RNFE in rural incomes and employment is very similar across the five other countries, which span both regions (Malawi, Rwanda, Zambia, Myanmar and Yemen, with 20–28 per cent of rural employment in the RNFE).

A more detailed assessment of Bangladesh, Malawi and Nepal highlights differences in the sectoral composition of non-farm activities, the largest subsectors being manufacturing, services and construction, respectively. However, manufacturing and services are important in all three cases, each accounting for 22–42 per cent of total RNFE income in every country. There are also considerable differences between these countries in the roles of women and young people in the rural economy. While those engaged in non-farm activities have consistently higher levels of education than those in agriculture, the highest level of education is in the country with the lowest level of non-farm activity (Malawi). This suggests that education alone is insufficient to drive rural economic diversification.

The great majority of LDCs in all categories remain in the first stage of rural economic transformation, in which RNF activities are focused mainly on agriculture (though often fairly evenly divided among commerce, manufacturing and other services), and mainly informal. However, using the categorization of agriculture-based and transforming countries presented by the World Bank's *World Development Report 2008* as a proxy suggests that a small group of African and Asian LDCs – Angola, Bangladesh, Senegal and

Uganda – are in the second stage of RNF sector transformation. In this stage, rural-urban links are more important, and non-farm activities are more varied, also encompassing such activities as tourism, mining and services as well as agribusiness in commercial farming areas. Small-scale labour-intensive production in rural areas often coexists with relatively capital-intensive enterprises producing similar products in intermediate cities.

Farmers in areas of good agricultural potential and with access to markets have relatively greater opportunities to upgrade by increasing production of higher-value products, for domestic, regional and wider export markets. Product standards and non-tariff barriers can be a serious obstacle to exports: Quality management is increasingly important, but capacity for implementation and policing in LDCs is often limited. In African LDCs, however, the low level of intraregional trade points to particular potential for regional exports.

Non-farm activities can act as a driver of agricultural upgrading by providing investable resources and upstream and downstream services for agriculture, particularly in higher-value crops. RNFE income is generally the main source of cash for investment, especially in African LDCs, and is sometimes used as a substitute for collateral.

RNFE activities in the production of agricultural inputs can affect choices of crops and technologies by increasing access to input supplies and adapting them to the needs of local farmers; others, such as agroprocessing, may provide additional and/or more favourable market outlets, and increase profitability, including through contract-farming arrangements and integration in value chains. Transportation services and commerce contribute to both. However, just as RNFE activities can contribute substantially to agricultural upgrading, so underdevelopment or inappropriate development of the off-farm sector can act as a constraint on agricultural development.

While governments and donors pay a great deal of attention to the supply-side needs of RNFE development, the equally important demand side is often neglected. Major sources of demand for RNFE are nearby urban markets (for peri-urban areas), local rural markets, and exports (primarily for agroprocessing and in some areas tourism). Domestic demand plays a critical role, both in agricultural upgrading and in RNFE development. Growth engines such as urban markets, market-oriented agriculture, and entrepôts and transport corridors can thus provide a substantial boost, as can “implanted” natural resource-based projects such as mines and forestry (although these often operate as enclaves, with limited linkages to the local economy).

Beyond the geographical reach of such engines, migrant remittances can also act as a growth engine, although they are often concentrated among a few households, limiting their impact. In relatively closed local economies, local demand within the rural economy can act as a (somewhat weaker) engine, as the additional demand for agricultural produce and RNF activities associated with increasing incomes gives rise to multiplier effects, estimated in various LDCs at 1.3–2.0.

The key to rural structural transformation is to enable rural producers to respond effectively to demand changes as development progresses and incomes rise. This means moving beyond a focus on increasing agricultural productivity to paying more attention to rural non-farm activities and increasing production of higher-value agricultural products.

Increases in income translate into disproportionate increases in spending on non-food items and higher-value and more processed foods, generating opportunities for both agricultural upgrading and the development of agroprocessing. Recent evidence from LDCs in southern and eastern Africa and South Asia points to substantial demand for non-food products and non-staple and processed foods, indicating considerable potential for growth in local demand to drive agricultural upgrading and RNFE development.

Density and quality of infrastructure are crucial – to access markets for output and inputs, to reduce production and transaction costs, and hence to ensure effective supply response – and are associated with greater farm and non-farm investments and higher RNF incomes, especially in more favourable agroclimatic zones. This includes both soft infrastructure (e.g. marketplaces, communications networks, education and health services, financial and payments systems and market information systems) and hard infrastructure (e.g. electricity and water supply, storage facilities and roads). Infrastructure is extremely limited in most rural areas in LDCs, especially beyond peri-urban areas.

Electrification is a critical element of rural infrastructure investment, with a potentially transformative effect; and renewable energy technologies now have the potential to overcome some of the key constraints on rural electrification. Better access to, and improved quality of, education can also have a substantial impact on RNF development over the longer term.

Transport infrastructure plays a pivotal role as well, and increased connectedness will be indispensable to poverty eradication in rural areas.

However, this is not a linear process, and the opening associated with strengthening transport connections is a two-edged sword, exposing local producers to competition from urban products and imports which they are ill-placed to withstand, as well as increasing access to inputs and markets. Key challenges in the post-2015 context will be to enable rural producers to compete effectively in an increasingly open local market; to identify and move successfully into new and remunerative activities; and to harness the economies of scale and develop the marketing skills needed to compete in markets elsewhere.

Construction of rural infrastructure can also play a very important secondary role in rural development, by creating employment through labour-based construction and maintenance methods and RNFE opportunities through local procurement. As well as potentially reducing costs, this could contribute substantially (albeit temporarily) to reducing the deficit in demand that constrains RNFE development.

The key role of urban proximity in the development of rural areas, and of their opening to wider markets through improved transport infrastructure, highlights the importance of a differentiated approach to peri-urban, intermediate and remote and isolated areas, according to their respective comparative advantages. The comparative advantage of peri-urban areas lies primarily in servicing urban markets, notably for higher-value and processed foods, as well as, for example, leisure activities and transport services.

In intermediate areas, export production is often more important, providing opportunities for upgrading and processing activities, as well as increasing export value through product differentiation (e.g. organic certification). Diversification of agricultural production into higher-value crops and agroprocessing to increase tradability of agricultural produce may also provide useful opportunities, as may biofuel production and biofuel crop cultivation. Other options include commercialization of craft production, construction materials (especially in the post-2015 context) and, where local conditions are conducive, mining, tourism, forestry, fisheries and so forth.

Remote and isolated areas are generally oriented primarily towards subsistence production, making increased production of staple foods a precondition for structural transformation. Limited connection with wider markets makes local demand the primary driver of development, suggesting a focus on progressively increasing production of higher-value foods, livestock and artisanal agroprocessing. While demand for “Z goods” (non-food goods, typically of

relatively low quality, produced on a small scale using traditional labour-intensive methods) is also likely to increase over time, the long-term viability of such production is limited. High transport costs and the potential for substantial local demand arising from post-2015 infrastructure investments point to a potential market for construction materials where these are available locally.

Gender-based constraints on rural economic transformation

Women make up half of the agricultural labour force in LDCs, and this proportion has increased progressively over time in all three geographical subgroups. However, rural women in LDCs continue to face multiple constraints on their productive potential. The double burden of productive activities and care work gives rise to greater time constraints for women than for men, and also limits their mobility and the time they can devote to upgrading their skills. This is compounded by a disproportionate burden of unpaid agricultural work: While food crops are traditionally viewed as “female” and cash crops as “male”, the distinction arises primarily in control over the proceeds, as women generally provide as much of the labour as men in cash crop production. There are, however, gender differences in the distribution of agricultural tasks and in livestock: While men generally predominate in cattle herding, women tend to raise poultry and other small livestock and dairy animals.

There are also significant gender differences in non-farm activities, women often predominating in petty and retail trade, and men in transport and construction. Artisanal agroprocessing is often a traditionally female occupation, and employment in agro-industrial processing of high-value products also tends to be predominantly female. However, even when they are in wage employment, women are more likely than men to be segregated in part-time, seasonal and/or low-wage work. While new forms of organization can provide new opportunities for rural women, they thus also pose new challenges.

Women face particular constraints on access to productive resources. There is a consistent pattern of inequality in access to land across LDCs. However, this arises primarily from sociocultural practices enshrined in customary law and practices rather than from civil law, which creates major challenges in turning legal enactments into de facto rights. Rural women, and particularly female heads of household, also tend to have lower literacy rates and significantly fewer years of education than their male counterparts.

These disadvantages contribute to limited access to credit, where it is available, as women are less likely to have land to use as collateral, and are less able to complete application formalities. Partly for this reason, they are less likely to use inputs such as fertilizers and improved seeds; and the benefits of input subsidy schemes are often limited by lack of gender sensitivity in their design. When women farmers do use purchased inputs, the effect on their productivity can also be more limited, possibly reflecting gender biases in agricultural extension services. Female-headed households are also often disadvantaged by limited male family labour and cultural constraints on their ability to hire non-family labour.

These factors contribute to significant differences between male- and female-managed plots in terms of yields, harvested areas and crop losses. These gender-based obstacles compound and interact with other market imperfections in rural areas to diminish women's productivity and entrepreneurial potential, reducing the dynamic potential of rural economies and slowing their transformation. Unless such constraints are addressed, the supply response to incentives aimed at increasing production and marketed surpluses will remain sluggish, as half of the labour force will remain unable to respond effectively. Globally, the Food and Agricultural Organization of the United Nations (FAO) estimates that providing women with the same access to productive resources as men could increase yields on their farms by 20–30 per cent, raising total agricultural output by 2.5–4 per cent.

However, there is an important distinction between gender inequalities that arise directly from gender norms, and what might be called contingent inequalities – those which arise indirectly from the interaction of the resulting disadvantages with those arising from poverty. The double burden of care and productive work, discriminatory practices in land ownership and inheritance, differences in access to education and gender segregation in labour markets, for example, arise directly from gendered social structures and norms; and addressing them effectively requires direct, gender-specific action to correct or compensate for structural gender biases.

However, the consequences of these disadvantages – low incomes, limited savings and assets, lack of access to inputs, markets and/or credit, etc. – are shared by many men, whose productivity is similarly impaired as a result. These indirect disadvantages are more appropriately addressed through more inclusive but gender-sensitive approaches, directed both at women and at equally disadvantaged men. Directing support to women while arbitrarily excluding similarly disadvantaged men, particularly in a context of strongly patriarchal traditional cultures, could result in alienation, potentially undermining longer-term efforts to tackle the underlying causes of gender inequality.

Domestic policies for rural economic transformation

In principle, poverty eradication ultimately requires: (1) decent work for all; (2) a minimum wage at a level sufficient to provide households at least with an income that is above the poverty line; and (3) social safety nets. However, this is better seen as a destination than as a route. To be feasible and economically sustainable, poverty eradication requires poverty-oriented structural transformation (POST), to ensure that productivity is sufficient to support wages at this wage level and that dips in income below the poverty line are limited and temporary. Structural transformation of rural economies, encompassing agricultural upgrading and diversification into non-farm activities, is a key part of this process.

Agricultural needs vary widely between locations, but key elements include:

- Agricultural right-sizing. Rather than seeking to promote either small- or large-scale agriculture, policies should be based on optimal plot sizes in each location, given the agroecological and other conditions as well as the potential crops, taking account of economic, social and environmental considerations.
- Increasing use of locally appropriate inputs to increase agricultural productivity and yields, while maintaining labour intensity and increasing environmental sustainability. This can be achieved through extension services and measures to boost the local supply of these inputs.
- Promoting early adoption of innovations and new technologies, especially by women and other disadvantaged producers, e.g. through input subsidy schemes encompassing packages of inputs for different agroecological and farm systems, and measures to tackle scale issues in input supply.
- Increased support to R&D and extension. This should also include measures to ensure that R&D and extension meet the needs of small and women farmers and local conditions, by integrating gender considerations into extension services, establishing a two-way communication process between producers and R&D agencies through extension services, and identifying and supporting local farm advisers.
- Market differentiation, through organic, fair trade and sustainability certification, as a means of increasing the value of agricultural exports. Capacity-building for producers and government facilitation of certification processes can help to prevent such schemes from becoming de facto non-tariff barriers.

Agricultural upgrading can reduce push pressures for “survivalist” income diversification. Together with support to “entrepreneurs by choice” (and increased opportunities through rural electrification), this can help to create a more dynamic non-farm sector. While microenterprise creation is likely to be needed in remote and isolated areas, enterprise expansion can create more employment in peri-urban areas. Non-farm activities are particularly important in generating productive employment in seasons of low agricultural labour demand.

Increased staple production is an early priority, particularly in remote and isolated areas, to provide small farmers with the confidence in future food availability that is essential to investment in other activities. Local food stocks can also help in this regard. Agroprocessing provides an important synergy between agriculture and non-farm activities, as agricultural upgrading and diversification create new opportunities, while processing increases product life and tradability. It is particularly beneficial in generating employment and business opportunities for women. With appropriate incentives, export crops can create opportunities for increased agricultural incomes and agroprocessing through integration into global and regional value chains.

Gender-specific measures are required to tackle the causes of disadvantages faced by rural women, particularly land and inheritance rights and time poverty. Gender sensitivity is essential in resolving land rights issues, to avoid further marginalization of women. Gender inequality in access to finance can generally be addressed most satisfactorily by mainstreaming gender into core programmes and policies, although gender-specific interventions may be needed in specific contexts.

The unrealized potential for a virtuous circle of agricultural upgrading and rural diversification highlights the need for demand- and supply-side mechanisms to kick-start the process of rural economic transformation. On the demand side, the need for a major increase in infrastructure investment can provide such a mechanism through the use of labour-based construction and maintenance methods and local procurement of materials and other inputs. Rural electrification can provide a similar boost on the supply side, but needs to be supported by appropriate policies and interventions in finance, access to technology and enterprise support.

Sequencing infrastructure investments and interventions is critical. This Report envisages three phases of rural economic transformation. In the first phase, the primary focus is on investments and interventions that promote effective supply response (enterprise promotion, training, finance and access

to inputs), paving the way for the second phase, in which the emphasis is on demand-creating infrastructure investment, local connections within rural economies and increasing supply capacity. The combined effect should create the capacity for local producers to exploit economies of scale and withstand competition from urban producers in the third phase, where rural-urban connections are improved.

The demand created by agricultural upgrading and rising rural incomes is a critical driver of rural transformation, but requires an effective supply response. This calls for appropriate policies and interventions in finance, human resources and enterprise support.

The limitations of microfinance in the context of rural economic transformation and poverty eradication suggest a need for selectivity (focusing on dynamic “entrepreneurs by choice” and small and medium-sized enterprises, while avoiding its use in non-commercialized areas) as well as for modifications and alternatives. Conditional interest subsidies of microcredit (with ceilings on interest rates to borrowers) may provide a useful mechanism, while annual in-kind microgrants of productive inputs (phased out over an extended period) may be necessary to provide access to finance, productive technologies and associated inputs in remote and isolated areas.

While increasing schooling of children has major long-term benefits, adult education is critical to rural economic transformation in the shorter term. Male biases in education make adult education for women especially important. Particular priorities are basic literacy and numeracy, vocational skills, financial literacy and business skills. Financial literacy and business skills are critical where productive investment is financed by credit and in areas where production is predominantly subsistence-oriented; but basic numeracy and literacy will be a precondition in many contexts. Progressively higher levels of business skills will be needed as the transformation process advances.

Vocational training should reflect the priority sectors in each local context, and construction-related skills (and electricians and mechanics) will be a particular priority in the initial phase of rural transformation. By employing local workers in skilled positions and providing follow-up training on the application of the skills acquired in longer-term activities, infrastructure investment can provide an additional human-resource legacy. The benefits of vocational training can be enhanced by encouraging or requiring beneficiaries to take on apprentices; and migrants may provide a useful means of urban-rural skills transfer.

Long lead times in investment in agriculture, in new non-farm activities, and in areas where access to inputs is limited make information about anticipated changes in demand essential to an effective supply response. This is particularly important, since the risk aversion inherently associated with poverty makes a high level of confidence a prerequisite for diversion of efforts or resources to new activities. In principle, household expenditure surveys can provide a basis for estimating local demand changes as incomes rise; and providing such information (and information on other prospective market changes, e.g. those arising from transport infrastructure improvements) as a public good could substantially improve supply response and business viability.

Where cell phone coverage exists, it can provide an invaluable means of targeted information provision; but issues of limited coverage, access, literacy and affordability mean that older technologies such as radio still have an important role as a means of wider communication.

Rural economic transformation requires effective policy coordination; but responsibility is generally spread across multiple ministries and agencies. An effective interministerial coordinating mechanism, chaired by the head of Government or someone at the highest level of government, could contribute substantially to this goal.

Decentralization is also critical, but often constrained by financial and human resources; and areas remote from markets are also remote from public institutions, limiting policy effectiveness and the potential for effective action at the local level. In this context, cooperatives, producers' associations and women's networks can play a key role, including in access to finance, inputs, equipment, new technologies, training, information, markets, etc., as well as strengthening small producers' bargaining power and economies of scale. They could also provide an organized constituency for rural development. Streamlining procedures for the establishment of such organizations and networks, facilitating their development, and channelling interventions through them (with appropriate support) can thus make a major contribution to rural transformation.

The international dimension

Rural economic transformation on a scale sufficient to eradicate poverty in LDCs by 2030 is an immensely ambitious undertaking, which will require changes at the international level. In particular, given the severe financial constraints of most LDCs, it will necessitate a considerable increase in official development assistance (ODA). However, in adopting the SDGs, the international community has effectively committed itself to delivering the means necessary to their achievement: It is a long-established philosophical principle that “to will the end is to will the means”.

In the context of the SDGs, there is a strong case for increasing the target level of ODA from 0.15–0.20 per cent of donor gross national income to 0.35 per cent – half of the overall ODA target of 0.7 per cent to which donors are committed under SDG 17 (“Strengthen the means of implementation and revitalize the global partnership for sustainable development”). This would be commensurate with the LDCs’ share in the human development deficits addressed by the SDGs, and with the increase in the rate of extension of access to rural infrastructure required to achieve them. It would lead to an increase in ODA to LDCs from \$30 billion in 2013 to around \$250 billion by 2030, while also allowing a major rise in ODA to ODCs, provided the 0.7-per-cent commitment was fulfilled. Realizing the SDG undertaking to fulfil existing commitments on aid quality is also important, particularly with respect to recipient country ownership and policy space. This means ensuring that ODA conditionalities provide the policy flexibility needed to enable recipient countries to pursue nationally appropriate strategies and opportunities for learning and experimentation. It is equally important that productive sectors are given appropriate priority in allocation of additional ODA, especially in rural areas. The ultimate objective of ODA should be to support the development of productive capacities in LDCs and of their capacity for domestic resource mobilization, progressively reducing their need for ODA.

Since the benefits to LDCs of further multilateral tariff reductions are offset by the resulting erosion of existing preferences, fulfilling commitments on duty-free, quota-free market access and improving the terms of preferential agreements (particularly regarding rules of origin) are a primary consideration. Developmental regionalism could also provide a means of strengthening regional industrial bases, particularly among African LDCs, where limited intraregional trade in agricultural produce signals significant unrealized potential.

Beyond the trading system itself, developing a “sustainable development” brand linked to the SDGs that builds on existing fair trade and sustainability labelling initiatives, could provide substantial benefits in terms of marketing and product differentiation. Innovative approaches to cross-border investment could also offer a means of financing rural transformation and infrastructure, for example through the development of proactively ethical investment instruments and mechanisms for diaspora direct investment. These two mechanisms could be linked to harness their synergies.



Dr. Mukhisa Kituyi
Secretary-General of UNCTAD

