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Labour Supply and the Lack of Productive Employment

Chapter

4

A. Introduction

The labour force is an important productive resource of the LDCs, and a key challenge which they face in developing their productive capacities is to ensure that it is more fully and productively employed. In almost all the LDCs there is an imbalance between the rate of growth of the labour force, which is very rapid owing to population growth, and the rate of capital accumulation and technological progress, which as shown in the previous two chapters, is generally slow. As a result, most workers have to earn their living using their raw labour, with rudimentary tools and equipment, little education and training, and poor infrastructure. Labour productivity is low and there is widespread underemployment.

This is the basic cause of persistent mass poverty in the LDCs. In most of the LDCs extreme poverty is not mainly associated with outright unemployment; rather, it arises because the labour force is generally working for very low incomes which are insufficient to raise household living standards above the poverty line. There are two proximate causes of poverty in this situation: (i) underemployment, and (ii) low returns to labour (Osmani, 2005). Underemployment is most clearly discernible in situations in which persons work less than full-time in terms of the total number of hours a week and days a year. But “disguised underemployment” is also possible in the sense that a person apparently works full-time, but at a very low intensity, within a household enterprise (such as a family farm or a petty trading business) in which work and income are shared amongst household members. However, even when they work full-time and high-intensity, many workers in the LDCs are able to achieve only low returns for their labour. Again, following Osmani (2005), this situation arises for the following reasons: (i) because these workers compete with potential entrants who have very low reservation wages (unemployed and underemployed who constitute a pool of surplus labour); (ii) because of low productivity (owing to poor skills, poor technology or inadequate complementary factors); and (iii) owing to adverse terms of trade (low product prices or high input costs).

Creating productive employment opportunities for the expanding labour force is a major economic and social problem for most LDCs. However, this problem is also a major economic opportunity. If the latent energies and enterprise of underutilized labour are harnessed, it should be possible not only to reduce poverty but also to accelerate economic growth. As discussed in chapter 2, high growth rates can be achieved in very poor countries through investment and innovation in activities with increasing returns and strong linkage effects. In successful developing countries this process has been sustained by an elastic supply of labour and capital for those dynamic sectors of the economy (Ros, 2000). In the LDC context, the potential for such a high elasticity of supply of labour is present owing to high rates of underemployment and the concentration of workers in low-productivity activities. The underemployed labour working in low-productivity activities is an immense underutilized

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The underemployed labour working in low-productivity activities is an immense underutilized productive resource which can provide the foundation for high and sustained growth within the LDCs if the growing labour supply is linked to processes of capital accumulation and technological progress.

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The previous chapter showed that labour productivity within the LDCs was very low and growing slowly. There was also a very widespread pattern in which labour productivity outside agriculture was falling within the LDCs. This chapter seeks to deepen the understanding of these trends by examining trends in labour supply and in employment opportunities within agriculture and outside agriculture. Some of the analysis draws on international data on labour supply and agriculture. However, most of the evidence relies on case-study material. Although this does not encompass the full range of situations within the LDCs, it illustrates the dimensions of the problem of generating productive employment opportunities which most LDCs now face.

The chapter begins (section B) by looking at the growth and changing locus (both rural–urban location and sectoral composition) of the labour force in the LDCs. Section C discusses opportunities for the productive employment of labour within agriculture. These are changing as the land frontier is being reached and farm sizes are becoming smaller, whilst extreme poverty means that many households simply do not have the means to increase productivity through sustainable intensification. Section D discusses opportunities for the productive employment of labour outside agriculture. Here the basic trend is one in which formal employment opportunities are not expanding fast enough to absorb the economically active population outside agriculture, and there is a proliferation of survivalist, low-productivity informal sector enterprises and high levels of urban underemployment. Section E summarizes the basic messages of the chapter.

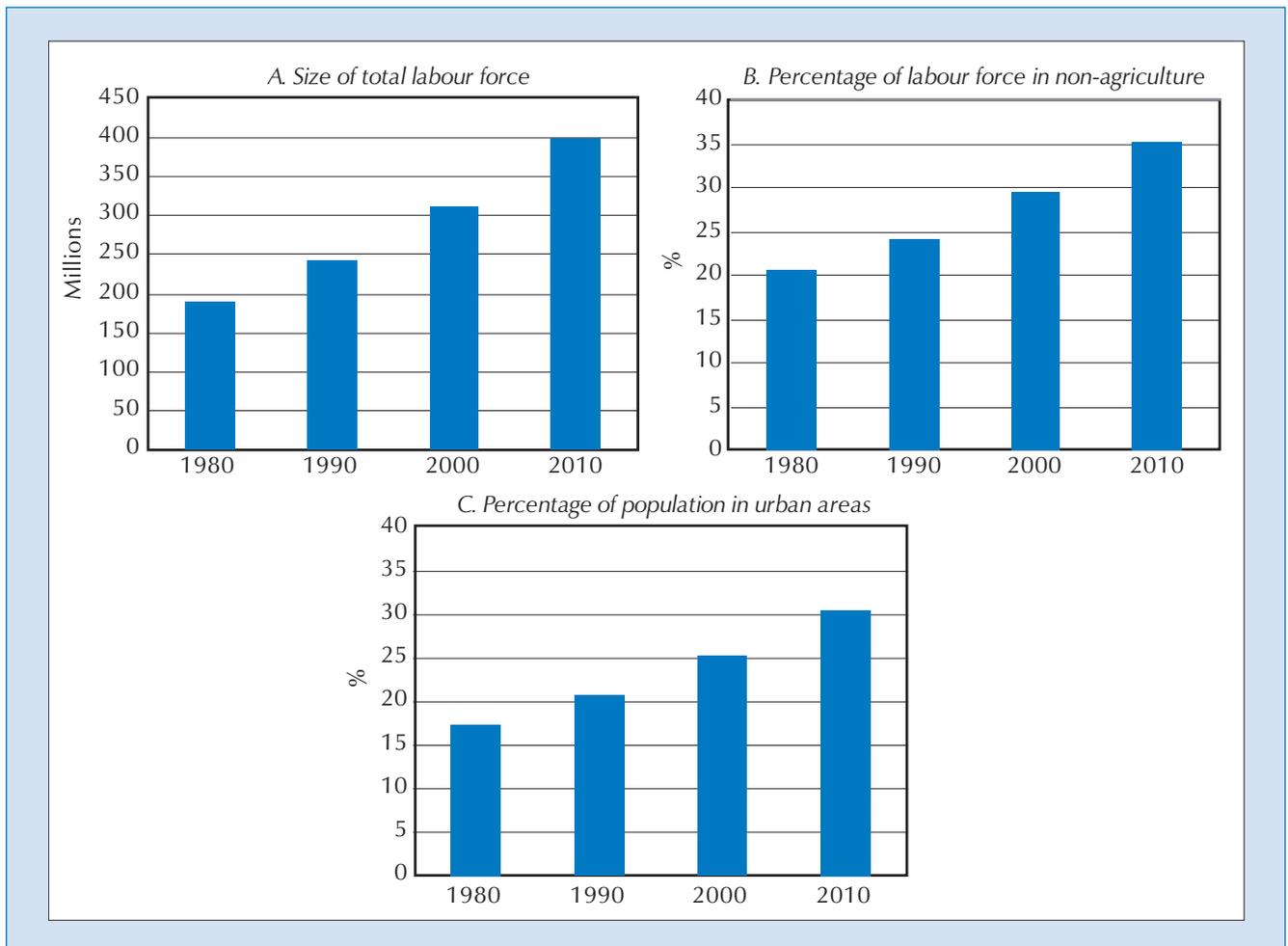
B. The growth and changing locus of the labour force

Between 1990 and 2000, the labour force of the LDCs increased by 71 million, and it is expected to grow between 2000 and 2010 by a further 89 million to reach 401 million.

The dearth of available data makes it difficult to describe conditions of labour supply in detail in the LDCs.¹ Following the approach in the previous chapter, the description here is based on FAO estimates of the economically active population. These are used as they enable a breakdown into the labour force in agriculture and in non-agricultural sectors of the economy, the latter encompassing all economic activities outside agriculture (mining, construction, utilities, manufactures and various kinds of services). The economically active population is defined as those who furnish the supply of labour for the production of goods and services during the specified reference period, namely employers, self-employed workers, salaried employees, wage earners, casual day-workers, unpaid workers assisting in a family farm or business operation, members of producers cooperatives and members of the armed forces (see FAOSTAT online). The terms “economically active population” and “labour force” will be used interchangeably throughout this chapter.

According to the FAO estimates, the total labour force of the LDCs was 312 million people in 2000. Between 1990 and 2000, the labour force increased by 71 million, and is expected to grow between 2000 and 2010 by a further 89 million to reach 401 million (chart 32). A large share of the increment in the total labour force between 2000 and 2010 (22 per cent), will occur in Bangladesh.² However, all LDCs are experiencing large growth in their labour force during the present decade. For 36 out of 50 LDCs for which data are available, the labour force is expected to increase by over 25 per cent.

CHART 32. THE GROWTH AND CHANGING LOCUS OF THE LABOUR FORCE IN LDCs, 1980–2010



Source: UNCTAD secretariat estimates based on FAO, FAOSTAT, online, December 2005.

Note: The labour force is the economically active population.

Chart 32 also shows past trends and future projections of the share of the labour force in non-agricultural activities and the distribution of the population between urban centres and rural areas. In 2000, 71 per cent of the labour force was engaged in agriculture and 75 per cent lived in rural areas. But the urbanization rate increased from 17 per cent in 1980 to 25 per cent in 2000, and the share of the population engaged in non-agricultural activities steadily increased from 21 per cent in 1980 to 29 per cent in 2000.

These trends are widespread within the LDCs. Table 38 summarizes the projected shift from 1990 to 2010 in individual countries. In 1990, two thirds of the LDCs had less than one third of their population living in urban areas and less than one third of their economically active population engaged outside agriculture. But by 2010, less than one third of the LDCs will have this kind of economy and society.

The broad contours of change in the LDCs are thus clear. Within almost all LDCs, the population is not only growing rapidly but also urbanizing rapidly from very low levels. The combination of these factors is making the current decade a critical decade with regard to the employment situation within the LDCs. More people than ever before are seeking work. But in addition to this, an increasing proportion of the labour force is working or seeking work outside agriculture.

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TABLE 38. CHANGING LOCUS OF THE LABOUR FORCE IN LDCs, 1990 AND 2010

		Population in urban areas % total population in 1990			Population in urban areas % total population in 2010				
		0-33%	34-66%	67-100%	0-33%	34-66%	67-100%		
Labour force in non-agriculture, % total labour force in 1990	0-33%	Afghanistan Angola Bhutan Burkina Faso Burundi Cambodia Chad Comoros Dem. Rep. of the Congo Gambia Guinea Guinea-Bissau Haiti Lao PDR Madagascar Malawi Mali Mozambique Myanmar Nepal Niger Rwanda Sierra Leone Solomon Islands Somalia Sudan Timor-Leste Uganda United Rep. of Tanzania	Central African Rep. Equatorial Guinea Liberia Sao Tome & Principe Senegal Zambia	Djibouti	Labour force in non-agriculture, % total labour force in 2010	0-33%	Bhutan Burkina Faso Burundi Eritrea Ethiopia Gambia Lao PDR Madagascar Malawi Nepal Niger Rwanda Solomon Islands Timor-Leste Uganda	Angola Comoros Guinea Guinea-Bissau Mali Mozambique Myanmar Senegal United Rep. of Tanzania	Djibouti
	34-66%	Bangladesh Lesotho Samoa Togo Vanuatu Yemen	Benin Mauritania			34-66%	Afghanistan Bangladesh Cambodia Chad Lesotho Yemen	Benin Central Afr. Rep. Dem. Rep. of Congo Equatorial Guinea Haiti Liberia Sao Tome & Principe Sierra Leone Somalia Sudan Togo Zambia	Mauritania
	67-100%	Maldives	Cape Verde Kiribati Tuvalu			67-100%	Maldives Samoa Vanuatu	Cape Verde Tuvalu Kiribati	

Source and Note: As for chart 32.

It is important to emphasize that agriculture will still be the major source of livelihood in the LDCs by 2010. The combination of the rate of growth of the economically active population and the rate of decline in the share in the total economically active population in agriculture means that the economically active population in agriculture is expected to continue to rise during the current decade. It is projected to increase in 2010 to 260 million people as against 141 million in non-agricultural activities.

However, projections of economically active population show that during 2000–2010, of the 89 million increase in the economically active population, 49 million will be outside agriculture and 40 million in agriculture (chart 33). This is a complete reversal of the pattern of the 1980s, when 63 per cent of the increase in the economically active population was in agriculture. For the LDCs as a group it is the first decade in which the growth of the economically active population outside agriculture is expected to be greater than in agriculture. During the 1990s, a larger share of the growth of the economically active population was in agriculture.

The overall pattern of change for the LDCs as a group is strongly influenced by what is happening in Bangladesh. But in African LDCs, 46 per cent of the increase in the total economically active population is expected to be outside agriculture during 2000–2010 (as against 29 per cent in the 1980s), and in Asian LDCs other than Bangladesh 45 per cent of the increase in the total economically active population is expected to be outside agriculture during the same period (as against 36 per cent in 1980s) (chart 33). The economically active population outside agriculture is projected to grow faster than the economically active population in agriculture during the decade 2000–2010 in almost half the LDCs (24 out of 50 countries). These countries include Benin, Chad, the Central African Republic, the Democratic Republic of the Congo, Equatorial Guinea, Lesotho, Liberia, Mauritania, Sierra Leone, Sudan, Togo and Zambia in Africa; Bangladesh, Myanmar and Yemen in Asia; and Cape Verde, Kiribati, Maldives, Samoa, Sao Tome and Principe, Tuvalu and Vanuatu within the group of island LDCs. The break with past trends is also apparent in Haiti. In many of the other LDCs this break is projected to occur during the decade 2011–2020.

These estimates are, of course, projections which may not be realized. They rely on international data and so national estimates may vary. However, they define the essential dimensions of the problem of poverty reduction in the LDCs. This requires productive labour absorption both in agriculture and in non-agricultural sectors. The current configuration of growth of the labour force, urbanization and the increasing proportion of the population working outside agriculture mean that the latter challenge cannot now be neglected. Poverty reduction requires the employment creation in both the agricultural and non-agricultural sectors.

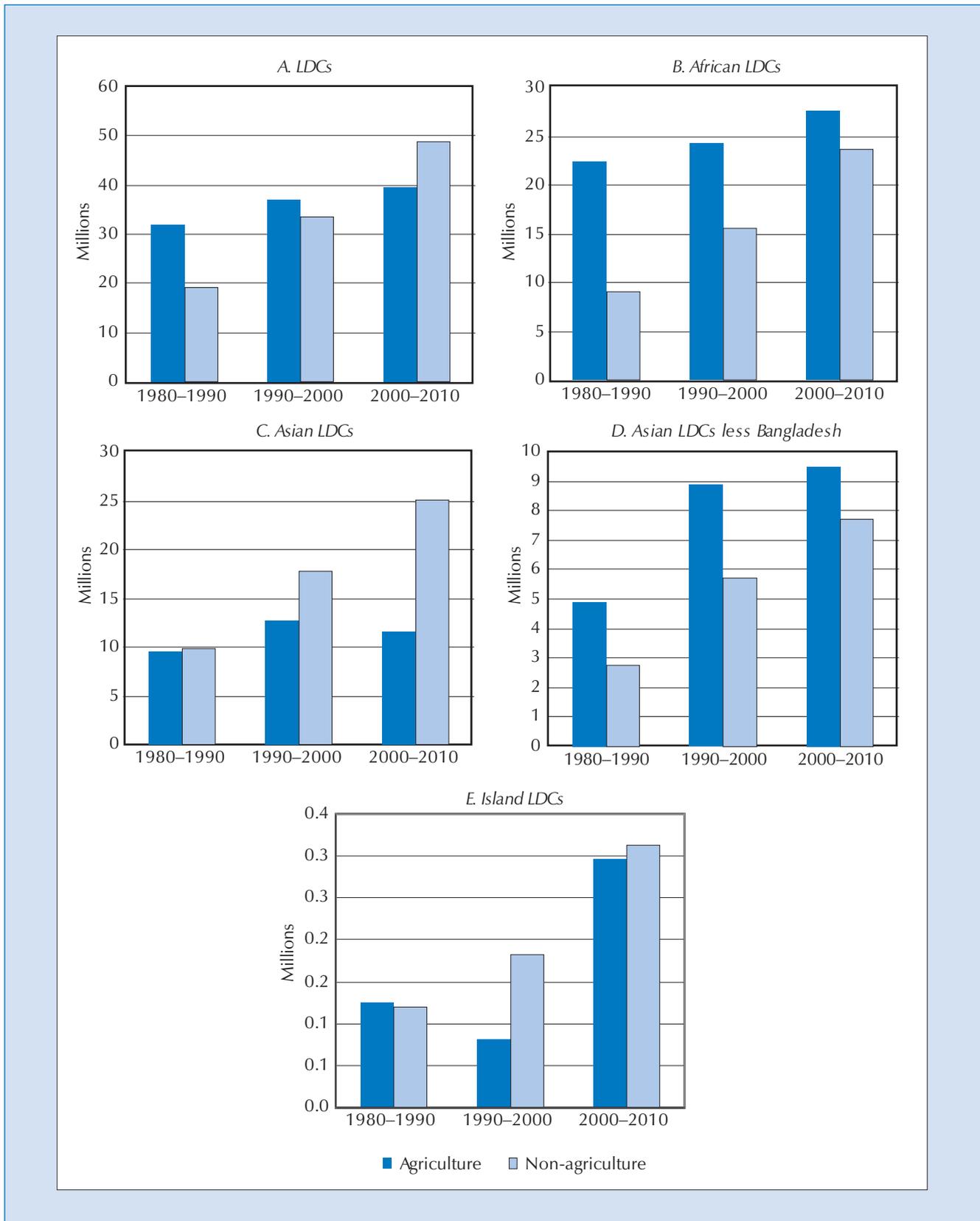
Productive labour absorption can be said to occur when there are “employment changes in the economically active population that increase the average productivity of those in work, without increasing open unemployment and without average productivity falling in major production branches or groupings” (Gurrieri and Sáinz, 2003: 151). In ECLAC studies, where this concept has been used widely, productive absorption has generally been associated with the movement of economically active population from the agricultural sector to urban sectors (particularly industry), from manual to non-manual occupations and from the informal to the formal sector, and with reductions in the productivity gaps among these occupational groups or sectors, or between primitive parts of given sectors and their modern parts. The term “spurious labour absorption” has been used for employment changes in the economically active population that reduce the average productivity of a major occupational group. In the present analysis, the term “productive labour absorption” will be used to refer to both agriculture and non-agriculture. The challenge facing the LDCs is to ensure that the growth of the economically active population is associated with productive labour absorption in both these broad sectors of the economy.

For the LDCs as a group, 2000–2010 is the first decade in which the growth of the economically active population outside agriculture is expected to be greater than in agriculture.

The challenge facing the LDCs is to ensure that the growth of the economically active population is associated with productive labour absorption in both agriculture and non-agriculture sectors.

CHART 33. INCREASE OF AGRICULTURAL AND NON-AGRICULTURAL LABOUR FORCE IN LDCs AND LDC SUBGROUPS, FOR THE DECADES 1980–1990, 1990–2000 AND 2000–2010

(Millions of persons)



Source and Note: As for chart 32.

C. The changing relationship between land and labour

As shown in the previous chapter, agriculture is the major source of employment in most LDCs. Agriculture encompasses farming, forestry and fisheries, and for some LDCs, particularly island LDCs, fisheries play a significant economic role. But for most LDCs, farming is the most important of these three activities, and thus opportunities for productive employment depend critically on the relationship between land and labour.

1. LAND ABUNDANCE OR LAND SCARCITY?

The most important way in which labour has found productive work within LDCs over the last twenty-five years has been through agricultural land expansion. As shown above, during the 1980s and 1990s the increase in the economically active population was greatest in agriculture. But in addition, most of the expansion of agricultural output associated with this increase in the agricultural labour force is attributable to expansion of the cultivated area rather than increases in yields. Available FAO estimates indicate that in the 1980s, area expansion accounted for 77 per cent of the growth in cereal production in the LDCs, 77 per cent of the growth in roots and tubers production, 35 per cent of the growth of cotton production and 85 per cent of the growth of oil crop production. In the 1990s, area expansion accounted for 72 per cent of the growth in cereal production in the LDCs, 81 per cent of the growth in roots and tubers production, 80 per cent of the growth of cotton production, 105 per cent of the growth of oil crop production (yields declined) and 84 per cent of the growth of pulses production (FAO, 2002: table 5).

This process can continue to the extent that there is an unused agricultural land frontier. In this regard, the situation varies considerably amongst the LDCs. However, FAO (2002: 12) argues that “most have considerable unexploited potential in agriculture, thanks to their factor endowment in land, water, climate, the scope for utilizing their human resources and improving on their so far limited use of modern farming methods”.

Estimates for the mid-1990s suggest that for half of the LDCs for which data are available less than 40 per cent of potential arable land was actually being used (table 39). Potential arable land is defined here as areas which are suitable for cultivation in terms of soil suitability and availability of water (rainfall or irrigation), and includes lands currently under forest or wetlands which are protected and not available for agriculture. The level of utilization of potential arable land is particularly low in the humid zone of central Africa. But at the other end of the spectrum there are small group of LDCs (Burundi, Haiti, Yemen, Lesotho, Eritrea, Afghanistan and Rwanda) which have exploited almost all their potential arable land, as well as a few others (Bangladesh, Togo, Uganda and Somalia) which have relatively limited potential arable land to exploit. Significantly, available data show that water resources are also underutilized in many LDCs.³

These overall indicators suggest that abundance of unutilized agricultural land resources is a basic characteristic of many LDCs. However, the idea that LDCs are land abundant must be qualified in at least three ways.

Firstly, as more and more arable land is being brought into cultivation in the LDCs, there is increasing dependence on fragile lands (such as arid regions,

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TABLE 39. INDICATORS OF AGRICULTURAL LAND RESOURCES IN LDCs

	Land in use	Population on fragile land	Irrigated land	Agricultural land per agricultural worker ^a			Total fertilizers consumption	
	(% of potential arable land)	(% of total population)	(% of total agricultural land)	(hectares per worker)			(kilograms per hectare)	
	1994	1994	2000–2003	1980–1983	2000–2003	% change between 1980–1983 and 2000–2003	1980–1983	2000–2002
African LDCs and Haiti								
Angola	6	30-50	0.1	1.2	0.8	-33.3	3.1	0.1
Benin	26	30-50	0.4	1.4	1.8	28.6	1.9	13.9
Burkina Faso	24	50-70	0.2	0.8	0.8	0.0	3.3	3.0
Burundi	130	20-30	0.9	0.6	0.4	-33.3	1.3	2.4
Central African Republic	6	30-50	0.0	1.9	1.6	-15.8	0.5	0.3
Chad	15	30-50	0.1	1.6	1.3	-18.8	1.3	4.9
Dem. Rep. of Congo	3	50-70	0.0	0.8	0.6	-25.0	1.1	0.6
Djibouti	..	..	0.1	0.0	0.0	0.0	..	..
Equatorial Guinea	..	30-50	..	2.7	1.7	-37.0	0.1	0.0
Eritrea	201	>70	0.3	..	0.4	..	..	11.8
Ethiopia	40	30-50	0.9	..	0.5	..	..	13.5
Gambia	22	30-50	0.3	0.6	0.6	0.0	11.4	2.6
Guinea	20	30-50	0.8	0.5	0.5	0.0	0.4	1.9
Guinea-Bissau	10	20-30	1.5	1.0	1.1	10.0	2.5	4.4
Haiti	151	30-50	5.8	0.6	0.5	-16.7	3.2	12.8
Lesotho	160	30-50	0.1	1.4	1.2	-14.3	15.3	30.6
Liberia	7	20-30	0.1	1.0	0.7	-30.0	5.3	0.0
Madagascar	10	30-20	3.9	0.8	0.6	-25.0	3.7	2.6
Malawi	51	..	1.3	0.6	0.5	-16.7	21.3	37.7
Mali	10	50-70	0.7	0.6	1.0	66.7	5.4	8.8
Mauritania	66	30-50	0.1	0.4	0.8	100.0	2.0	3.9
Mozambique	4	20-30	0.2	0.6	0.6	0.0	9.4	5.0
Niger	..	>70	0.2	3.9	3.2	-17.9	0.3	0.3
Rwanda	259	30-50	0.5	0.4	0.3	-25.0	0.5	3.8
Senegal	..	30-50	1.4	1.1	0.8	-27.3	8.6	13.7
Sierra Leone	35	30-50	1.1	0.6	0.6	0.0	3.3	0.4
Somalia	90	50-70	0.5	0.4	0.4	0.0	1.5	0.5
Sudan	14	50-70	1.4	2.3	2.2	-4.3	5.6	3.9
Togo	83	20-30	0.2	2.6	2.2	-15.4	1.3	7.1
Uganda	84	30-50	0.1	1.0	0.8	-20.0	0.1	1.0
United Rep. of Tanzania	16	30-50	0.4	0.5	0.3	-40.0	7.2	2.5
Zambia	14	20-30	0.4	2.5	1.7	-32.0	15.3	8.4
Asian LDCs								
Afghanistan	207	50-70	7.1	1.8	1.30	-27.8	6.4	1.8
Bangladesh	71	..	49.5	0.3	0.2	-33.3	49.8	165.1
Bhutan	..	>70	7.3	0.2	0.1	-50.0	1.1	0.0
Cambodia	49	20-30	5.1	0.8	0.8	0.0	5.1	0.0
Lao People's Dem. Rep	22	50-30	9.4	0.6	0.5	-16.7	2.7	8.7
Myanmar	35	20-30	17.3	0.8	0.6	-25.0	13.8	13.7
Nepal	65	30-50	27.5	0.3	0.2	-33.3	12.4	31.8
Yemen	156	>70	2.9	0.8	0.6	-25.0	8.8	8.8
Island LDCs								
Cape Verde	..	>70	4.1	1.2	1.2	0.0	0.8	4.1
Comoros	..	30-50	..	0.6	0.5	-16.7	0.0	2.3
Kiribati	..	..	..	4.6	3.7	-19.6	0.0	0.0
Maldives	..	..	..	0.2	0.4	100.0	0.0	0.0
Samoa	..	..	..	4.6	6.1	32.6	1.2	35.6
Sao Tome and Principe	..	..	18.4	1.2	1.2	0.0	0.0	0.0
Solomon Islands	..	30-50	..	0.6	0.4	-33.3	0.0	0.0
Timor Leste	..	..	..	0.5	0.6	20.0	0.0	0.0
Tuvalu	..	..	..	2.0	2.0	0.0	0.0	0.0
Vanuatu	..	30-50	..	4.2	3.3	-21.4	0.0	0.0

Source: UNCTAD secretariat estimates based on FAO, FAOSTAT online, December 2005.

a Agricultural land is annual and permanent crops land; agricultural labor force is economically active population in agriculture.

steep slopes and fragile soils). For a sample of 39 LDCs for which data are available, it is estimated that there are 11 in which over 50 per cent of the population live on fragile lands and 31 in which over 30 per cent of the population live on fragile lands (World Bank, 2003: table 4.3) (see table 39). This is likely to become a major problem because extreme poverty can make it difficult for many households to use sustainable agricultural practices, and thus there are problems of land degradation and declining soil fertility.

Secondly, even though new land is being brought into cultivation within the LDCs, the agricultural labour force is growing faster than the expansion of the land area under crop cultivation. This is evident from the fact that the land under crop cultivation per person engaged in agriculture is generally declining. There are only 7 LDCs in which this ratio is clearly increasing, including 4 island LDCs plus Benin, Mali and Mauritania (table 39). For the LDCs as a group, the average size of the cultivated holding per economically active agriculturalist has fallen by 29 per cent over the last 40 years, compared with 18 per cent in the other developing countries. If this ratio is taken as a rough proxy of farm size, it is evident that in 33 out of the 50 LDCs the average farm size was under 1 hectare during the decade 2000–2003, and for the LDCs as a group average farm size was 0.69 hectares.

Thirdly, there are major inequalities in access to land resources and thus, even in apparently land-abundant countries where the land/labour ratio is apparently favourable, a significant share of the holdings are very small.

2. INEQUALITY IN LAND ACCESS

The issue of access to land resources is very complex because of the diversity of the land tenure situation. This includes private ownership; communal systems in which access to land is controlled by a group which allocates land in a particular area to individuals or households; and landlord–tenant relations, which may be based on a fixed rent for the use of the land or various types of sharecropping arrangements. Within African LDCs, where women have a very significant role in agricultural production, the gendered nature of modes of access to and control of land resources is also particularly important (see Gore, 1994). However, the basic situation in most LDCs is that as the rural population increases and the richer households accumulate land through market transactions, access to productive land becomes more and more restricted. This is not necessarily manifested in landlessness. But the poorest households have effective access to so little land that they can barely scratch a subsistence living through agriculture on their own holding.

Recent analysis has shown the smallholder land distribution in five African LDCs – Ethiopia, Rwanda, Malawi, Mozambique and Zambia (Jayne et al., 2003). The first three countries are land-scarce and the last two are land-abundant, and thus the data are indicative of the range of situations within African LDCs. These data, which exclude landless households and also agribusinesses, show that:

- On a per capita basis, farm sizes are very small, ranging from 0.16 hectares in “land-scarce” Rwanda to 0.56 hectares in “land-abundant” Zambia.
- There is significant inequality in land access in both land-scarce and land-abundant countries. The Gini coefficient of land per capita is equal to or exceeds 0.50 in all five countries.

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- The top 25 per cent of the population (in terms of land access) have access to more than 1 hectare per capita in land-abundant Mozambique and Zambia, but only 0.58 hectare per capita in Ethiopia, 0.43 hectares per capita in Rwanda and 0.60 hectares per capita in Malawi.
- In both land-abundant and land-scarce countries, the bottom 75 per cent of the population (in terms of land access) have access to less than 0.26 hectares per capita.
- The bottom 25 per cent of the population (in terms of land access) are approaching landlessness in all five countries, with access to less than 0.12 and 0.10 hectares per capita in “land-abundant” Zambia and Mozambique, respectively, and 0.02, 0.03 and 0.08 hectares per capita in Rwanda, Ethiopia and Malawi, respectively (table 40).

These surveys do not generally permit analysis of trends over time. But there are good data available showing trends in land access in Rwanda between 1984 and 2000 (table 40). These show that over this 16-year period household land access (use rights plus rented land) declined by 57 per cent, from 0.28 to 0.16 hectares per capita. Mean land access of the top 25 per cent of the households in terms of land access declined from 0.62 to 0.43 hectares per capita, whilst it declined from 0.07 to 0.02 hectares per capita for the bottom quartile. As a consequence, the gap between the land access of the top and bottom quartiles in terms of land access widened from a ninefold difference to a 21-fold difference in 2000 (Jayne et al., 2003: 265). These trends have rightly been described as a “Malthusian trap” in which land tenure is “under unendurable stress” (André and Platteau, 1996/1997). Although extreme, the trends are quite illustrative of what is happening in “land-scarce” areas within African LDCs.

The analysis unfortunately does not extend to other LDCs. However, data from Bangladesh, Cambodia, Haiti and Nepal indicate high levels of land inequality, with about 70 per cent of households having access to less than 1 hectare of land.

- In *Bangladesh*, survey estimates show that in 2000-2001, only 17 per cent of the farm households operated over 1 hectare of land. The average farm size was 0.65 hectares, which, with the level of land productivity prevailing at the time, could meet only about 70 per cent of basic human needs. For poor households, the average farm size per household was 0.29 hectares (Hossain, 2004: 8–9).
- In *Cambodia*, survey estimates for the late 1990s vary, but the main trend indicates that only 75–80 per cent of rural households with land had less than 1 hectare, and that 11–17 per cent of rural households

In “land-scarce” areas within African LDCs, there is a “Malthusian trap” in which land tenure is “under unendurable stress”.

TABLE 40. ACCESS TO LAND OF SMALLHOLDERS IN SELECTED AFRICAN LDCs

	Survey year	Land access per capita by income quartiles (Hectares)				Average land access per capita	Average land access per household	Gini coefficients	
		1	2	3	4	Hectares	Hectares	Hectare per capita	Hectare per household
Ethiopia	1995	0.03	0.12	0.22	0.58	0.24	1.17	0.55	0.55
Rwanda	1984	0.07	0.15	0.26	0.62	0.28	1.20	...	...
Rwanda	2000	0.02	0.06	0.13	0.43	0.16	0.71	0.54	0.54
Malawi	2000	0.08	0.15	0.25	0.60	0.22	0.99	...	...
Zambia	2000	0.12	0.26	0.26	1.36	0.56	2.76	0.50	0.44
Mozambique	1996	0.10	0.23	0.23	1.16	0.48	2.10	0.51	0.45

Source: Based on Jayne et al. (2003).

were landless. The average land holding is estimated at between 1 and 1.3 hectares per household (Boreak, 2000: chapter 6).

- In *Haiti*, the average farm holding is 1.8 hectares and 50 per cent of the holdings are less than 1 hectare (Government of Haiti, 2005: 18, and table 8).
- In *Nepal*, 47 per cent of the agricultural land holdings were less than 0.5 hectares and 74 per cent were less than 1 hectare in 2001 (National Census of Agriculture, quoted in UNDP, 2004: 25).

To summarize, most LDCs have underutilized agricultural land potential. But the available data indicate that inequality in access to land means that a large share of agricultural households have very small farms even in “land-abundant” LDCs.

3. TRENDS IN LAND PRODUCTIVITY

Farmers could make a reasonable living with quite small holdings if land productivity is high. But in most LDCs agricultural yields are low and also growing very slowly.

Table 41 summarizes annual average yields for some important food and export crops in the LDCs and other developing countries between 1980–1983 and 2000–2003. What is striking is that:

- Although cereal yields increased within the LDCs between these decades, they were increasing much more slowly than in other developing countries.
- For fibre crops, fruits, nuts and sugar yields were actually lower in 2000–2003 than in 1980–1983, and for two other food crops, oil-bearing crops and pulses yields were almost stagnant.
- With regard to export crops, yields have increased more, with the exception of sugar.

Estimates of agricultural yields in the LDCs in the period 2000–2003 show that cereal yields were just over about half the level in other developing countries, and yields for some other basic food crops (oil-bearing crops and vegetables) were less than half those in other developing countries (table 41). Moreover, rather than catching up with other developing countries in terms of agricultural yields, the LDCs as a group have been falling behind. Cereal yields fell from 63 per cent of the level in other developing countries in 1980–1983 to 53 per cent in 2000–2003. Yields of export crops within the LDCs (where land productivity has generally grown the most) are also even falling relative to other developing countries for all commodity groups except pepper and tobacco.

The poor performance of the LDCs is related to low levels of investment in agricultural land, particularly irrigation, and also low levels of use of modern inputs, particularly fertilizers. There are differences amongst the LDCs in this regard, with Asian LDCs performing much better than African LDCs. As chart 34 shows, only 7 per cent of agricultural land in the African LDCs was irrigated in 2000–2003, a level which was not much more than the level in the 1960s. In contrast, the proportion of agricultural land area which is irrigated in Asian LDCs increased from 10 per cent in the 1960s to 30 per cent in 2000–2003. The irrigated land area increased particularly strongly in Bangladesh (from 7 per cent to 53 per cent), but also in the Lao People’s Democratic Republic, Myanmar and Nepal.

Farmers could make a reasonable living with quite small holdings if land productivity is high. But in most LDCs agricultural yields are low and also growing very slowly.

The poor performance of the LDCs is related to low levels of investment in agricultural land, particularly irrigation, and low levels of use of modern inputs, particularly fertilizers.

TABLE 41. AGRICULTURAL LAND PRODUCTIVITY IN LDCs AND OTHER DEVELOPING COUNTRIES,
1980–1983 AND 2000–2003
(Hectograms per hectare)

	Period average		% change 1980–1983 and 2000–2003
	1980–1983	2000–2003	
LDCs			
Cereals	13 285	16 142	21.5
Fibre crops	5 069	4 906	-3.2
Fruits	59 902	57 462	-4.1
Nuts	7 919	6 359	-19.7
Oil-bearing crops	2 187	2 171	-0.7
Pulses	5 943	6 004	1.0
Roots and tubers	..	..	..
Vegetables	63 927	76 130	19.1
Cocoa	2 431	2 524	3.8
Coffee	4 250	5 337	25.6
Cotton	6 561	8 411	28.2
Pepper	5 301	7 791	47.0
Sugar	457 010	439 167	-3.9
Tobacco	8 608	10 579	22.9
Other developing countries			
Cereals	21 192	30 392	43.4
Fibre crops	4 506	6 801	50.9
Fruits	91 836	100 286	9.2
Nuts	9 881	10 689	8.2
Oil-bearing crops	3 089	5 709	84.8
Pulses	6 199	7 035	13.5
Roots and tubers	117 396	136 572	16.3
Vegetables	114 746	166 080	44.7
Cocoa	3 565	4 782	34.2
Coffee	5 519	7 610	37.9
Cotton	3 779	7 366	94.9
Pepper	7 169	7 167	0.0
Sugar	576 345	654 660	13.6
Tobacco	13 335	15 836	18.8

Source: As for chart 34.

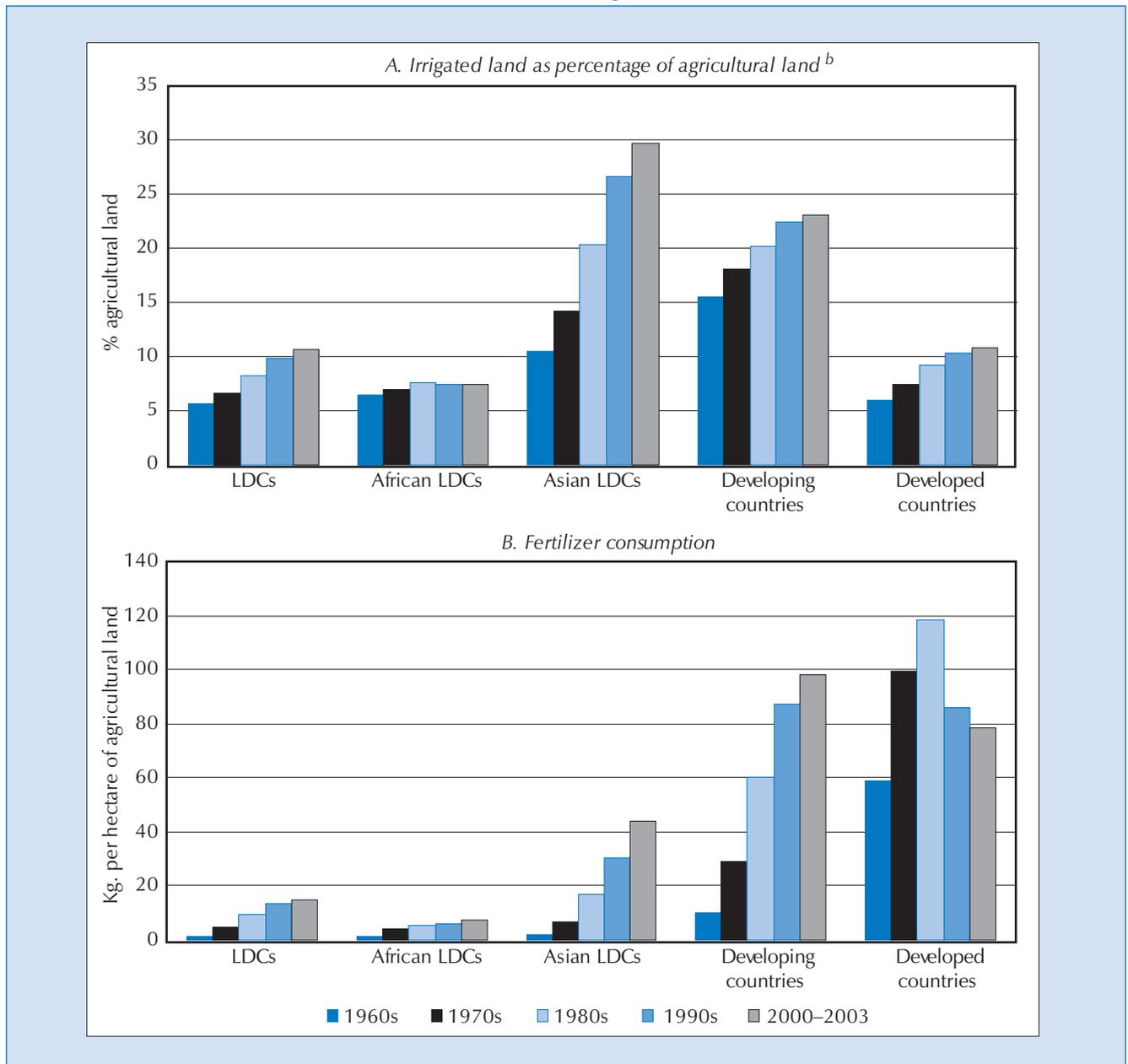
Note: Cotton is included in fibre crops. All other products and product groups add up to total primary crops.

There is much heterogeneity amongst smallholders in terms of land productivity.

With regard to fertilizer use, which represents the major purchased input of farmers in LDCs, fertilizer consumption per hectare was 44 kilograms per hectare in Asian LDCs compared with 7 kilograms in African LDCs in 2000–2003. The more detailed picture of fertilizer trends in LDCs by country (see table 39) shows that between 1980–1983 and 2000–2003 fertilizer consumption per hectare fell in as many African LDCs as it increased. One reason for this is the withdrawal of fertilizer subsidies and the failure of private traders selling fertilizer to enter the market in many rural areas following the dismantling of State marketing boards.⁴

As with access to land, there is much heterogeneity amongst smallholders in terms of land productivity. Yields are strongly influenced by the high incidence of extreme poverty, which means that farmers simply cannot afford to purchase the necessary inputs to increase or even maintain yields. Evidence from Uganda, the United Republic of Tanzania and Malawi shows that agricultural yields are much higher for richer smallholders than for poorer ones (Ellis, 2004; 2005). Net farm output per hectare for the richest 25 per cent of households was between three and six times higher than that in the poorest 25 per cent. The richest

CHART 34. IRRIGATION AND FERTILIZER CONSUMPTION IN LDCs, LDC SUBGROUPS AND OTHER COUNTRY GROUPS, 1960s, 1970s, 1980s, 1990s AND 2000–2003^a
(Period averages)



Source: UNCTAD secretariat estimates based on FAO, FAOSTAT online, March 2006.

a The 1960s do not include 1961 and fertilizer consumption is 2000–2002.

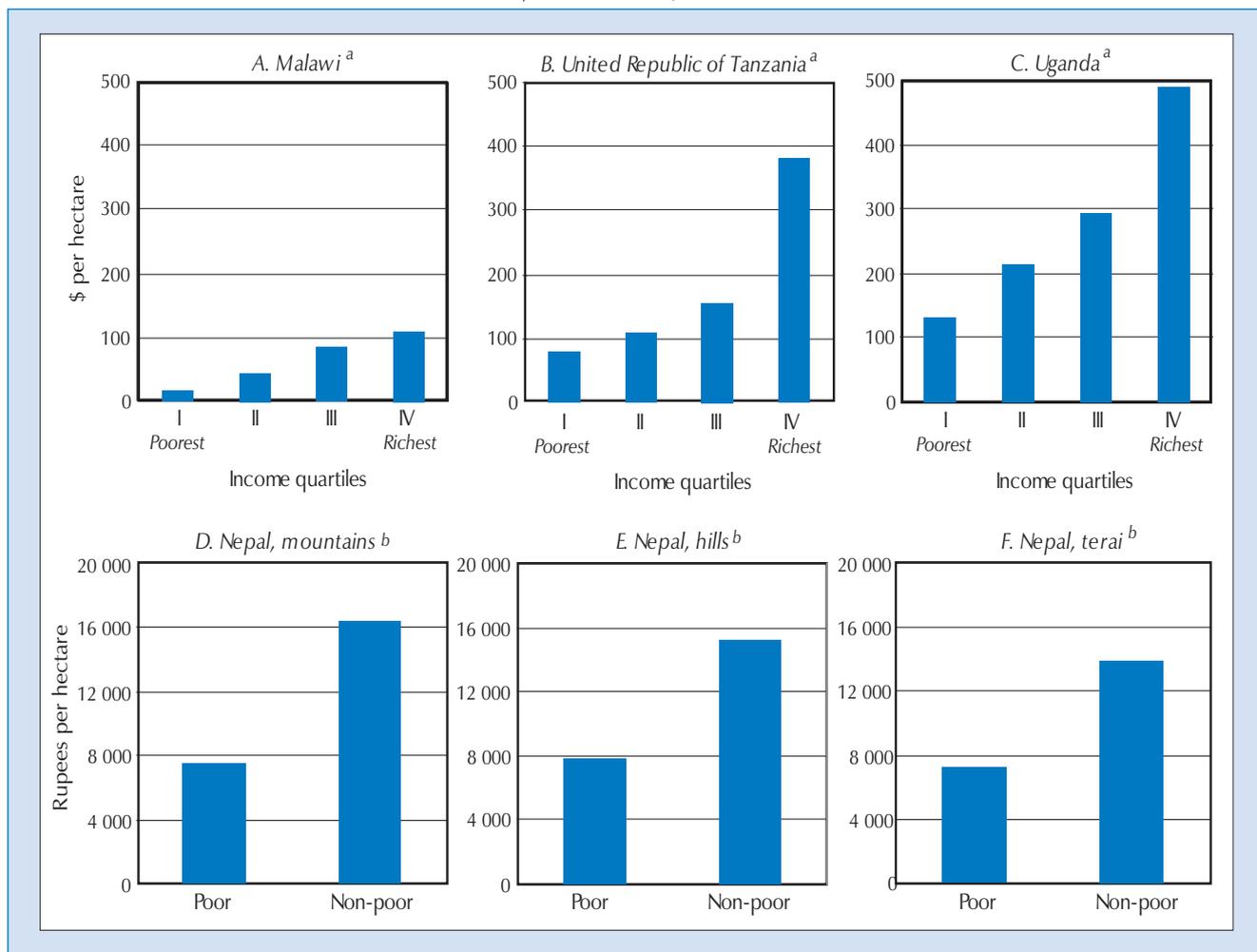
b Agricultural land area is area of arable land and land under permanent crops.

households also derived a much higher share of their total household income from off-farm activities, a fact that indicates a positive link (for these households at least) between engagement in off-farm activities and agricultural productivity. Similar patterns are found in Nepal (Acharya, 2004), where the value of farm output per hectare of poor households is about half that of the non-poor households (see chart 35).

In situations where many farmers have access to little land and are unable to purchase inputs to increase or maintain yields, strong pressures leading to environmental degradation may arise. As shown in UNCTAD (2002: 92–97), this can be part of a downward spiral of impoverishment in which the

Yields are strongly influenced by the high incidence of extreme poverty, which means that farmers simply cannot afford to purchase the necessary inputs to increase or even maintain yields.

CHART 35. LAND PRODUCTIVITY, INCOME INEQUALITY AND POVERTY IN SELECTED LDCs



Source: Based on Ellis and Freeman (2004) for Malawi, Uganda and United Republic of Tanzania; and Acharya (2004) for Nepal.

^a Based on survey data of 2001 and 2002;

^b Charts for Nepal are based on data from the early 1990s: Mountains, hills and terai are regions with different agricultural potential.

productivity of agricultural assets declines as people eat into the natural capital on which their livelihoods are based in order to survive.

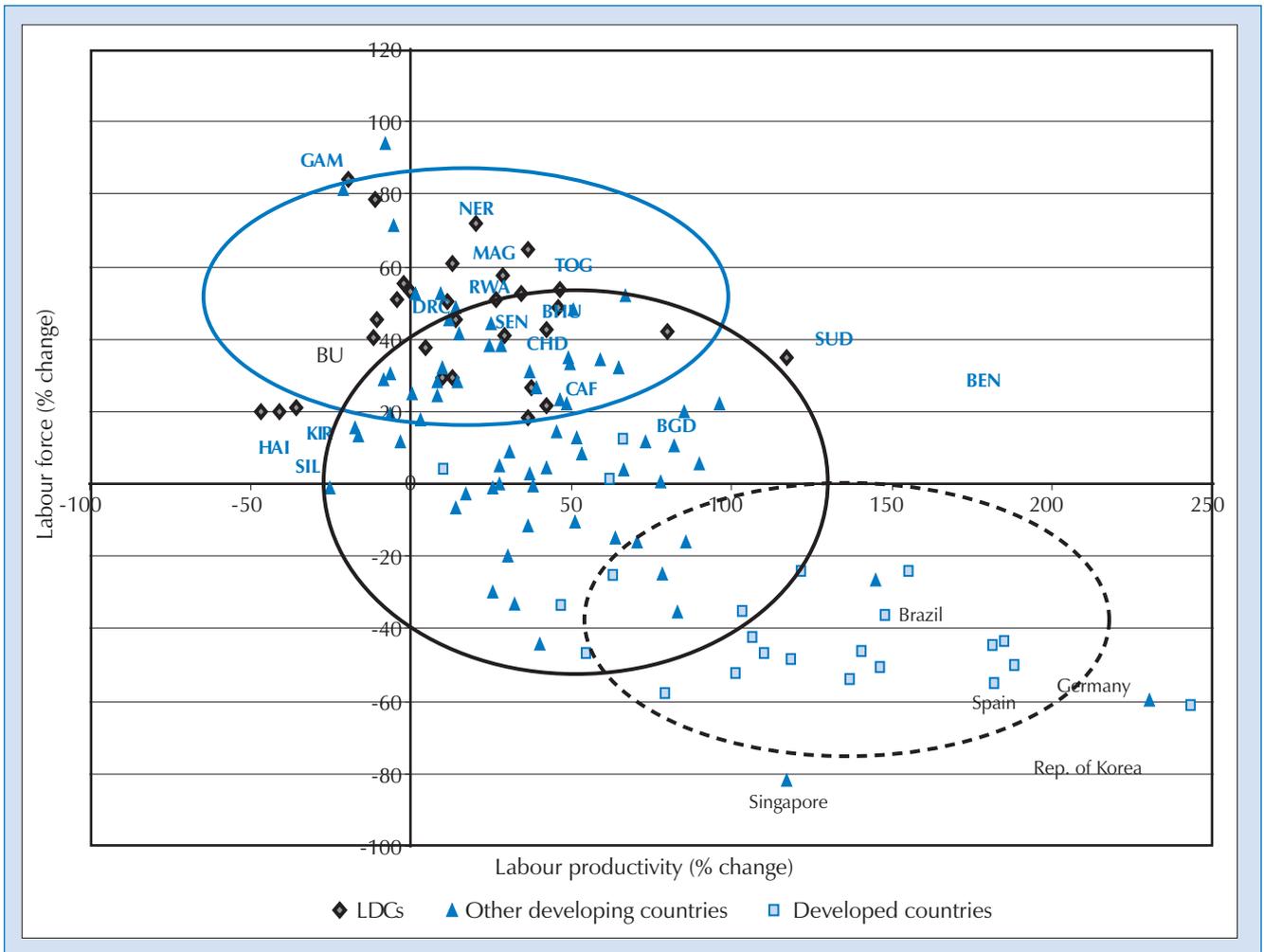
4. THE LIMITS OF PRODUCTIVE LABOUR ABSORPTION WITHIN AGRICULTURE

Up to now, the growth of yields, though slow, has been fast enough to offset the decline in land per person working in agriculture. In the future it is going to become increasingly difficult for more LDCs to absorb labour productively within agriculture.

Trends in agricultural labour productivity are the outcome of trends in land per person working within agriculture and trends in agricultural yields (output per unit of land). Up to now, the expansion of the land frontier, together with slow growth of yields, has made possible the productive absorption of labour within agriculture in most LDCs. The average farm size has generally been falling as the population working in agriculture has expanded faster than the area under cultivation. In most cases, the growth of yields, though slow, has been fast enough to offset the decline in land per person working in agriculture. But there are already some LDCs where the productive absorption of labour within agriculture is not occurring. Moreover, in the future it is going to become increasingly difficult for more and more LDCs to absorb labour productively within agriculture.

Chart 36 shows overall trends in the growth of labour productivity and employment in agriculture from 1980–1983 to 2000–2003 in the LDCs, other developing countries and developed countries. The countries fall into distinct

CHART 36. CHANGE OF LABOUR FORCE AND LABOUR PRODUCTIVITY IN AGRICULTURE, IN LDCs, OTHER DEVELOPING COUNTRIES AND DEVELOPED COUNTRIES BETWEEN 1980–1983 AND 2000–2003



Source: UNCTAD secretariat estimates based on World Bank, *World Development Indicators 2005*, CD-ROM, and FAO, FAOSTAT online, December 2005.

Notes: Value-added data are in constant 2000 dollars; labour productivity is estimated by value-added in agriculture divided by labour force in agriculture; labour force is the economically active population.

BGD: Bangladesh; BEN: Benin; BHU: Bhutan; BDI: Burundi; CAF: Central African Republic; CHD: Chad; DRC: Dem. Rep. of the Congo; GAM: Gambia; HAI: Haiti; KIR: Kiribati; MAG: Madagascar; NER: Niger; RWA: Rwanda; SEN: Senegal; SIL: Sierra Leone; SUD: Sudan; TOG: Togo.

groups. The developed countries are almost all characterized by declining absolute numbers of people working in agriculture and the highest rates of agricultural productivity growth. Most of the developing countries have slower rates of agricultural productivity growth (with Brazil and the Republic of Korea being notable exceptions) than the developed countries. In two thirds of the developing countries, this is combined with rising absolute numbers of people working in agriculture and in one thirds it is combined with falling numbers. The LDCs stand out in that in all cases they have rising absolute numbers in agriculture. Also, although some LDCs overlap with some of the other developing countries, they have the slowest rates of agricultural productivity growth.

In one third of the LDCs, as employment in agriculture has been growing since the early 1980s, agricultural labour productivity has been falling.

From chart 36 it is also evident that in one third of the LDCs, as employment in agriculture has been growing since the early 1980s, agricultural labour productivity has been falling. This is also happening in a few of the other developing countries. But the majority of the cases are LDCs.

These average trends also mask the effects of inequality in land access and in yields. As shown above, in a sample of countries representative of land-abundant and land-scarce LDCs within Africa, the bottom 75 per cent of the small farm-households in terms of land access have access to less than 0.26 hectares per capita. Moreover, the most disadvantaged 25 per cent of the small farmers in terms of land access are virtually landless in both land-abundant and land-scarce countries, a pattern which is also found in a number of Asian LDCs and in Haiti. In addition, there are major productivity gaps amongst smallholders, as noted earlier.

It is the combination of limited access to land and low productivity which is at the root of the precariousness of many rural lives in Africa.

Taken together, the combination of access to very little land and of low yields means that the poorest farmers are simply too asset-poor to make a good living from farming. Their farms provide a bare subsistence, with most of the physical output of food crops being retained for home consumption rather than sold in the market. It is this combination of limited access to land and low productivity which is at the root of the precariousness of many rural lives in Africa, evident in the way in which poor weather conditions are associated with widespread hunger and famine. Moreover, it leads to a situation in which the poor tend to diversify their sources of livelihood out of own-farm agriculture into various forms of local casual work, notably for the small stratum of richer farmers. For example, in the studies of smallholder land distribution referred to earlier, off-farm income contributes as much as 39 per cent and 35 per cent of household income of the 25 per cent of the farmers with least access to land in Zambia and Rwanda respectively, although the shares are lower in Ethiopia (8 per cent) and Zambia (13 per cent) (Jayne et al., 2003: table 5). There is also increasing reliance of remittances as younger and male household members move to urban centres to seek a living.

In the future as the agricultural frontier closes within more and more LDCs and the possibility of increasing agricultural production through area expansion diminishes, it is going to be increasingly difficult to absorb labour within agriculture unless there is a switch to a more intensive pattern of agricultural growth. The gap between agricultural yields within LDCs and other developing countries suggests that there is the potential for major agricultural productivity gains within the LDCs. However, sustainable intensification will be difficult to achieve for the poorest farmers, for whom the lack of productive asset holdings creates poverty traps (see Barrett, Carter and Little, 2006).

Productive employment opportunities are growing too slowly outside agriculture to absorb the increasing labour force seeking work away from the farm.

With the trade liberalization which has taken place in the LDCs too, farmers must also compete with more efficient farmers elsewhere in the world. Given the huge gaps in both agricultural land per person working in agriculture between the LDCs, other developing countries and developed countries, as well as widening productivity gaps, this is a daunting prospect. As noted earlier, for the LDCs as a group the average amount of agricultural land per person working in agriculture during 2000–2003 was 0.69 hectares. This compares with 13.1 hectares per economically active person in agriculture in developed countries. The global playing-field within agriculture is being levelled, but the capacities of players in these different worlds are far apart.

D. The informal sector and urban underemployment

The fact that it is becoming more difficult to absorb labour productively within agriculture does not matter in itself. But the challenge facing most LDCs is that at the same time as this is occurring, productive employment opportunities

are growing too slowly outside agriculture to absorb the increasing labour force seeking work away from the farm. As the previous chapter showed, labour is not being productively absorbed outside agriculture in four-fifths of the LDCs. The numbers of people seeking work outside agriculture is increasing, but the labour productivity outside agriculture is declining.

Further country-level empirical research is necessary in order to show what is behind this ubiquitous trend.⁵ However, in most LDCs the most likely explanation is that employment opportunities in formal sector enterprises are not expanding fast enough to absorb the growing non-agricultural labour force, and as a consequence the importance of employment in informal sector enterprises as a share of non-agricultural employment is increasing. Labour productivity within informal sector enterprises is on average lower than labour productivity within formal sector enterprises. Thus, as the share of the economically active population working outside agriculture which is also working within informal sector enterprises increases, so the non-agricultural labour productivity falls. This is the phenomenon of “spurious” rather than productive labour absorption referred to above.

There is, of course, some heterogeneity amongst informal sector enterprises, with some having much higher productivity and greater dynamic potential than others (Ranis and Stewart, 1999). This is an issue to which we shall return in chapter 7, as there are certain conditions, which are related to the stimulus of domestic demand, in which informal sector enterprises can play an important role in both productivity growth and employment creation. But most employment within informal sector enterprises in most of the LDCs consists of very small survivalist activities for which there are low entry requirements in terms of capital and professional qualifications. The scale of operation is small; capital equipment is rudimentary and skills are basic; and often the enterprise is run by the person who started it, sometimes with unpaid family members who share their earnings. Often the work involves petty services of various kinds, buying and reselling tiny quantities of goods, usually catering to the poorer sections of the population.

1. THE IMPORTANCE OF EMPLOYMENT IN INFORMAL SECTOR ENTERPRISES IN LDCs

It is very difficult to obtain the data which show the informalization of employment (see box 13). But cross-sectional data confirm the pre-eminent importance of employment in informal sector enterprises as a share within non-agricultural employment in LDCs, as well as the labour productivity gap between formal and informal enterprises and the extent of underemployment within labour markets. Moreover, the little evidence available on employment trends over time supports the thesis that as the share of non-agricultural employment in total employment increases, so the share of employment in informal sector enterprises within non-agricultural employment also increases.

Table 42 brings together available estimates of the importance of informal sector enterprises in LDCs in terms of employment and output. For most of the countries, employment in informal sector enterprises constitutes 70–80 per cent of non-agricultural employment. In output terms, the informal sector is not so predominant. It contributes 40–50 per cent of non-agricultural GDP within the LDCs for which data are available.

This shows that value added per worker in informal enterprises is on average lower than that in formal enterprises. The table includes imputed estimates of

Employment opportunities in formal sector enterprises are not expanding fast enough to absorb the growing non-agricultural labour force, and as a consequence the importance of employment in informal sector enterprises as a share of non-agricultural employment is increasing.

Most employment within informal sector enterprises in most of the LDCs consists of very small survivalist activities for which there are low entry requirements in terms of capital and professional qualifications.

BOX 13. INFORMAL SECTOR AND INFORMAL EMPLOYMENT

The concepts of the informal sector and informal employment are now understood in different ways (Hussmanns, 2004).

Following the definition in the 1993 System of National Accounts, the distinction between the formal and the informal sector refers to different kinds of production units or enterprises. These are not grouped according to their branch of activity (manufacturing, services) but according to certain characteristics which they have in common. The formal sector is constituted by corporations and quasi-corporations and the informal sector is constituted by household enterprises which "are not constituted as separate legal entities independently of the household or of household members that own them, and no complete set of accounts are available which could permit a clear distinction between the production activities of the enterprises and the other activities of their owners". Many informal sector enterprises are owned and operated by individual household members or by several members of the same household. But informal sector enterprises also include micro-enterprises which employ one or more employees on a continuous basis, but which are below a certain size threshold (which may be defined differently in different countries, but which is often fewer than five employees) and are not legally registered.

Informal employment is now regarded as not totally synonymous with persons working within informal sector enterprises. In 2002, the ILO adopted a concept of informal employment which included (i) persons working in informal sector enterprises, and (ii) wage employment in formal enterprises which is not regulated, stable and protected, including casual and day labourers, domestic workers, industrial outworkers (including home workers), unregistered or undeclared workers and some subset of temporary and part-time workers (Chen, 2005).

This new concept can provide a richer picture of employment relationships than a dualistic division between employment in formal and informal sector enterprises, and also a complete view of what the process of informalization of an economy entails. However, there are, in practice, too few comparative data currently available for this approach to be applied within the LDCs. The discussion in this chapter thus focuses on employment within informal sector enterprises.

For an extended discussion on the conceptualization and measurement of the informal sector and informal employment, see Charnes (1998, 2000, 2002), Schneider (2002), ILO (2002), Flodman Becker (2004), the Delhi Group on Informal Sector Statistics (2004), Hussmanns (2004), Chen (2005), and Havinga and Vu (2005). Overviews of the size of the informal sector in Africa and Asia are found in Xaba, Horn and Motala (2002) and Nural Amin (2002), whilst the relationship between gender and informal employment is discussed in ILO (2002) and UNIFEM (2005).

TABLE 42. CONTRIBUTION OF INFORMAL SECTOR TO TOTAL NON-AGRICULTURAL EMPLOYMENT AND GDP IN SELECTED LDCs

	Year of estimate	Share of informal sector employment in total non-agricultural employment (%)	Contribution of informal sector to non-agricultural GDP (%)	Memo: Imputed labour productivity gap ^a (formal sector/informal sector)
African LDCs				
Benin	1993	93	43	17.0
Burkina Faso	1992	77	..	6.0
Chad	1993	74	45	3.6
Guinea	1994–2000	72	..	..
Mali	1989	79	42	5.1
Mauritania	1989	75	14	18.6
Mozambique	1994	74	45	3.5
Niger	1995	..	59	..
United Rep. of Tanzania	1991	..	43	..
Senegal	1991	76	41	4.5
Zambia	1998	58	20	1.9
Asian LDCs				
Bangladesh	1995/96	68	..	..
Nepal	1998/99	73	..	..

Source: Based on Nural Amin 2002; Charnes 1998, 2000, 2002; Delhi Group 2004; ILO 2002.

a Imputed labour productivity gap is estimated by dividing the formal sector GDP per formal sector worker by the informal sector GDP per informal sector worker.

the average labour productivity gap outside agriculture between the formal and informal sector based on their shares in non-agricultural employment and GDP. For most countries, non-agricultural labour productivity in the formal sector is four to five times higher than in the informal sector. This productivity gap is similar in magnitude to estimates obtained through more precise survey methods in other developing countries (see ILO, 2004).

There are little data on trends over time. But in sub-Saharan Africa, Kingdon, Sandefur and Teal (2005a: 3–4) suggest that the key trends are the following: (i) the level of wage employment has increased in absolute terms, but failed to keep pace with a growing labour force, and (ii) the share of the informal sector in total employment has grown rapidly. They also find that African economies with high unemployment rates have relatively small informal sectors, a fact which suggests that both informality and unemployment are manifestations of excess labour supply.

Available data from the United Republic of Tanzania indicate that between 1991/92 and 2000/01 the non-agricultural labour force grew by 2.26 million, but wage employment outside agriculture grew by only 172,000. In Uganda between 1992 and 1999/2000, the non-agricultural labour force is estimated to have expanded by 428,000, but wage employment by 82,000 (Kingdon, Sandefur and Teal, 2005b). Charmes (2002) indicates that 93 per cent of the new employment in sub-Saharan Africa in general is informal. Ethiopia is one LDC in which open unemployment rates are very high in urban areas. Estimates suggest that 39 per cent of the urban labour force was unemployed in 1994 and 30 per cent in 1997 (Kingdon, Sandefur and Teal, 2005b). This phenomenon is related to young people searching for jobs, particularly in the public sector, with long waiting times (Serneels, 2004).

A unique longitudinal study which has examined young people's access to labour markets in 1980, 1990 and 2000 in the major cities of Burkina Faso also shows increasing informalization (Calvès and Schoumaker, 2004). In 1980, 23 per cent of male 15–24 year olds found their first paid job in formal employment. In 1990, this figure had fallen to 15 per cent, and by 2000 it was only 8 per cent. Only 5 per cent of males and 3 per cent of females found their first paid job in the private formal sector in 2000.

In Burkina Faso, only 5 per cent of males and 3 per cent of females found their first paid job in the private formal sector in 2000.

2. URBAN LABOUR MARKETS IN THE WEAK-GROWTH ECONOMIES

Recent surveys in West Africa provide a more detailed and comparable picture of urban labour markets within a number of LDCs (Brilleau, Roubaud and Torelli, 2005). The surveys were undertaken in seven countries in 2001–2002 and include information on employment conditions in the following LDC capital cities: Bamako (Mali), Cotonou (Benin), Dakar (Senegal), Lomé (Togo), Niamey (Niger) and Ouagadougou (Burkina Faso). The focus here will be on four countries which, using the classification of chapter two, can be classified as “weak-growth economies” — Benin, Burkina Faso, Mali and Senegal.

These are not the best-performing LDC economies. But since 1990, the economic performance of these countries has been comparatively good. Burkina Faso has not experienced a growth collapse; Benin and Mali grew rapidly enough in the 1990s to recover from growth collapses of the 1980s; and Senegal has grown rapidly since 1995. However, as the data below show, despite rising GDP per capita, the generation of productive and remunerative employment opportunities in the capital cities of these countries has been difficult.

With the focus on these four economies, a number of features of the labour markets of their capital cities can be underlined.

In these cities, incomes in informal sector enterprises are just over one third of those in private formal sector enterprises.

Firstly, informal enterprises are the major source of employment in all the cities, providing 77 per cent of employment on average.⁶ On average, only 12 per cent of employed persons are in private formal enterprises in the four capitals. In Cotonou, less than 10 per cent of employed persons are in private formal sector enterprises (table 43).

Secondly, average monthly incomes in informal enterprises are much lower than average incomes in private formal sector enterprises, and average incomes in private formal sector enterprises are much lower than average incomes in public administration and public enterprise. On average, incomes in informal sector enterprises are just over one third those in private formal sector enterprises, and incomes in public administration and public enterprises are about 25 per cent and 40 per cent higher respectively than in formal private sector enterprises (table 43).

TABLE 43. STRUCTURE OF EMPLOYMENT AND INCOME IN URBAN LABOUR MARKETS OF SELECTED AFRICAN LDCs, 2000–2001

	Cotonou (Benin)	Ouagadougou (Burkina Faso)	Bamako (Mali)	Dakar (Senegal)	Average
Employment (% of employed population)					
Public administration	6.3	10.4	7.5	5.7	7.5
Public enterprises	2.2	2.3	2.5	1.8	2.2
Formal private enterprises	9.9	11.8	11.4	15.0	12.0
Informal Private enterprises	80.3	73.4	77.5	76.4	76.9
Entreprises Associatives	1.3	2.1	1.1	1.1	1.4
Income (monthly average in 1000 CFA franc)^a					
Public administration	89.5	94.7	89.4	149.7	105.8
Public enterprises	122.2	100.0	140.2	134.6	124.3
Formal private enterprises	65.6	73.5	92.6	111.0	85.7
Informal private enterprises	26.5	20.4	37.5	38.4	30.7

Source: Based on Brilleau, Roubaud and Torelli (2005).

Note: The private formal sector includes private formal enterprises and associated enterprises.

a Communaute financière africaine franc.

TABLE 44. DISTRIBUTION OF INCOME AMONGST DIFFERENT OCCUPATIONAL GROUPS IN URBAN LABOUR MARKET IN SELECTED AFRICAN LDCs, 2000–2001
(Average monthly income in CFA 1,000)

	Cotonou (Benin)	Ouagadougou (Burkina Faso)	Bamako (Mali)	Dakar (Senegal)	Average
Public sector					
Managers	124.3	135.1	119.6	201.8	145.2
Employees/workers	64.0	66.0	62.7	99.3	73.0
Apprentices/family help	25.3	30.5	35.3	57.6	37.2
Formal private sector					
Managers	97.8	172.5	157.6	238.6	166.6
Employees/workers	49.9	55.0	52.4	87.9	61.3
Apprentices/family help	17.8	19.8	27.3	40.1	26.3
Informal sector					
Managers	56.9	59.0	77.0	110.8	75.9
Self-employed	32.3	23.2	40.2	50.0	36.4
Employees/workers	29.6	28.7	39.5	44.3	35.5
Apprentices/family help	3.7	8.4	11.1	12.7	9.0

Source: As for table 43.

Thirdly, there is much variation between monthly incomes within the different sectors according to occupational status (table 44). Managers within the formal sector have the highest monthly incomes in all the cities. The self-employed within the informal sector have incomes which are roughly half those of employees in private sector enterprises, and workers and employees in informal sector enterprises earn less than that in all the cities except Ouagadougou. The level of incomes within the informal sector means that there is a close association between employment in informal sector enterprises and urban poverty.

Fourthly, unemployment exists in all four cities. According to the ILO definition of unemployment, the average unemployment rate is 10 per cent. Ouagadougou has the highest unemployment rate (15.4 per cent) and Cotonou (5.5 per cent) the lowest. Using a broader definition of unemployment which includes discouraged workers, the average unemployment rate is 15 per cent, with more than one in five of the economically active population in Ouagadougou unemployed (table 45).

Finally, there are very high rates of underemployment in all four cities. With regard to visible underemployment, measured by those who work less than 35 hours per week, 14 per cent of employed persons are underemployed. In Ouagadougou, the visible underemployment rate is 10.6 per cent of employed persons, whilst in Bamako it is 17.1 per cent. Underemployment can also be invisible in the sense that people work long hours but with unusually low productivity. Within the surveys, an attempt is made to estimate such "invisible underemployment" by estimating the proportion of employed persons with incomes below the national minimum wage. According to this definition, 58 per cent of employed persons are on average invisibly underemployed in the four cities, ranging from a high of two thirds of employed persons in Ouagadougou to a low of 45 per cent in Bamako (table 45).

When these estimates are added to the earlier estimates of unemployment, it is apparent that for the four capital cities in these weak-growth economies two thirds of the economically active population (employed persons plus unemployed) are either unemployed or invisibly underemployed. In the best case, Bamako, six out of ten economically active persons are either unemployed or underemployed; in the worst case, Ouagadougou, almost three quarters of the economically active population are in this situation.

It is possible to quibble over definitions of unemployment and underemployment. However, what these statistics lay bare is the fact that underemployment and very low incomes are major problems in these urban labour markets, and this situation is closely related to lack of formal sector employment.

It is apparent that for the four cities in these weak-growth economies two thirds of the economically active population (employed persons plus unemployed) are either unemployed or invisibly underemployed.

TABLE 45. UNEMPLOYMENT AND UNDEREMPLOYMENT IN URBAN LABOUR MARKETS OF SELECTED AFRICAN LDCs, 2000–2001
(Percentage of employed population)

	Cotonou (Benin)	Ouagadougou (Burkina Faso)	Bamako (Mali)	Dakar (Senegal)	Average
Unemployment rate:					
ILO definition	5.5	15.4	7.1	11.7	9.9
Enlarged definition	6.8	22.4	12.5	18.9	15.2
Visible underemployment rate	13.4	10.6	17.1	16.2	14.3
Invisible underemployment rate	61.1	66.5	45.4	57.8	57.7
Global Unemployment Rate	69.2	73.0	58.8	69.4	67.6

Source: As for table 43.

Note: For definition of variables, see text.

These case studies have been highlighted here as they are regarded as being typical of economies which have experienced weak growth. As the data in chapter 2 showed, the growth performance of many of the LDCs has been poorer than that of these case-study countries, and thus one may infer that the labour market conditions are likely to be worse. However, there are a few LDCs which have experienced higher growth. In these economies, it is possible to create a virtuous circle between expansion of the formal sector and a shift towards higher productivity and more remunerative activities in the informal economy. The nature of this virtuous circle, which is closely related to the opportunities created by expanding demand, will be examined in chapter 7.

In African LDCs, 46 per cent of the increase in the economically active population during 2000–2010 is expected to occur outside agriculture, whilst in Asian LDCs other than Bangladesh, 45 per cent of the increase will occur outside agriculture.

E. Conclusions

The basic message of this chapter is that the present decade is a decade of transition for many LDCs. In the past, the growth of the labour force in agriculture was always greater than the growth of the labour force outside agriculture. But in 2000–2010, the growth of the economically active population seeking work outside agriculture is expected to exceed the growth of the economically active population seeking work within agriculture in 24 out of 50 countries. For the LDC group as whole, this is the first decade in which the growth of the economically active population outside agriculture will exceed the growth of that in agriculture. The overall trend is strongly influenced by what is happening in Bangladesh. But, in African LDCs, 46 per cent of the increase in the economically active population is expected to occur outside agriculture, whilst in Asian LDCs other than Bangladesh, 45 per cent of the increase will occur outside agriculture.

This transition is associated with increasing urbanization within LDCs. However, it also reflects the fact that the traditional mechanism through which the increasing labour supply has been employed within LDCs is becoming more and more circumscribed. That mechanism has consisted in bringing more land into agricultural cultivation. In the past, this has made possible the productive absorption of labour, even though agricultural productivity has been increasing very slowly. However, there is a general tendency for agricultural land per worker to be decreasing and a larger share of the population to be focused on fragile lands. Moreover, even in land-abundant countries, inequalities in land access mean that the poorest smallholders have little access to land. This means that whatever the “pull” factors driving urbanization, there is going to be an increasing number of “push” factors as more and more people find it difficult to achieve a satisfactory living from agriculture.

LDCs need to shift from an extensive pattern of agricultural growth (based on expansion of the area of cultivation) to an intensive pattern of agricultural growth based on increasing yields and sustainable intensification.

There remain under-exploited agricultural resources in many of the LDCs (for example, pharmaceutical drugs from plants and the potential to produce biofuels; see Sachs, 2005). The agricultural productivity gap between LDCs and other developing countries also means that there are major opportunities to increase productivity in agriculture. Against this background many LDCs need to shift from an extensive pattern of agricultural growth (based on expansion of the area of cultivation) to an intensive pattern of agricultural growth based on increasing yields and sustainable intensification. But this will be hard to achieve amongst the asset-poor smallholders, as it requires more working capital and private investment by smallholders. It will also require increased public investment in better rural infrastructure and agricultural research and development, as well as improved markets for production inputs, agricultural output and seasonal finance. Moreover, it will be necessary to create more

productive employment outside agriculture, in both rural and urban areas, as well.

The problem facing most LDCs is that not only are they finding it difficult to increase agricultural productivity, but also that they have a severe problem in absorbing the expanding labour force outside agriculture productively. A general tendency in most LDCs is that labour productivity outside agriculture is declining. This reflects the inability to create sufficient formal jobs and the proliferation of employment in marginal petty trade and services activities. The labour force is growing outside agriculture, but it is not being productively employed. The key policy issue which arises is: can current policies rectify these trends and, if not, what is the alternative?

Sustainable agricultural intensification and the creation of productive off-farm employment will require increased capital accumulation and technological learning as well as innovation in new sectors to create structural change. The next three chapters focus on three key constraints on such development of productive capacities — infrastructure, institutions, and the lack of incentives provided by effective demand — before turning to the policy implications.

Sustainable agricultural intensification and the creation of productive off-farm employment will require increased capital accumulation and technological learning as well as innovation in new sectors to create structural change.

Notes

1. For a discussion of the severe limitations of data on labour supply in sub-Saharan Africa, see Sender, Cramer and Oya (2005). With regard to Asia, the Asian Development Bank (2005: 5) emphasizes that the main problem there is lack of comparability of data across countries owing to differences in the scope and coverage of labour force surveys, the reference population, the reference period for which labour force status is determined, and the definitions of labour force status.
2. This reflects the size of Bangladesh which, in 2000, accounted for 22 per cent of the total labour force.
3. Atkinson (2005), using data of the University of Kassel ranking 140 countries according to the proportion of their territory suffering from severe water stress, indicates that most LDCs rank low on the list. Exceptions are Nepal, Niger, Sudan, Somalia, Ethiopia and Bangladesh.
4. For a full discussion of trends, see Crawford et al. (2003).
5. ILO has initiated a number of studies which explore the nexus between growth, employment and poverty in a programme of work which is ongoing and, in part, being conducted in collaboration with UNDP and supported by SIDA. These studies include a number of LDCs, notably Bangladesh (Muqtada, 2003; Rahman and Islam, 2003; Islam, 2004), Ethiopia (Demeke, Guta and Ferede, 2003; Denu, Tekeste and van der Deijl, 2005), Uganda (Kabann et al., 2003) and Mozambique (Bruck and van der Broeck, 2006). Comparative analysis remains difficult because of differences in definitions and comparability between labour force surveys (see Khan, 2005). But the evidence of the country-level studies confirms the importance of the creation of productive employment as an essential link between economic growth at the macro-level and poverty reduction at the household level (Islam, 2004; Osmani, 2005).
6. Informal sector enterprises are defined in this context as production units without formal administrative registration or formal written accounts.

References

- Acharya, S. (2004). Measuring and analyzing poverty (with a particular reference to the case of Nepal). *European Journal of Comparative Economics*, 1 (2): 195–215.
- André, C. and Platteau, J.P. (1996/1997). Land tenure under unendurable stress: Rwanda caught in the Malthusian trap. *Cahiers de la Faculté des Sciences Economiques et Sociales de Namur, Série Recherche No. 164, Namur, Belgium.*
- Asian Development Bank (2005). *Labor Markets in Asia: Promoting Full, Productive, and Decent Employment.* Manila.
- Atkinson, A. (2005). Current state and recent trends in natural resource endowment in the least developed countries. Background paper prepared for the *Least Developed Countries Report 2006*, UNCTAD, Geneva.
- Barrett, C.B., Carter, M.R. and Little, P. D. (2006). Understanding and reducing persistent poverty in Africa: Introduction to a special issue. *Journal of Development Studies.*
- Boreak, S. (2000). Land ownership, sales and concentration in Cambodia: A preliminary review of secondary data and primary data from four recent surveys. Cambodia Development Resource Institute, Working Paper 16.
- Brilleau, A., Roubaud, F. and Torelli, C. (2005). L'emploi, le chômage et les conditions d'activité. Enquête 1-2-3 phase 1, STATECO 99: 41–86.
- Bruck, T. and van der Broeck, K. (2006). Growth, employment and poverty in Mozambique. *Issues in Employment and Poverty Discussion Paper No. 21*, ILO, Geneva.
- Calvès, A.E. and Schoumaker, B. (2004). Deteriorating economic context and changing patterns of youth employment in urban Burkina Faso: 1980–2000. *World Development*, 32(8): 1341–1354.
- Charmes, J. (1998). Women working in the informal sector in Africa: New methods and new data. Paper prepared for the United Nations Statistics Division, the Gender and Development Programme of the UNDP and the project "Women in Informal Employment: Globalizing and Organizing" (WIEGO).
- Charmes, J. (2000). The contribution of informal sector to GDP in developing countries: Assessment, estimates, methods, orientations for the future. 4th Meeting of the Delhi Group on Informal Sector Statistics, Geneva, 28–30 August 2000.
- Charmes, J. (2002). Estimation and survey methods for the informal sector. University of Versailles, Versailles, France.
- Chen, M.A. (2005). Rethinking the informal economy: Linkages with the formal economy and the formal regulatory environment. Study presented at the EGDI-WIDER Conference on Unlocking Human Potential — Linking the Informal and Formal Sectors, Helsinki, 17–18 September 2004. Research Paper No. 2005/10. EGDI and UNU-WIDER.

- Crawford, E. et al (2003). Input use and market development in sub-Saharan Africa: An overview. *Food Policy*, 28: 277–292.
- Delhi Group on Informal Sector Statistics (2004). Sub-Committee on Statistics, First Session, Bangkok, 18–20 February 2004.
- Demeke, M. Guta, F. and Ferede, T. (2003). Growth, employment, poverty and policies in Ethiopia. *Issues in Employment and Poverty Discussion Paper No. 21*, ILO, Geneva.
- Denu, B., Tekeste, A. and van der Deijl, H. (2005). Characteristics and determinants of youth unemployment, underemployment and inadequate employment in Ethiopia. *Employment Strategy Papers, 2005/07*, ILO, Geneva.
- Ellis, F. (2004). Occupational diversification in developing countries and the implications for agricultural policy. Programme of Advisory and Support Services to DFID (PASS), Project No. WB0207.
- Ellis, F. (2005). Small-farms, livelihood diversification and rural-urban transitions: Strategic issues in sub-Saharan Africa. Paper prepared for Research Workshop on the Future of Small Farms organized by the International Food Policy Research Institute (IFPRI) and the Overseas Development Institute (ODI), London, 26–29 June 2005.
- FAO (2002). The role of agriculture in the development of LDCs and their integration into the world economy, FAO, Rome.
- Flodman Becker, K. (2004). The informal economy. Fact finding study. Department for Infrastructure and Economic Co-operation, SIDA, Sweden.
- Gore, C.G. (1994). Social exclusion and Africa south of the Sahara: A review of the literature. International Institute for Labour Studies Discussion Paper 62, ILO, Geneva.
- Gurrieri, A. and Sáinz, P. (2003). Employment and structural mobility: Revisiting a Prebischian theme. *CEPAL Review*, 80, August 2003, ECLAC, Santiago.
- Government of Haiti (2005). Développement rural en Haïti: Diagnostic et Axes d'Intervention – Rapport de Synthèse. Report prepared by the Ministère de l'Agriculture, des Ressources Naturelles et du Développement Rural and by the World Bank.
- Havinga, I. and Vu, V. (2005). Informal sector in the 1993 system of national accounts. Discussion paper prepared for the UNSD/ESCAP Workshop on the 1993 SNA Update, Bangkok, April 2005. ESCAP, Bangkok.
- Hossain (2004). Poverty alleviation through agriculture and rural development in Bangladesh. Centre for Policy Dialogue, Paper 39. Dhaka, Bangladesh.
- Hussmanns, R. (2004). Measuring the informal economy: From employment in the informal sector to informal employment. Working Paper No. 53, Bureau of Statistics, ILO, Geneva.
- ILO (2002). Women and men in the informal economy: A statistical picture. Employment Sector, International Labour Office, Geneva.
- ILO (2004). *World Employment Report 2004-05, Employment, Productivity and Poverty Reduction*, International Labour Office, Geneva.
- Islam, R. (2004). The nexus between economic growth, employment and poverty reduction: An empirical analysis. *Issues in Employment and Poverty Discussion Paper No. 14*, ILO, Geneva.
- Jayne, T.S. et al. (2003). Smallholder income and land distribution in Africa: Implications for poverty reduction strategies. *Food Policy*, 28, 253–275.
- Kabann, I.B. et al. (2003). Economic growth, employment and pro-poor policies in Uganda. *Issues in Employment and Poverty Discussion Papers, No. 16*, ILO, Geneva.
- Khan, A.R. (2005). Growth, employment and poverty: An analysis of the vital nexus based on some recent UNDP and ILO/SIDA studies. *Issues in Employment and Poverty Discussion Paper No. 19*, ILO, Geneva.
- Kingdon, G., Sandefur, J. and Teal, F. (2005a). Labour market flexibility, wages and incomes in sub-Saharan Africa in the 1990s. Centre for the Study of African Economies, Department of Economics, University of Oxford, UK.
- Kingdon, G., Sandefur, J. and Teal, F. (2005b). Patterns of labour demand in sub-Saharan Africa: A review paper. Africa region — employment issues — regional stocktaking review. Centre for the Study of African Economies, Department of Economics, University of Oxford, UK.
- Muqtada, M. (2003). Promotion of employment and decent work in Bangladesh: Macroeconomic and labour policy considerations. Employment Strategy Department, International Labour Organization, Geneva.
- Nural Amin, A.T.M. (2002). The informal sector in Asia from the decent work perspective. *Series on the Informal Economy, 4*, ILO, Geneva.
- Osmari, S.R. (2005). *The Employment Nexus between Growth and Poverty: An Asian Perspective*. SIDA Studies, Stockholm.
- Rahman, R.I. and Nabiul Islam, K. (2003). Employment poverty linkages: Bangladesh. *Issues in Employment and Poverty Discussion Paper No. 10*, ILO, Geneva.
- Ranis, G. and Stewart, F. (1999). V-goods and the role of the urban informal sector in development. *Economic Development and Cultural Change*, 47(2): 259–288.

- Ros, J. (2000). *Development Theory and the Economics of Growth*. University of Michigan Press, Ann Arbor, MI, USA.
- Sachs, I. (2005). Expensive oil: For least developed countries a Quidproquo of a curse and blessing in disguise. Background paper prepared for the *Least Developed Countries Report 2006*, UNCTAD, Geneva.
- Schneider, F. (2002). Size and measurement of the informal economy in 110 countries around the world. Paper presented at a Workshop of the Australian National Tax Centre, Canberra, Australia, 17 July 2002.
- Sender, J., Cramer, C. and Oya, C. (2005). Unequal prospects: Disparities in the quantity and quality of labour supply in sub-Saharan Africa. African Studies Centre Working Paper 62, Leiden.
- Serneels, P. (2004). The nature of unemployment in urban Ethiopia. Centre for the Study of African Economies, Oxford University, UK.
- UNCTAD (2002). *The Least Developed Countries Report 2002: Escaping the Poverty Trap*. United Nations publication, sales no. E.02.II.D.13, Geneva and New York.
- UNDP (2004). *The Macro-Economics of Poverty Reduction in Nepal*, New York.
- UNIFEM (2005). *Progress of the World's Women: Women, Work and Poverty*, New York, UNIFEM.
- World Bank (2003). *World Development Report 2003: Sustainable Development in a Dynamic World*. Washington, DC.
- Xaba, J., Horn, P. and Motala, S. (2002). Informal sector in sub-Saharan Africa. Series on the Informal Economy, 10, ILO, Geneva.