

Report of the ILO for the  
Fourth UN Conference on the Least Developed Countries  
9-13 May 2011 – Turkey

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**Growth, Employment and Decent Work  
in the Least Developed Countries**

INTERNATIONAL LABOUR OFFICE GENEVA

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## Abbreviations

ADB	Asian Development Bank
AEC	African Economic Conference
AICD	Africa Infrastructure Country Diagnostic
AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
AU	African Union
AYS	Average Years of Schooling
BIDPA	Botswana Institute for Development Policy Analysis
CBO	Community-Based Organization
CBT	Community-Based Training
CDP	Committee for Development Policy
CDPR	Centre for Development Policy and Research
CEB	Corporate Executive Board
CEPR	Centre for Economic Policy Research
CISEP	Centres for Informal Sector and Employment Promotions (Zambia)
CPIA	Country Policy and Institutional Assessment
CPS	Current Population Survey
DESA	Department of Economic and Social Affairs (United Nations)
DFID	Department For International Development (United Kingdom)
DWCP	Decent Work Country Programme
ECA	Economic Commission for Africa
ECOSOC	Economic and Social Council (United Nations)
EDPRS	Economic Development and Poverty Reduction Strategy
EGS	Employment Guarantee Scheme
EIA	Employment Impact Assessment
EPA	Economic Partnership Agreement
EPL	Employment Protection Legislation
EPWP	Expanded Public Works Programme (South Africa)
EU	European Union

FDI	Foreign Direct Investment
FAO	Food and Agriculture Organization
GER	Green Economy Report
GDP	Gross Domestic Product
GNI	Gross National Income
HIC	High-Income Country
HIPC	Heavily Indebted Poor Countries
HIV	Human Immunodeficiency Virus
HOS	Heckscher-Ohlin-Samuelson
ICT	Information and Communications Technology
IFI	International Financing Institutions
IILS	International Institute for Labour Studies
IMF	International Monetary Fund
IPCC	Intergovernmental Panel on Climate Change
IPEP	Innovations in Public Employment Programmes
IRAP	Integrated Rural Accessibility Planning
IT	Information Technology
LEAP	Livelihood Empowerment Against Poverty (Ghana)
LDC	Least Developed Country
LF	Labour Force
LIC	Low-Income Country
LIPW	Labour-Intensive Public Works (Ghana)
MDG	Millennium Development Goal
MDRI	Multilateral Debt Relief Initiative
MFI	Microfinance Institution
MFN	Most Favoured Nation
MIC	Middle-Income Country
MIRAB	Migration, Remittances, Aid and Bureaucracy
MPRA	Munich Personal RePEc Archive
MSME	Micro-, Small- and Medium-sized Enterprise
NBER	National Bureau of Economic Research

NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
NREGA	National Rural Employment Guarantee Act
NREGS	National Rural Employment Guarantee Scheme
NSPS	National Social Protection Strategy (Ghana)
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OHCHR	Office of the High Commissioner for Human Rights
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
PPP	Purchasing Power Parity
PEP	Public Employment Programme
PIP	Public Investment Programme
PRS	Poverty Reduction Strategy
PSNP	Productive Safety Net Programme (Ethiopia)
PWP	Public Works Programmes
R&D	Research and Development
SA	South Asia
SAP	Social Adjustment Programme
SME	Small and Medium Enterprise
SOAS	School of Oriental and African Studies
SPF	Social Protection Floor
SSA	Sub-Saharan Africa
STED	Skills for Trade and Economic Diversification
TREE	Training for Rural Economic Empowerment
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDAF	United Nations Development Assistance Framework
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNEP	United Nations Environment Programme

UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNODC	United Nations Office on Drugs and Crime
UN-OHRLLS	United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States
UNRWA	United Nations Relief and Works Agency
WDI	World Development Indicator
WEO	World Economic Outlook
WFP	World Food Programme
WHO	World Health Organization
WMO	World Meteorological Organization
WTO	World Trade Organization

## Preface

This report was prepared under the general guidance of José Manuel Salazar-Xirinachs, Executive Director of the Employment Sector of the International Labour Organization, and Moazam Mahmood, Director of the Department for Economic and Labour Market Analysis.

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Duncan Campbell, Director of Policy Planning in the Employment Sector, contributed the work on the Millennium Development Goals (MDGs). Research assistance was provided by Giovanna Centonze.

Iyanatul Islam, Senior Economist in the Employment Policy Department, and Sarah Anwar, Technical Officer in the Employment Policy Department, contributed the chapter on macroeconomic policies to promote job creation and poverty reduction in LDCs. Research assistance was provided by Ishraq Ahmed.

Marion Jansen, Senior Specialist for Trade and Employment, contributed the chapter on harnessing trade for growth, employment and poverty reduction. Erik von Uexküll significantly contributed to the writing of the chapter.

Per Ronnas, Senior Employment and Development Specialist, contributed the chapter on what a country produces matters: agriculture, industry and services.

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Terje Tessem, Chief of the Employment-intensive Investment Branch in the Employment Policy Department, contributed the chapter on the role of public investments and public employment programmes (PEPs).

Irmgard Nübler, Senior Economist in the Department for Economic and Labour Market Analysis, contributed the chapter on promoting catching-up growth and productive transformation in LDCs: a new approach.

Christina Behrendt, Social Security Specialist in the Social Security Department, contributed the chapter on social protection: investing in people.

Cleopatra Doumbia-Henry, Director of the International Labour Standards Department, contributed the basic diagnosis and policy guidelines on international labour standards. The report benefited from the collaboration and comments from Aurelio Parisotto, Senior Economist in the Department for Policy Integration; Jane Stewart, Director of the ILO Office for the United Nations New York; and Amber Barth, Program Officer at the ILO Office for New York. Hwa Lee compiled the report. Kevin Cassidy was responsible for printing. The support of the ILO-Norway project on Policy Coherence for Growth, Employment and Decent Work for the reproduction of the report is gratefully acknowledged.



## Decent work in least developed countries

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The Fourth UN Conference on Least Developed Countries (LDCs) that opens in Istanbul on 9 May 2011 comes at a special juncture. Countries, developing and developed, are under pressure to recover from a succession of global crises that are leaving deep scars on jobs and incomes. As they struggle to sustain recovery, policy-makers are revisiting conventional approaches to economic and social policy, searching for innovative and pragmatic solutions. This ILO report reviews trends in growth, employment and decent work in LDCs, highlighting challenges and opportunities for structural transformation, job creation and poverty eradication. It offers a portfolio of policy options to be tailored to country needs and circumstances. It aims at contributing – within the wider debate on reshaping the development agenda – to the effort to forge a stronger partnership for productive transformation and social progress in LDCs.

The point of departure is the recognition that, after many years of lost ground, the episodes of high growth many LDCs experienced in the decade prior to the global slump were producing insufficient economic and social returns. Very few LDCs are closer to graduation. For most, production capacity in manufacturing and agriculture remains limited, exports are more concentrated in a narrow range of products, and vulnerability to external shocks is very high. The underlining labour market conditions are of special concern. Over the 2000–09 period, employment in LDCs grew at an annual average rate of 2.9 per cent, slightly above population growth but much weaker than gross domestic product (GDP) growth. Most of the increase took place in the services sector, with industry accounting for a mere 10 per cent of total employment in 2008 from 8 per cent in 2000. The share of wage and salary workers increased slightly, from 14 per cent in 2000 to 18 per cent in 2008, but the large majority of workers remain trapped in vulnerable forms of employment that cannot lift them above the poverty line. Unemployment remained constant over the decade but the global economic crisis took its toll, especially on young workers and women workers, jeopardizing hard-earned progress in human development and women's empowerment. The primary labour market challenge in the LDCs is not unemployment but productive employment and decent work for the large numbers of working poor. This is the main obstacle to the efforts to achieve the Millennium Development Goals and to set the LDCs on a sustainable development route.

The report recognizes the potential for economic improvement in the LDCs. Some better fundamentals are in place as a result of past investments in education and health, a record of macroeconomic stability, less pressing external debt, and improved governance and political stability. The wide gap with countries at the technological frontier provides opportunities for fast learning and catching up. In fact, islands of success are emerging across countries introducing robust agricultural policies in Africa or, even faster, in Asia where high productivity in agriculture combines with exports of labour-intensive manufacturing products. Learning lessons from success is critical in order to design and implement new policies to facilitate large-scale access to productive and remunerative employment and, by this means, to leverage the benefits of the demographic dividend and realize the LDCs' potential for growth.

The policy challenge ahead is twofold: (a) to accelerate and sustain economic growth in the context of an increasingly volatile international environment; and (b) to make growth more

inclusive and job-rich, enhancing the resilience of local households and local enterprises and upholding social and political stability. The report's diagnostics suggest that what countries produce and export matters. The composition of output is of the first order of importance in accelerating and sustaining growth. Successful structural transformation to a diversified set of products for export, however, does not result automatically from trade and financial liberalization and deregulation; nor, alone, is it sufficient in order to generate the adequate number of jobs. A coherent set of policies in different but complementary areas is required. The report spells out some main elements.

A first element concerns macroeconomic frameworks that are more friendly to job creation and poverty reduction, with monetary policies going beyond inflation targeting and being more focused on financial inclusion of small and medium enterprises (SMEs), capital account management and maintaining competitive and stable real exchange rates to stimulate exports. In terms of fiscal policy, the report argues that it is critical to generate space for public investment and social transfers by mobilizing resources within a "fiscal diamond" that encompasses domestic tax revenue, expenditure reprioritization and efficiency, deficit financing and official development assistance (ODA), including debt relief. Expanding fiscal space in this way is a prerequisite to achieve internationally agreed development goals and the MDGs.

Second, higher levels of public investment should target critical bottlenecks in infrastructure, finance, skills and other inputs, crowding in private investments by means of addressing coordination problems and barriers that discourage private enterprises from entering new industries and new technologies, including green production. The long-standing neglect of agriculture should be reversed, especially in African LDCs. Parallel to an intensification of agriculture, an increase in non-farm wage employment and successful entrepreneurship is a core component. Achieving a well-integrated domestic economy, with strong inter-sectoral and rural-urban linkages, is key to set the LDCs on a path of sustainable and job-rich growth.

Third, labour market and social policies are essential complementary tools, given widespread poverty and the dual structure of the labour market. Policies are needed to encourage the transition from the informal to the formal economy, to support micro- and small- and medium-sized enterprises, and to protect the incomes of the most vulnerable groups. The employment generated by public investment in infrastructure can be increased by a factor of three to five by using local resource-based methods compared to conventional technologies. Innovative programmes such as employment guarantee schemes can provide poor workers with a minimum employment floor while accounting for improved local infrastructure and some adaptation to climate change. Good design is a means to minimize moral hazard and the risk of long-term dependence on public transfers.

Fourth, the report notes that a range of labour market institutions are in place in LDCs, mainly concerning employment protection legislation and minimum wages. However, they apply only to a minority of workers in the formal economy and often are very poorly enforced. Available surveys show that labour market regulation is not considered a major constraint to enterprise development in LDCs. Nonetheless, efforts are needed to reduce unnecessary administrative hurdles and costs, and to encourage the formalization of informal enterprises, whilst preserving the original purpose of labour law and institutions. Minimum wage legislation, in particular, is a proven means to ensure that all workers receive at least a salary allowing a decent life for their

families. Collective bargaining and freedom of association, organization and representation of workers and of employers, and the strengthening of cooperatives and community organizations, have important developmental impacts. Representative and accountable national organizations of workers and employers can play a role in developing policies and building a strong sense of shared and national consensus.

Fifth, the gradual introduction of a basic set of essential social transfers and services is part and parcel of a sustainable growth and development framework. Incremental national resources, complemented by international support, can gradually put in place a basic floor of social protection, to uphold productive capacities and the economic and social resilience of people with large positive economic benefits. The report shows evidence of the positive economic impact of improved social protection through labour market interventions, cash transfer schemes and public employment programmes targeting vulnerable groups of women and of youth. Even at very low levels of financing, LDCs can chart a course of inclusive growth combining more productive employment and wider social protection coverage.

To promote such an agenda for structural transformation and decent work is a formidable challenge, given the many constraints on the capabilities and resources of the LDCs. The report emphasizes that the policy mix should be adapted to national circumstances and priorities. It calls for shaping a long-term national development vision that encompasses the central goals of productive employment and decent work and it is widely shared through social dialogue. This provides the necessary compass to monitor progress and to enhance coherence and complementarities between measures in different policy domains.

The report acknowledges that, within a framework of mutual accountability, international assistance and regional cooperation are fundamental, not only through trade concessions and improved market access but also through stable and reliable ODA levels; adequate concessional finance and debt relief to improve fiscal space and public spending; and technical assistance to develop local capacities to design and manage effective economic and social programmes.

The ILO has a wealth of distinctive experience and knowledge in the area of employment and decent work. It is ready to partner with LDCs, donors and other international and regional organizations in a new era of growth, development and social justice.

A handwritten signature in black ink, appearing to read 'Juan Somavia', with a large, sweeping flourish on the left side.

Juan Somavia  
Director-General



## Introduction

This report examines the relationship between GDP growth, employment, and decent work in the LDCs, within a longer-term perspective, but focusing on the last decade. The report addresses a number of key issues in growth and employment across the three main regions of Africa, Asia and the Island countries.

It finds growth in the last decade to be high, but volatile, because it has been based on exports of primary commodities rather than a diversified production structure. Lack of diversification is reflected in weaker development of manufacturing, and perpetuation of low-productivity agriculture and cereal deficits. Investment rates have picked up, but from a low base, perpetuating reliance on inflows and ODA. Macro fundamentals improved. The opening chapter on growth, and subsequent chapters on macro policy, trade and sectoral growth address these issues. There have been massive deficits in public infrastructure, education and skills, constraining a more sustainable and balanced growth strategy, as the chapters on public investment and productive transformation argue.

As a result of unbalanced growth and an uncertain policy environment, there has been a weak increase in productive employment, especially for young people. The opening chapter on growth and employment, and the chapter on labour market institutions and informality show the persistence of high levels of working poverty, vulnerable employment, especially for women, informality and low productivity. The need for social protection and a social floor is dire, as much for protection as for development, as the chapter on social protection highlights.

The report is very conscious of the governance and public service delivery deficits, well analysed in the UNCTAD 2009 report on LDCs. The report is also only able to address one aspect of climate change, through its implications for agriculture, in the sectoral chapter.

A key feature of this report is its recognition of the heterogeneity of the LDCs, across the regions of Africa, Asia and the Islands, and the granularity at the country level. Some regions and some countries have done better than others in their patterns of growth, investment, productive diversification and transformation, employment, poverty, vulnerability, social protection, and fragility. Based on Justin Lin's axiom of countries planning their pattern of growth and development on other countries perceived to be a generation ahead, LDCs at least need to model themselves on their peers who are currently doing better. Therefore, each chapter in this report brings out relative success in these areas of growth and employment, for the conclusions chapter to base its policy guidelines on.



## Chapter 1: Growth, employment and decent work in the least developed countries

### 1.1 The broad pattern of growth, employment and decent work in LDCs

Forty-nine countries are currently designated by the UN as LDCs. Thirty-three of them fall in the African region, 11 fall in Asia and five are islands. As appendix table A1 shows, they are quite heterogeneous in terms of their economic performance and structure. This chapter finds a broad pattern in the nature of GDP growth and associated indicators of employment and decent work across the LDCs.

After a prolonged slump, GDP growth across LDCs picked up to average 7 per cent per annum over 2000–07. There was a surge in GDP growth from 2004 to 2007, followed by global financial crisis-led downturn. While GDP growth picked up during the past decade, it was also very volatile. This volatility is traced to the nature of the growth, which was led by commodity exports and their exogenously given prices. The manufacturing sector barely increased its share in GDP. The growth was led by exports, while the domestic market shrank as a share of GDP, as did much-needed government expenditures. Investment did pick up from a low base, on the strength of domestic savings and some foreign direct investment (FDI), while reliance on ODA persisted. Governance of macro fundamentals also improved, with inflation nudging down on average, along with budgetary and current account deficits.<sup>1</sup>

But this pattern of GDP growth varied significantly across the three regions. The volatility in African LDCs' GDP growth was much greater than for Asian LDCs, while the Island LDCs remained on a very low growth path. A major factor that accounts for the difference between African and Asian LDCs is the relatively higher reliance of African LDC growth on commodity exports, and the relatively higher reliance of Asian LDCs on manufacturing exports.

This commodity-led export growth is the main factor behind the weak indicators of employment and decent work. Registered unemployment, while a second-best indicator of labour market conditions in low-income countries, barely dropped with the growth spurt. The working poor, a better indicator, dropped but still remained at very high levels. Wage and salary employment shares inched up, but still remained at very low levels. Vulnerable employment inched down accordingly, from very high levels, with women preponderantly trapped in it. And the crisis hit women and youth hardest.

The regional variation in GDP growth is also significantly reflected in some indicators of employment and decent work. Unemployment levels and the working poor have been in a lower band range for Asian LDCs.

Finally, the MDGs will not be met by the current growth and employment trajectory. For the MDG Employment Indicator 1A to be met, would require a doubling of the growth rate of non-poor productive employment, i.e. the employment providing income at least equivalent to the poverty threshold of US\$1.25 a day.

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<sup>1</sup> The World Bank acknowledges the significant progress made by LDCs in improving macro fundamentals. See the background paper prepared by the World Bank for the G-20 Leaders' Meeting, September 2009.

If the LDCs are reshuffled, not into regional groups, but into high-growth and low-growth clusters, the preponderant pattern remains. The high-growth countries tend to be commodity export led for African LDCs with weaker employment indicators, and for Asian LDCs manufacturing export led with better employment indicators.

The policy implications for changing the nature of this growth, and improving its employment and decent work impact, suggest four priorities. Product diversification from commodities to manufacturing is needed to generate more employment. Investment has to be raised in manufacturing, and agriculture, to raise productivity and incomes. The high proportion of the working poor needs to be addressed through a combination of increased private sector investment for more productive employment, and increased public sector investment for an employment and social floor. The enhanced private sector investment has to be based on higher domestic savings, and the enhanced public sector investment has to be based on raising the revenue base. The appropriate macro policy framework for this undertaking is addressed in the next chapter.

## **1.2 GDP growth**

### ***A longer-term perspective***

In the 1970s most LDCs, with the exception of a few small island countries in the Pacific, were still in a very early phase of the demographic transition. As mortality began to fall, while fertility remained high, rapid population growth characterized most of the LDCs over the past 30–40 years. This served to bring down per-capita growth and as a formidable constraint on poverty reduction.

Economic vulnerability and high volatility of growth has been a defining characteristic of the LDCs. Social unrest, at times regressing into civil war and state failure have, at times, more often in the past than at present, imposed a binding constraint on development of any kind. Most of the LDCs have witnessed major policy shifts over the past decades. Development strategies characterized by substantial state interventions in the economy, highly regulated external trade and often a strong presence of public enterprises and parastatals in the economy predominated in many, if not most, LDCs until the 1980s. In most LDCs, structural adjustment programmes (SAPs) in the 1980s and 1990s, based on the Washington Consensus and with deregulation and rapid external and internal market liberalization as main pillars, implied a far-reaching shift of policies. Some two decades later, disenchantment with the failure of SAPs to deliver on poverty reduction in particular, but also on economic growth, has in recent years led to a new shift in the development paradigm, towards assigning a more important developmental role to the State. Throughout much of the 1990s the accumulation of increasingly unmanageable external debt, due to excessive reliance on external borrowing for development finance, also severely reduced not only the fiscal space, but also the policy space of many LDCs, not least in sub-Saharan Africa.

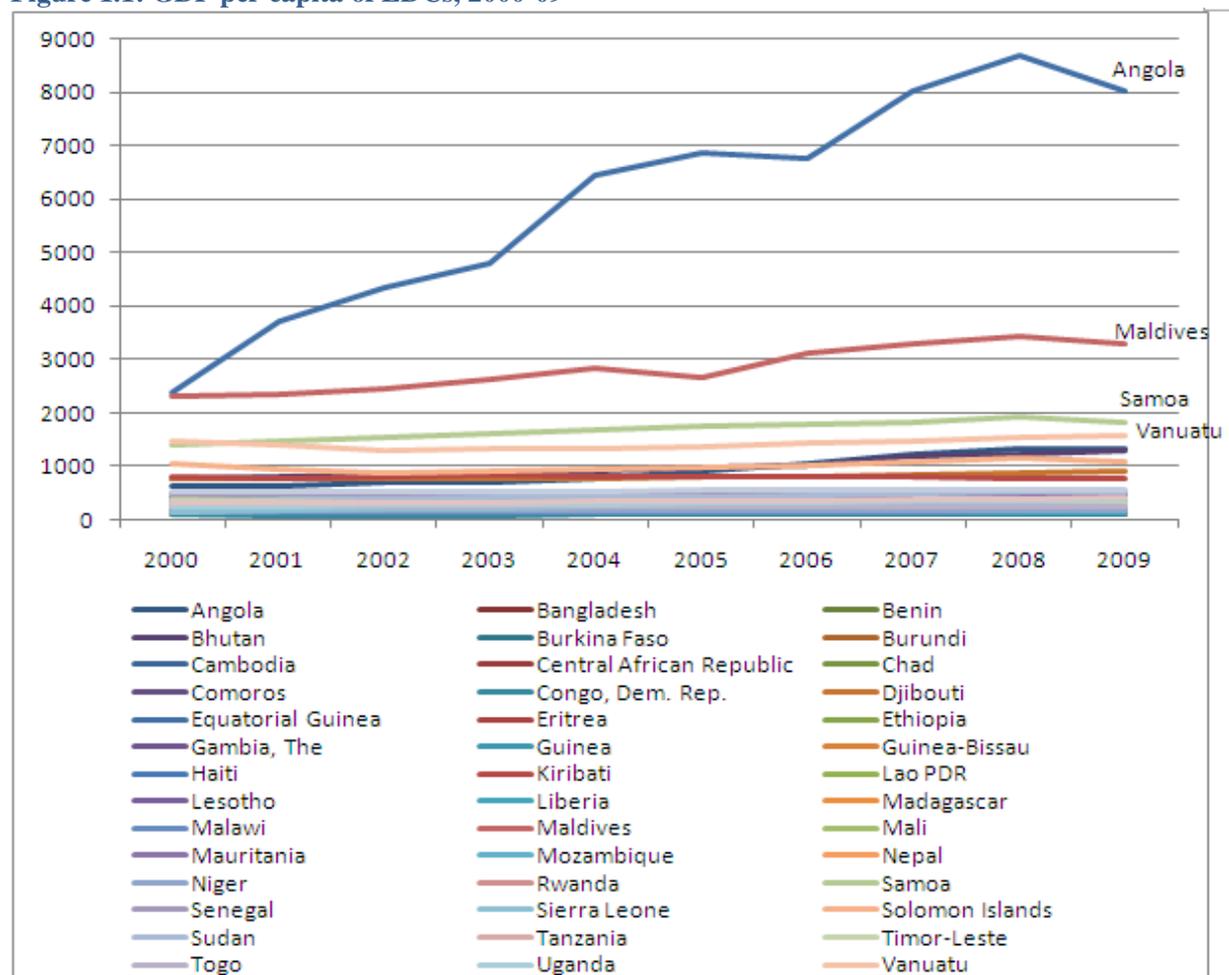
However, growth has gradually picked up from a very low level in the 1970s, reaching quite impressive levels in the past five to ten years. The preconditions for productive transformation and sustained job-rich growth are arguably much better than they were a decade or two ago.

Significant advances have been made in the field of education, not least in sub-Saharan Africa, albeit from a low level. Regime change is increasingly achieved through the ballot box and over the past decade more countries have emerged out of conflict than submerged into conflict. Population growth is slowing down resulting in improved dependency ratios. Not least in sub-Saharan Africa, the fiscal space as well as the policy space is also larger than it was a decade ago.

### *Higher GDP growth in the last decade*

GDP growth for LDCs over the last three decades, 1980 to 2010, has been volatile but has slowly increased as table 1.1 shows, from 3.6 per cent per annum over 1980-89, to 4.2 per cent per annum over 1990-99, to 7.3 per cent per annum over 2000-07. LDCs' GDP per capita has also increased, from 1991 to 2009, from US\$241 (constant 2000 US\$) to US\$395. Long-run GDP growth and GDP per capita have increased for African and Asian LDCs, but not for Island LDCs where GDP per capita for instance dropped by US\$100 to US\$444 by 2009. Figure 1.1 below shows the heterogeneity in country trajectories in GDP per capita.

**Figure 1.1: GDP per capita of LDCs, 2000-09**



Source: World Bank, World Development Indicators 2011.

### *A surge in GDP growth over 2004–07, and then the global crisis-led slump over 2008–10*

Focusing on the last decade, collectively, GDP growth for the LDCs over 1999-2007, running up to the crisis, had been good at 7.3 per cent per annum, with the global average at only 4.1 per cent per annum, as table 1.1 shows. The 33 African LDCs grew the fastest at 7.8 per cent per annum over this period, compared to the 11 Asian LDCs which grew at 6.8 per cent per annum, and the five Island LDCs whose GDP growth was virtually stagnant at 1 per cent per annum.

**Table 1.1: Annual real GDP growth rates (%), 2000–11p**

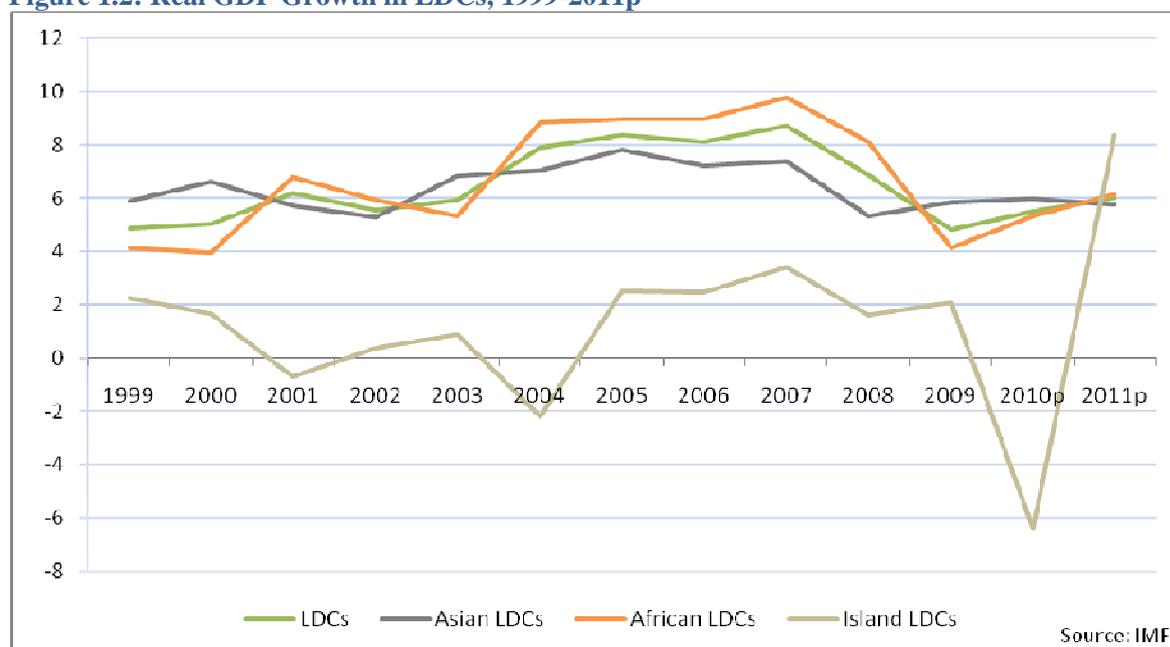
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010p	2011p	Average annual growth		
													1980-89	1990-99	2000-07
<b>LDCs</b>	<b>5.0</b>	<b>6.2</b>	<b>5.6</b>	<b>5.9</b>	<b>7.9</b>	<b>8.4</b>	<b>8.1</b>	<b>8.7</b>	<b>6.9</b>	<b>4.8</b>	<b>5.5</b>	<b>6.0</b>	<b>3.6</b>	<b>4.2</b>	<b>7.3</b>
Asian LDCs	6.6	5.7	5.3	6.8	7.1	7.8	7.2	7.4	5.3	5.8	6.0	5.8	5.0	5.2	6.8
African LDCs	4.0	6.8	5.9	5.3	8.8	9.0	9.0	9.8	8.1	4.1	5.4	6.1	2.3	2.8	7.8
Islands LDCs	1.7	-0.7	0.4	0.9	-2.2	2.5	2.5	3.4	1.6	2.1	-6.4	8.3	0.3	0.9	1.0

Source: Calculated from IMF, *World Economic Outlook*, October 2010.

Note: “p” represents projected figures

Figure 1.2 shows that this GDP growth in the last decade has been volatile, with a surge over 2004–07 by about 2 percentage points, and a slump after 2007 with the global financial crisis by about 2 percentage points. African LDC growth has been more volatile, with 3 percentage point rises, and 4 percentage point falls, compared to Asian LDC growth which rose and fell by 2 percentage points. Recovery has been about 1 percentage point.<sup>2</sup>

**Figure 1.2: Real GDP Growth in LDCs, 1999-2011p**



<sup>2</sup> Recovery in the LDCs is projected by the IMF to be V-shaped. See IMF (2009), “The Implications of the Global Financial Crisis for Low-Income Countries – An Update”.

***The surge and the slump in GDP growth are explained largely by sectoral growth in industry, led by commodities, but not significantly manufacturing, particularly in Africa***

Appendix table A1 shows that GDP growth over all of the last decade has been led by growth in industry of 7.4 per cent per annum, less so by manufacturing at 6.2 per cent per annum, and least of all by agriculture at 2.8 per cent per annum. The surge in 2004–07, and the crisis slump, were particularly led by industrial growth rising by 5 percentage points, and then halving with the crisis. Manufacturing growth increased by about 2 percentage points in the surge and fell by 2 percentage points in the crisis. And this trend was more pronounced for African LDCs than Asian LDCs.

***The volatility in GDP growth comes from the high reliance on exporting commodities rather than manufactures***

The LDCs have done well in increasing the value of their exports over 2000–08. But a large proportion of this export growth has been based on commodities,<sup>3</sup> while the share of manufactures in exports has decreased for LDCs, which accounts for the volatility in LDCs' GDP growth being led by commodity growth.

Table 1.2 shows that LDC exports almost doubled between 2000 and 2008 to US\$22 billion, giving a growth rate of 11 per cent per annum. African LDCs had a higher growth rate of exports over this period.

**Table 1.2: Merchandise exports in LDCs, 2000–09**

	Merchandise exports (millions of US\$, constant 2005)			Average growth rate	Growth rate from preceding year	
	2000	2008	2009	2000–07	2008	2009
LDCs	11,400	21,738	19,000	11.4	4.7	-12.6
African LDCs	1,294	6,083	4,314	27.2	4.5	-29.1
Asian LDCs	10,098	15,652	14,683	7.5	4.8	-6.2
Island LDCs	8	3	4	-5.5	-20.9	19.6

Source: ILO calculations based on World Bank, World Development Indicators.

Appendix table A2, however, shows that for LDCs, manufactures accounted for just under half of all merchandise exports in 2000. By 2008, this share of manufactures had dropped to 40 per cent of all merchandise exports. And conversely, the share of all fuel, ores and metal exports in total merchandise exports rose from 20 per cent in 2000 to 38 per cent by 2008.

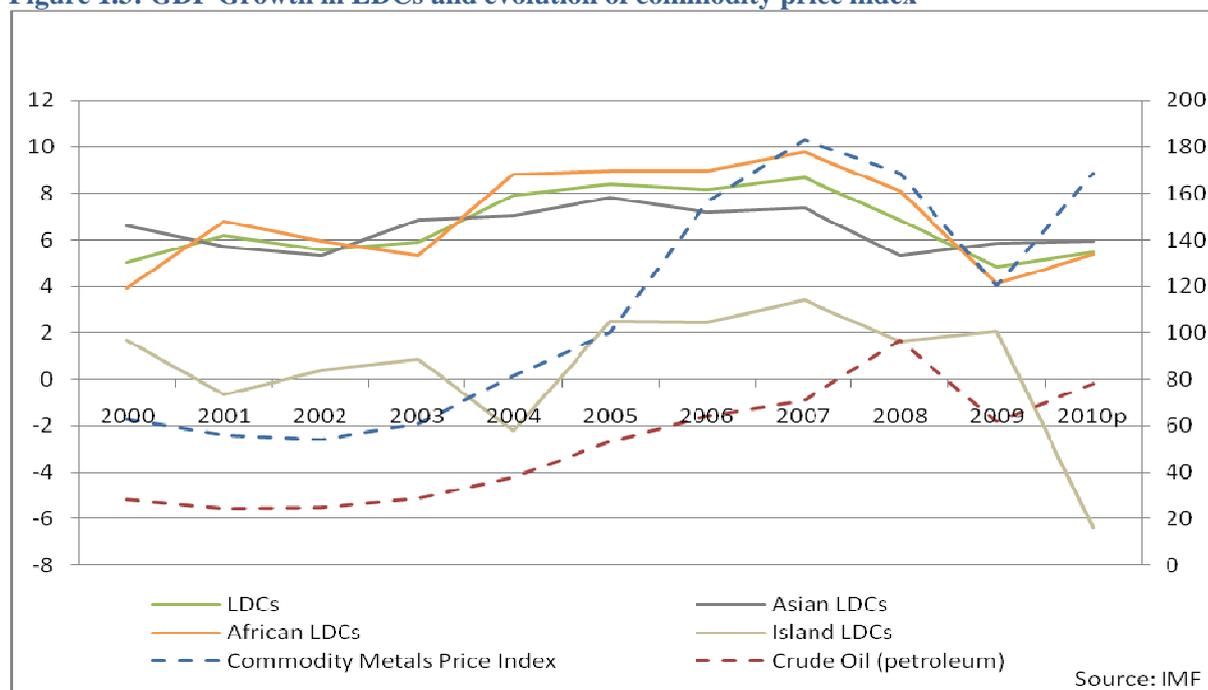
But even this large though declining share of manufactures in LDC exports was kept propped up by Asian LDCs whose share of manufactures in their total merchandise exports were very high and fairly constant at about 90 per cent over the period 2000–08. African LDCs, however, had a very low share of manufactures in their merchandise exports, remaining constant at about 15 per cent between 2000 and 2008. And conversely, African LDCs' share of fuel, ores and metals was already very high at 36 per cent of their merchandise exports in 2000, and increased significantly to 58 per cent by 2008.

<sup>3</sup> *The Least Developed Countries Report, 2010*, also brings out this aspect of commodity-driven exports very strongly.

***And commodity volatility is in turn explained by its price volatility***

Figure 1.3 shows that the surge in LDC growth over 2004–07 is correlated to the surge in commodity and oil prices after 2003. The drop in LDC growth, presumed to be due to the global crisis, is actually better correlated to the drop in commodity prices, which fell a year earlier in

**Figure 1.3: GDP Growth in LDCs and evolution of commodity price index**



2007. And indeed the sharp recovery in commodity prices in 2009 led to the pickup in GDP growth for the LDCs over 2010. Again, the correlation is better for the African LDCs.

***So the volatility in LDC growth comes from a regional pattern favouring commodity exports over manufacturing, more so in African LDCs, less so in Asian LDCs***

As a result of LDC growth being led by non-manufacturing industry – commodities – the sectoral structure of these economies has veered away from manufacturing and towards commodities. To the extent that commodities, at 17 per cent of GDP, are now larger than manufacturing, at 12 per cent of GDP for all LDCs, and dwarf manufacturing in African LDCs but not in Asian LDCs. The share of manufacturing for LDCs remained almost constant over the last decade at about 12 per cent of GDP, constant also for African LDCs at about 8 per cent of GDP, but increased to 16 per cent for Asian LDCs (appendix table A3).

***There has been some growth in investment based on growth in domestic savings, especially for African LDCs. The exception has been the Island LDCs, which have seen on the face of it massive capital flight***

Appendix table A4 decomposes investment into savings, FDI and ODA. The 4.3 percentage point increase in LDC investment between 2000 and 2007 was based entirely on an increase in

domestic savings over this period to 18.5 per cent of GDP, a marginal 0.8 percentage point increase in FDI over this period to 3.2 per cent of GDP, and allowed for a 0.3 percentage point drop in ODA over this period to 6.9 per cent of GDP.<sup>4</sup>

### 1.3 Growth and employment

*The nature of commodity export-led growth in LDCs has had a very weak impact on employment – weaker for African LDCs than for Asian LDCs. The gender and youth gaps persisted, also bearing the brunt of the crisis*

Employment growth for LDCs over 2000–09 was 2.9 per cent per annum, for adults 3.2 per cent per annum, and for youth only 2.1 per cent per annum, so much weaker than GDP growth (ILO *Trends Econometric Models*, 2010).

Table 1.3 shows that LDC unemployment for 2000 was 6.1 per cent of the labour force. And this barely nudged down to 5.7 per cent by 2007, and then nudged up again to 5.8 per cent for 2009 with the impact of the crisis. African LDC unemployment has remained at a higher band range of 7 per cent of the labour force in spite of the high growth in the last decade. Asian unemployment has persisted at a lower band range of 4 per cent. The gender gap in unemployment of about 1 percentage point also remains unaffected by growth over the last decade. The gender gap for African LDCs remained above 1 percentage point over the decade, while it remained much lower for Asian LDCs. The youth gap for LDCs remained at a factor of about 2.5 over the decade.

**Table 1.3: Unemployment rate by sex and for youth and adults (%)**

<b>Both sexes</b>	<b>2000</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010p</b>	<b>2011p</b>
<b>LDCs</b>	<b>6.1</b>	<b>6.2</b>	<b>6.2</b>	<b>5.7</b>	<b>5.7</b>	<b>5.7</b>	<b>5.8</b>	<b>5.8</b>	<b>5.7</b>
Asian LDCs	3.8	4.4	4.4	4.3	4.3	4.2	4.3	4.1	4.1
African LDCs	7.8	7.5	7.4	6.7	6.7	6.7	6.8	6.9	6.9
<b>Male</b>	<b>2000</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010p</b>	<b>2011p</b>
<b>LDCs</b>	<b>5.6</b>	<b>5.7</b>	<b>5.5</b>	<b>5.3</b>	<b>5.3</b>	<b>5.3</b>	<b>5.4</b>	<b>5.4</b>	<b>5.3</b>
Asian LDCs	3.8	4.2	3.8	4.2	4.2	4.0	4.2	4.0	3.9
African LDCs	7.0	6.8	6.8	6.2	6.2	6.2	6.3	6.3	6.3
<b>Female</b>	<b>2000</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010p</b>	<b>2011p</b>
<b>LDCs</b>	<b>6.8</b>	<b>6.9</b>	<b>7.1</b>	<b>6.2</b>	<b>6.2</b>	<b>6.2</b>	<b>6.3</b>	<b>6.3</b>	<b>6.3</b>
Asian LDCs	3.7	4.8	5.4	4.6	4.5	4.5	4.5	4.3	4.2
African LDCs	8.8	8.2	8.2	7.3	7.3	7.3	7.4	7.5	7.5
<b>Youth</b>	<b>2000</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010p</b>	<b>2011p</b>
<b>LDCs</b>	<b>11.0</b>	<b>10.3</b>	<b>10.5</b>	<b>10.1</b>	<b>10.1</b>	<b>10.1</b>	<b>10.3</b>	<b>10.3</b>	<b>10.3</b>
Asian LDCs	9.1	8.1	9.1	9.9	10.0	9.8	10.1	9.8	9.6
African LDCs	12.3	11.6	11.3	10.1	10.1	10.2	10.3	10.5	10.5
<b>Adults</b>	<b>2000</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010p</b>	<b>2011p</b>
<b>LDCs</b>	<b>3.9</b>	<b>4.5</b>	<b>4.4</b>	<b>3.9</b>	<b>3.9</b>	<b>3.9</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>
Asian LDCs	1.5	3.0	2.7	2.3	2.3	2.3	2.4	2.3	2.3
African LDCs	5.8	5.6	5.7	5.1	5.2	5.2	5.2	5.3	5.3

Source: ILO, *Trends Econometric Models*, October 2010.

Note: “p” represents projected figures.

<sup>4</sup> According to the ECA, inflows of private capital accounted for much of Africa’s increase of financial reserves as well as economic growth in the past decade.

The table also shows that women's unemployment increased with the crisis rather than men's, and youth unemployment increased with the crisis rather than adult unemployment. So women and youth bore all the brunt of the crisis, and with no projections for their recovery by 2011.

***Industry-led GDP growth in LDCs did not result in concomitant employment growth in industry, but instead in services***

Table 1.4 shows that agriculture accounted for some 70 per cent of total employment in the LDCs in 2000, and this dropped by 5 percentage points by 2008. Industry accounted for only 8 per cent of total LDC employment in 2000, and this barely increased to nearly 10 per cent by 2008. Services accounted for 23 per cent of LDC employment in 2000, and this increased by 3.4 percentage points to 26 per cent of total employment by 2008. African LDCs had lower structural change in employment, of about 4 percentage points of total employment change between 2000 and 2008. Asian LDCs had slightly higher structural change, of about 7 percentage points of total employment change between 2000 and 2008.

**Table 1.4: Employment in major economic sectors (%)**

	2000			2008			Change 2000–08		
	Agriculture	Industry	Services	Agriculture	Industry	Services	Agriculture	Industry	Services
<b>LDCs</b>	<b>69.3</b>	<b>8.1</b>	<b>22.6</b>	<b>64.2</b>	<b>9.7</b>	<b>26.1</b>	<b>-5.1</b>	<b>1.6</b>	<b>3.4</b>
Asian LDCs	65.6	10.9	23.4	58.8	12.5	28.6	-6.8	1.6	5.2
African LDCs	72.6	5.8	21.7	68.4	7.7	23.9	-4.1	1.9	2.2

Source: ILO, Trends Econometric Models, October 2010.

#### 1.4 Growth and decent work

***Additional indicators of decent work include the working poor, vulnerable employment, wage and salary employment and labour productivity. These show improvement, but from very weak starting points in African and Asian LDCs***

Table 1.5 shows that the proportion of working poor dropped from 71 per cent of total employment in 2000 to 60 per cent by 2009. Asian LDCs' working poor remained about 10 percentage points lower than for African LDCs.

**Table 1.5: Working poor indicators (US\$1.25 a day)**

	Numbers of people (millions)			Share in total employment (%)		
	2000	2008*	2009*	2000	2008*	2009*
<b>LDCs</b>	<b>189.7</b>	<b>203.0</b>	<b>206.2</b>	<b>71.3</b>	<b>60.5</b>	<b>59.8</b>
Asian LDCs	78.0	77.4	77.4	67.5	55.5	54.2
African LDCs	109.6	122.7	125.9	74.4	63.9	63.7

2008\* and 2009\* are preliminary estimates.

Source: ILO, Trends Econometric Models, October 2010.

The improvement in the share of the working poor in total employment is based upon improvement in the incidence of poverty across the LDCs. For African LDCs whose data permitted estimation, 14 out of 18 countries had a decline in their incidence of poverty between 1990 and 2007, while four out of 18 had an increase. For Asian LDCs with such estimates for

this period, four out of five countries had a decline in their incidence of poverty, while one out of five had an increase (appendix table A5).

Unfortunately, these declines in the incidence of poverty and the working poor were not accompanied by a decline in the cereal deficit, which remained at about 15 per cent.

*The share of wage and salary workers just inched up, so lowering the share of vulnerable workers. But the gender gap in such vulnerability unfortunately also inched up*

Table 1.6 shows that the share of wage and salary workers in total employment in the LDCs was only 14 per cent in 2000, while the share of vulnerable workers comprising own-account workers and unpaid family workers was a preponderant 84 per cent. The high growth in the decade barely increased the share of wage and salary workers to 18 per cent of total employment, just lowering the share of vulnerable employment to 81 per cent.

**Table 1.6: Status in employment (%)**

	2000				2008				Change 2000–08			
	Wage and salary workers	Employers	Own-account workers	Unpaid family workers	Wage and salary workers	Employers	Own-account workers	Unpaid family workers	Wage and salary workers	Employers	Own-account workers	Unpaid family workers
<b>LDCs</b>	<b>14.4</b>	<b>1.2</b>	<b>50.3</b>	<b>34.1</b>	<b>17.9</b>	<b>1.5</b>	<b>49.3</b>	<b>31.3</b>	<b>3.5</b>	<b>0.3</b>	<b>-1.0</b>	<b>-2.8</b>
Asian LDCs	14.0	0.8	55.4	29.9	17.9	0.8	52.5	28.7	3.9	0.0	-2.8	-1.1
African LDCs	13.8	1.4	46.7	38.0	17.2	1.9	47.2	33.7	3.4	0.5	0.5	-4.3

Source: ILO, Trends Econometric Models, October 2010.

Table 1.7 shows that the gender gap in vulnerability actually marginally increased over the whole decade from 10 to around 11 percentage points, leaving some 87 per cent of women in vulnerable employment by 2009.

**Table 1.7: Vulnerable employment shares by sex (%)**

<b>Both sexes</b>	<b>2000</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>LDCs</b>	<b>84.4</b>	<b>82.6</b>	<b>82.1</b>	<b>81.5</b>	<b>80.6</b>	<b>80.8</b>
Asian LDCs	85.2	83.1	82.5	82.1	81.3	81.2
African LDCs	84.7	83.1	82.6	81.9	80.9	81.3
<b>Male</b>	<b>2000</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>LDCs</b>	<b>80.2</b>	<b>77.7</b>	<b>77.1</b>	<b>76.5</b>	<b>75.6</b>	<b>76.1</b>
Asian LDCs	82.7	80.2	79.6	79.1	78.3	78.3
African LDCs	79.0	76.4	76.0	75.2	74.2	75.2
<b>Female</b>	<b>2000</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
<b>LDCs</b>	<b>90.2</b>	<b>89.1</b>	<b>88.6</b>	<b>88.0</b>	<b>87.2</b>	<b>86.9</b>
Asian LDCs	89.0	87.3	86.7	86.3	85.5	85.2
African LDCs	92.0	91.3	90.8	90.2	89.2	88.9

Source: ILO, Trends Econometric Models, October 2010.

### *While worker productivity has grown, it still remains the lowest in the world*

Appendix table A6 shows that LDCs had the lowest labour productivity in the world, in 2000, of US\$693. By 2009, this labour productivity had increased in real terms to US\$954. This remained the lowest labour productivity in the world. Asian LDCs had higher labour productivity growth over 2000–08, of 4.5 per cent per annum, ending up at US\$1,091 in 2009. African LDCs had slightly lower labour productivity growth of 3.8 per cent per annum over this period, ending up at US\$855 by 2009.

## **1.5 The MDGs and MDG 1.A**

As a group, the LDCs are not on target to achieve the Millennium Development Goal on poverty reduction, halving the share of poverty in the population from 1990 to 2015.

### *Converting the MDG on poverty reduction to a productive-employment target*

The poverty measure in the Millennium Development Goals refers to the national population. However, MDG 1.A can be viewed as an implicit employment target to halve the rate of working poverty in LDCs by 2015, for both new entrants to the labour market and for those currently in it to find productive employment earning above US\$1.25 per day, which is the poverty threshold.

Table 1.8 implies that LDCs need a rate of employment growth of 7 per cent to achieve MDG 1.A and halve poverty by 2015, which is a heroic assumption given the much lower actual employment growth rate.

**Table 1.8: Summary of the productive-employment target for the LDCs as a whole**

Parameter	1990	2005	2015 (estimates)
Total LF	181'082'389	278'359'307	370'284'688
Population	435'408'043	638'401'449	805'787'704
Productive jobs	89'101'105	139'179'654	276'241'139
Working poor	91'981'284	139'179'654	94'043'549
Average poverty rate	50.8%	50%*	25.4%

	2005-1990	2015-2005 (needed)
Annual change productive employment	3'338'570	13'706'149
Productive employment growth (annual average)	3.02%	7.10%

Source: UNOHRLLS

## **1.6 Implied policy**

Figure 1.4 summarizes the argument made about the nature of growth and its employment impact in LDCs over the past decade. Rather than categorizing the LDCs by region, it categorizes them by success in terms of GDP per capita and GDP growth. The high-growth LDCs are at the top, the low-growth LDCs are at the bottom. The enabling conditions for high growth, especially with low incomes, have been high growth in exports, high growth in industry,

higher growth in investment, but also a higher share in manufacturing. The higher share in manufacturing has been seen to lower volatility in GDP growth, and improve labour market outcomes in terms of unemployment levels, enhanced employment in industry, a lower level of the working poor, and a higher level of productivity. The high-growth/low-income LDCs managed a working poor share 10 percentage points lower than their low-growth counterparts.

This gives three policy caveats on growth and employment.

One, export and sectoral diversification is needed from commodities to manufacturing to improve employment and decent work outcomes.

Two, the necessary condition, but certainly not the sufficient condition as the following chapters show, is to increase investment in manufacturing and agriculture, to raise productivity, competitiveness, employment and incomes.

Three, the high incidence of the working poor, the high incidence of vulnerable workers, the persistently high preponderance of women amongst the vulnerable workers, and the high ratios of youth-to-adult unemployment, all call for an increase in private and public investment. Both raise aggregate demand and employment. Public investment can play an additional role in providing an employment floor as the detailed chapter on this points out below.



## Chapter 2: Macroeconomic policies to promote job creation and poverty reduction in LDCs

### Introduction

The international community's support to the twin goals of job creation and poverty reduction in LDCs are reflected in the MDGs and the social protection floor (SPF) initiative (discussed in Chapter 8). What role can macroeconomic policies play in supporting MDG 1.B<sup>5</sup> and the SPF initiative? The standard macroeconomic framework that prevailed in the pre-crisis era and continues to prevail today offers a clear prescription: focus on stability and predictability in key nominal targets pertaining to inflation, debts and deficits. Such nominal targets usually pertain to: (1) low, single-digit inflation; and (2) prudential limits on debt-to-GDP ratios supported by low fiscal deficits. The rationale is that a commitment to key nominal targets over the medium- to long-run boosts investor confidence, promotes growth, creates jobs and reduces poverty.<sup>6</sup>

This chapter argues that the prescriptions of the prevailing macroeconomic framework are necessary for growth to be sustained. In any case, as the contributions to this report emphasize, growth alone will not be sufficient to make significant progress towards the attainment of MDG 1.B, nor will it fully fortify policy-makers to make significant progress towards the SPF initiative. The post-crisis macroeconomic framework needs to move beyond a preoccupation with nominal targets and reflect much more on how sustainable resources can be harnessed to finance public investments in health, education, water supply, sanitation and infrastructure that are crucial in attaining MDG 1.B (together with the other MDGs) and the SPF initiative as well as supporting targeted interventions, such as public employment programmes. This should be complemented by a more nuanced approach to inflation targeting that makes a distinction between overall inflation and the behaviour of food prices. In addition, promoting the agenda of financial inclusion, maintaining competitive and stable real exchange rates and prudent capital account management can provide much-needed policy space for LDCs to pursue a strategy of economic diversification.

### The standard macroeconomic framework and its contested role in the LDC growth revival of the 2000s

The LDCs – covering both Asia and Africa – experienced a growth revival in the 2000s after the “lost decades” of the 1980s and much of the 1990s and a downward trend in inflation in the 2000s.<sup>7</sup> Such a growth revival with reduced inflation was also associated with a significant decline in both growth and inflation volatility (measured by the coefficient of variation) as can be seen in figure 2.1, where the strongest decline in volatility occurs in African LDCs.

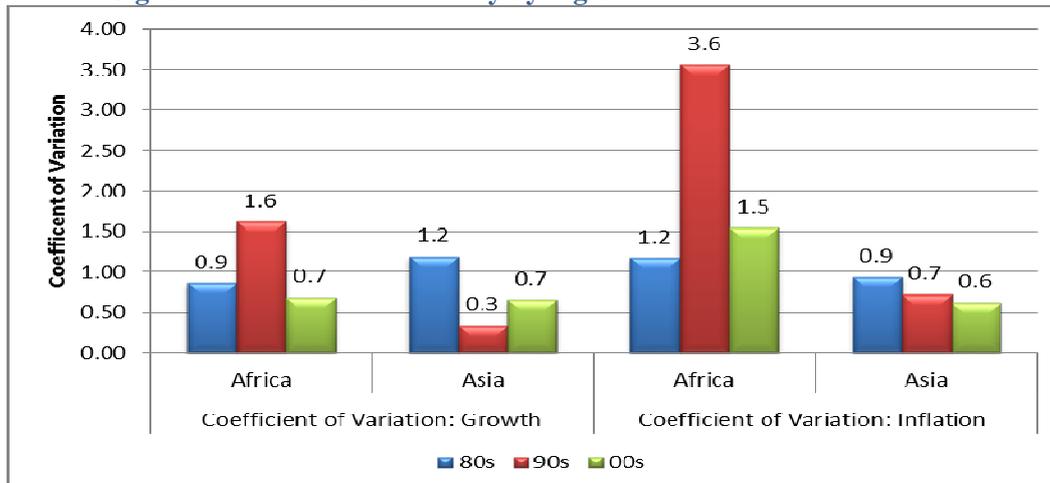
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<sup>5</sup> MDG 1 .B: “Achieve full and productive employment and decent work for all, including women and young people”.

<sup>6</sup> The standard macroeconomic framework in developing countries was launched through the structural adjustment programmes of the 1980s and 1990s. By 1999, the era of structural adjustment lending came to an end and was replaced by “poverty reduction strategies” (PRSs), but the focus on the standard macroeconomic framework remained intact. See Independent Evaluation Office of the IMF (2007) for a review of the application of this framework to 29 countries in sub-Saharan Africa that received financial assistance from the IMF.

<sup>7</sup> Easterly (2001) has coined the term the “lost decades”.

**Figure 2.1: LDC growth and inflation volatility by region**



Source: World Development Indicators, World Bank Databank, 2010, volatility based on author’s calculations of coefficient of variation, aggregates compiled by author based on available data from LDC countries.

What can explain such a phenomenon? To some, the diagnosis is straightforward. As one senior IMF economist puts it: “Prudent macroeconomic policies and increased reform efforts in many countries in (Africa) laid the foundation for the growth acceleration of recent years ...” (*IMF Survey Magazine*, 2007).

Others are less certain. As the foregoing Chapter 1 and the UNCTAD 2010 report on LDCs note, the robust growth of the 2000s was propelled largely by favourable external circumstances – commodity price booms, rising exports and remittances, increased capital flows, higher official development assistance and debt relief – that are unlikely to be replicated in the more austere environment of today.

It appeared that, in the wake of the Great Recession, one would move away from a “business as usual” scenario. In the case of LDCs, the policy advice offered by the IMF during 2008–09 was that countries with fiscal space should allow both automatic stabilizers and discretionary fiscal policy to support countercyclical measures to cope with the external demand shock engendered by the Great Recession (Berg et al., 2009).

The emphasis on counter-cyclical measures proved short-lived. The IMF’s latest report on the MDGs (IMF, 2010) attaches salience to the need for “policy buffers”, which essentially means low inflation and fiscal discipline. An examination of a random sample of 30 low-income countries shows that macroeconomic policy advice as manifested in the IMF’s article IV consultations is dominated by concerns about fiscal consolidation and, to a lesser extent, inflation targeting. There are hardly any explicit references to MDGs and none to MDG 1.B or to the SPF initiative.

### **Aligning macroeconomic policies with the twin goals of job creation and poverty reduction in LDCs: Some suggestions**

Given the risk of a “business as usual” scenario, what are the alternatives? This section summarizes the elements of a macroeconomic framework that has the potential to lead to

significant progress in job creation and poverty reduction in LDCs. The discussion commences with fiscal policy and proceeds to other policy areas.

*Fiscal policy: Using the fiscal diamond to enhance fiscal space*

The role of fiscal policy is twofold. First, robust and regular estimates are required to assess the financing needs associated with the MDGs and the SPF initiative. An illustration of such estimates is shown in box 2.1. The message is that there are conspicuous and unmet financing needs. More importantly, they are likely to get worse as the Great Recession has, at least according to one study, created a huge “fiscal hole” in the case of LDCs.

**Box 2.1: Financing the MDGs and the SPF**

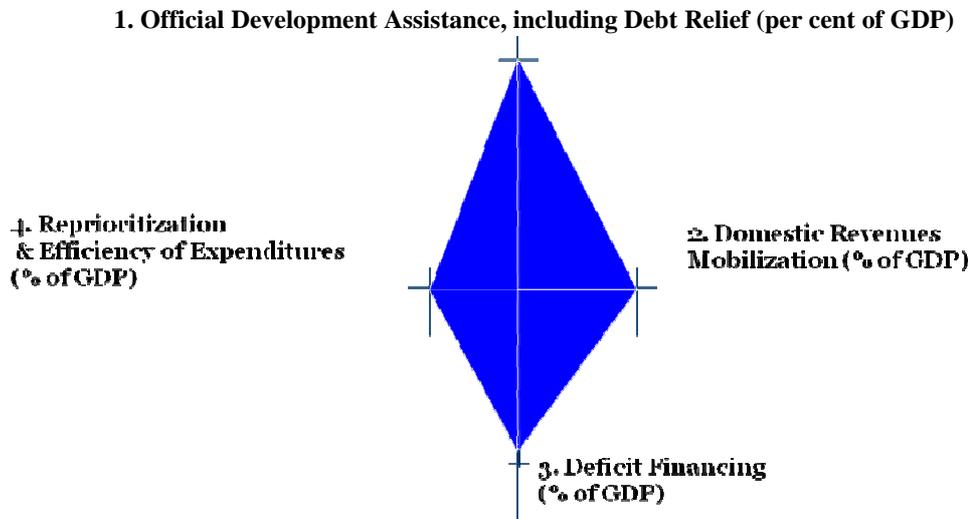
The World Bank estimates that, if countries improve their policies and institutions, the additional foreign aid required to reach the MDGs by 2015 is between US\$40 and US\$60 billion a year (Devarajan et al., 2002) and the ADB estimates the additional per-person costs for the poverty income goal to be between US\$550 and US\$880 (Markandya et al., 2010). To meet these per-capita costs, foreign aid commitments would have to be their current projected size.

A forerunner to the SPF is the “basic social security package” that was proposed by the ILO in 2008. Such a package includes the following elements: (a) basic old-age and disability pensions (benefits set at the rate of 30 per cent of GDP per capita); (b) benefits at the rate of 15 per cent of GDP per capita for the first two children below the age of 14; (c) 100 days guaranteed employment at a wage of 30 per cent of GDP per capita for a maximum of 10 per cent of all people of all ages; and (d) essential health care based on one health professional per 300 persons. Using these benchmarks, the study examined 12 countries, out of which seven are in Africa (Burkina Faso, Cameroon, Ethiopia, Guinea, Kenya, Senegal, United Republic of Tanzania) and the rest are in Asia (Bangladesh, India, Nepal, Pakistan and Viet Nam), using projections for the 2010–30 period. The fiscal requirements range from over 10 per cent of GDP (Burkina Faso) to a little over 4 per cent (Guinea).

The fiscal challenges of meeting the MDGs and the SPF in the wake of the Great Recession are brought out by an Oxfam study. It shows that the Great Recession has created a huge “fiscal hole” in the 56 low-income countries (LICs) by reducing their budget revenues (and their ability to spend to confront the crisis and reach the MDGs) by US\$65 billion over the 2009–10 period (Kyrili and Martin, 2010). As a result of the fiscal hole, after some fiscal stimulus to combat the crisis in 2009, most LICs are cutting MDG spending, especially on education and social protection.

Second, the aim is to identify a country’s “fiscal diamond” as shown in figure 2.2. The fiscal diamond is a compact, but critical, summary of the way one can increase fiscal space to meet the core development goals. This entails mobilizing domestic and external resources within a framework of fiscal sustainability to support enhanced public investment in health, education, water supply, sanitation and infrastructure that are critical in attaining the MDGs. This needs to be combined with sustained efforts to harness resources to finance an SPF that includes such targeted interventions as public employment programmes.

Figure 2.2: The “fiscal diamond”



It is well known that there has been a secular decline in public investment in the LDCs – see figure 2.3. What is now the scale of the public investment challenge facing LDCs? The Growth Commission suggests a public investment rate in infrastructure of around 7 per cent of GDP is needed as an important element of a national development strategy.<sup>8</sup> Yet the data suggest that barely 2 to 3 per cent of GDP is invested in infrastructure in many developing countries and emerging economies. This is clearly a policy challenge given that 50 per cent of firms in Asia and Africa cite lack of access to electricity as a major constraint on their business operations.<sup>9</sup>

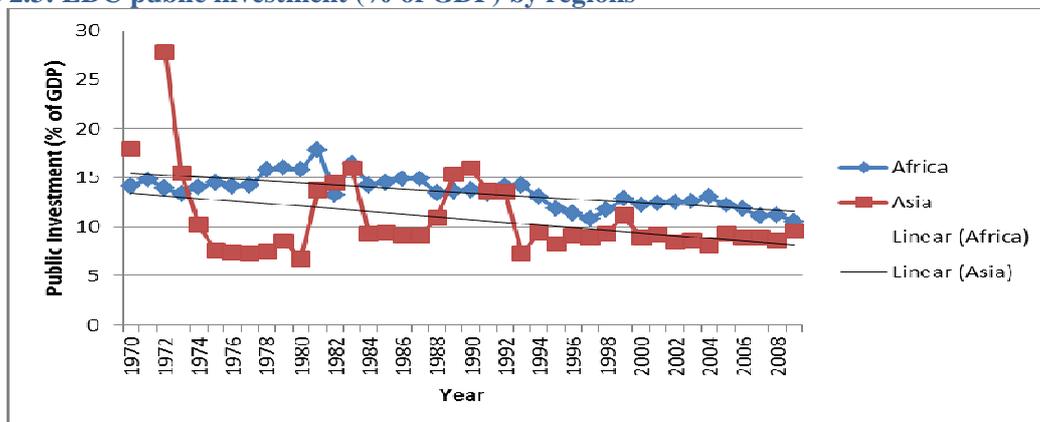
Addressing these concerns requires determined public action to cope with the public investment deficit that has built up over decades. Hence, a resource mobilization strategy pursued through improved budgetary execution and enhanced domestic revenue-to-GDP ratios in countries with a low tax burden are core planks of a development strategy.<sup>10</sup> For example, estimates show that the Bangladesh Government can fully upgrade its public employment programme to an Indian standard national employment guarantee scheme by increasing its historically low tax-to-GDP ratio by 3 percentage points and by better utilization of its existing resources (Islam et al., 2011). This can be complemented by other initiatives, such as public-private partnerships and efforts to tap domestic savings and channel them into productive investment. In addition, where energy taxation can be used effectively and equitably, they can be a new source of revenue that has the benefit of supporting initiatives to cope with climate change.

<sup>8</sup> Commission on Growth and Development, 2008, pp. 30-35

<sup>9</sup> These estimates can be derived from online data available at: [www.enterprisesurveys.org](http://www.enterprisesurveys.org).

<sup>10</sup> This is an issue on which there is broad agreement in the international community (IMF, 2010; UNDP, 2010).

**Figure 2.3: LDC public investment (% of GDP) by regions**



Source: World Development Indicators; World Bank Databank, 2010; US Energy Information Association; and the Food and Agriculture Organization of the United Nations. Aggregates and calculations compiled by author.

Domestic resource mobilization needs to be supported by enhanced development assistance from donors. Hence, maintaining aid commitments and exploring feasible options for identifying alternative sources of reliable and low-cost development finance to supplement traditional sources are important elements of a development-friendly macroeconomic framework.

As part of enhanced development assistance, an important issue is the role that debt relief has played in enhancing fiscal space for LDCs – see box 2.2. While debt relief in aggregate has contributed to enhancing fiscal space, country-specific experiences suggest that there is significant scope for improvement.

#### **Box 2.2: The relationship between debt relief and fiscal space in LDCs**

According to the IMF’s African Department Director, the fiscal space created by high levels of debt relief is supporting poverty-reducing spending in LDCs.<sup>1</sup> Initiatives such as the Heavily Indebted Poor Countries (HIPC) and the Multilateral Debt Relief Initiative (MDRI) have substantially reduced the debt-to-GDP and debt-to-export ratios of a significant subset of countries in the LDC group, improving the overall sustainability of their debt and freeing considerable amounts of resources that were previously earmarked for debt servicing (UNCTAD, 2010).

The trends indicate that the level of debt relief for LDCs spiked at a high level following the *Gleneagles Summit*, from 2005 to 2006, but swiftly came down in 2007. Total debt service has steadily declined from above 20 per cent of total exports to less than 5 per cent in 2008. However, the progress does not mean that the debt issue is no longer relevant in LDCs. As of April 2010, 14 LDCs that still remain in debt distress or at high risk of debt distress were not identified as HIPCs or had not reached the completion point. Even in the best-case scenario of a fast recovery and a long-term growth path, LDCs and developing countries alike will face higher debt burdens as a result of the global economic crisis.

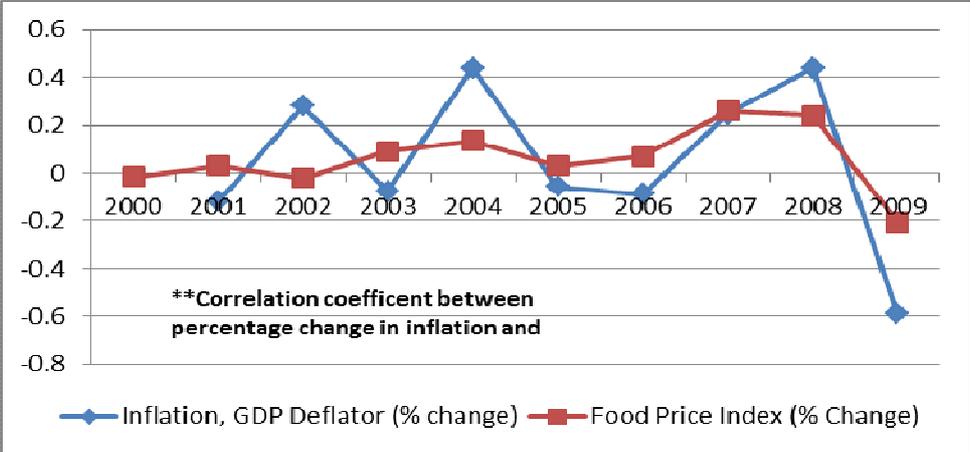
The relationship between debt relief and fiscal space differs across LDCs. The fiscal space assessments for Mozambique and Malawi noted that debt relief under the HIPC initiative had expanded fiscal space and thereby allowed for a scaling up of public investments (UNDP, 2010). The MDG Report for Malawi noted that with 84 per cent of the country’s external debt stock cancelled, the country’s annual debt service had been reduced to US\$15 million, freeing up US\$110 million for expenditures in priority programmes. However, one country study, using the MDG framework to critically examine fiscal policies in Zambia, finds that they enjoy very little “policy space” and when all calculations are carried out and attendant conditionalities on policy-making are taken into account, HIPC debt relief actually provides marginally less fiscal space, rather than more (Weeks and McKinley, 2006).

<sup>1</sup> *IMF Survey Magazine* (2007), interview with Abdoulaye Bio-Tchane, “Africa’s Better Policies are Paying Off”.

**Monetary policy: Going beyond inflation targeting**

In coping with inflation in LDCs, recent economic history suggests that it is necessary to make a distinction between the overall inflation rate and the behaviour of food prices, given that there is a close correlation between the latter and the former – see figure 2.4. In particular, food prices – which have risen again – have threatened to derail progress in the attainment of the MDGs, exposed the paucity of social protection systems and have engendered social unrest. The latest estimates are that the current increase in food prices has pushed over 40 million in the developing world into a transient episode of poverty (World Bank, 2011). The appropriate response in this case is to undertake policy actions across a wide front that improves food security. Using restrictive monetary policy to tame rising food prices is unlikely to work in the case of cost push inflation.

**Figure 2.4: Co-movement of inflation and food price index**

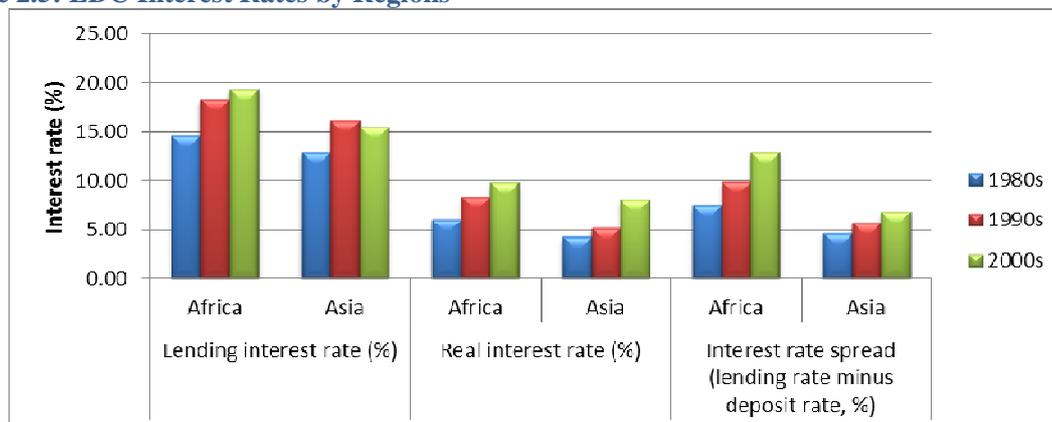


Source: World Development Indicators; World Bank Databank, 2010; US Energy Information Association; and the Food and Agriculture Organization of the United Nations. Aggregates and calculations compiled by author.

When judged from a cost of borrowing perspective, it is by no means clear that the low inflation environment of the 2000s has provided tangible benefits to the private sector. The median real lending rate in LDCs has risen between the 1990s and 2000s (figure 2.5). Furthermore, LDCs are afflicted by rising interest rate spreads. Hence, a major challenge for monetary policy in LDCs is to find ways of reducing the cost of borrowing. This means taking account of the extent to which lack of access to finance acts as a binding constraint on growth. Private sector firms in developing countries usually regard lack of access to finance as a major impediment to business operations and their employment-creating potential.<sup>11</sup> Hence, central banks and financial authorities have an obligation to enhance financial inclusion without forsaking their prudential obligations and their role in safeguarding price stability. Enhancing financial inclusion means: (1) increasing access to finance for the private sector, especially small and medium-sized firms; (2) encouraging the development of well regulated and efficient microfinance institutions (MFIs) that can respond to the financing needs of poor and vulnerable households who seek durable self-employment.

<sup>11</sup> These estimates can be derived from online data available at: [www.enterprisesurveys.org](http://www.enterprisesurveys.org).

**Figure 2.5: LDC Interest Rates by Regions**



Source: World Development Indicators; World Bank Databank, 2010. Aggregates compiled by author.

*Exchange rate and capital account management: Aiming for competitive and stable real exchange rates and coping with capital flows*

In the sphere of exchange rate regimes and capital account management, the aim should be the adoption of institutional arrangements that sustain competitive and stable real exchange rates, given the evidence that the real exchange rate exerts a powerful influence on structural transformation (Rodrik, 2008). More specifically, a study on South Africa using data for the 1970–2004 period shows that real exchange rate overvaluation reduces growth and impedes export diversification (Elbadawi et al., 2008). As box 2.3 shows, a similar effect applies in the case of Malawi, where moving towards a competitive and stable real exchange rate regime is an essential component of a pro-employment macroeconomic framework.

In cases where unrestrained capital flow poses a policy challenge, a more prudent approach to capital account management might be justified as this opens up policy space for initiatives that create employment (Ostry et al., 2010). Forty per cent of African LDCs have significant restrictions on the capital account (Berg, A. et al, 2009) but for the remaining 60 per cent there is little or no evidence that capital account liberalization has necessarily provided them with the capacity to boost growth (Cerra et al., 2009).

**Box 2.3: The exchange rate regime and its implications for growth and employment in Malawi**

A study commissioned by the ILO shows that “macroeconomic policy, particularly exchange rate policy, matters a great deal” in affecting economic growth and employment creation. The study maintains that Malawi has a “tradition of attempting to maintain a stable nominal exchange rate, i.e., fixing the value of the Kwacha in terms of US dollars ... The official purpose of maintaining a stable exchange rate is primarily to reduce inflation”, with the Government arguing that this anti-inflation dimension of exchange rate policy is worth preserving because export supply is not very responsive to the exchange rate. This might be true in the short term, but it ignores the role that a competitive real exchange rate plays in supporting structural transformation in the medium term. The study shows that, given the higher inflation rate in Malawi relative to its trading partners, attempting to maintain a nominal exchange rate leads to a real appreciation and also induces volatility. There is also evidence that the real appreciation is associated with a sharp jump in import penetration from 44 per cent of GDP in 2007 to 53 per cent of GDP in 2008. The study urges policy-makers to recognize that, with a competitive and predictable real exchange rate regime, “firms would most likely have created more jobs, invested more and diversified more in Malawi”.

Source: Durevall and Mussa (2010), “Employment Diagnostic Analysis on Malawi”. A report prepared for the Government of Malawi Ministry of Labour; Geneva, ILO, pp. 84-87.



## Chapter 3: Harnessing trade for growth, employment and poverty reduction

Trade has the potential to contribute to growth in particular if combined with incoming FDI.<sup>12</sup> Openness to trade can notably help LDCs to grow out of a highly concentrated production structure because it provides LDCs with access to new products and to new markets. Evidence,<sup>13</sup> however, suggests that positive effects on growth and diversification are not automatic and have not always materialized in the case of LDCs in recent decades. This leads to the question of what governments can do to ensure that the potential growth effects of trade are harnessed. A separate and equally important question is what needs to be done to ensure that eventual growth effects translate into positive employment and poverty reduction effects.

### *Trade policy and trade performance in LDCs*

Even though most LDCs significantly liberalized their trade regime over the past decade,<sup>14</sup> they maintain on average slightly higher levels of tariff protection than other countries. Average unweighted most-favoured nation (MFN) tariffs are of 13 per cent in LDCs as compared to 12 per cent for other low-income countries (LICs), 10 per cent for middle-income countries (MICs) and 6 per cent for high-income countries (HICs).

Between 1996 and 2008,<sup>15</sup> the average ratio of exports to GDP has increased from 25 to 33 per cent for LDCs. Thus, LDCs have not been decoupled from the global trend towards greater trade integration. However, their average export-to-GDP ratio remains significantly below that of MICs (45 per cent) and HICs (62 per cent). There has also been substantial dispersion among LDCs' trade performance, with some LDCs experiencing very fast export growth while others fell behind.

One explanation for this relative lack of trade integration, notwithstanding liberal trade policies, is the continuing presence of barriers to trade other than tariffs. Non-tariff barriers such as delays at the border and transport costs continue to pose significant obstacles to trade in LDCs, as reflected in the World Bank's Logistics Performance Index, for which LDCs (index of 2.3) continue to perform significantly worse than MICs (2.6) and HICs (3.5).

### *Characteristics of LDC trade and resulting effects on growth*

Two statistical regularities are by now widely accepted: the relationship between concentration in production and GDP per capita is U-shaped and the same U-shaped relationship holds for export concentration and GDP per capita.<sup>16</sup> Accordingly, export concentration would be expected to go down and export diversification to increase as LDCs grow. Instead, the

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<sup>12</sup> Sachs and Warner (1995), Wacziarg and Welch (2008), Dollar (1992), Edwards (1998), Frankel and Rapetti (1999), and Warner (2003).

<sup>13</sup> Wacziarg and Welch (2008).

<sup>14</sup> This statement is based on an observation period covering 1995–2008. For 12 out of 15 LDCs with data availability (World Development Indicators) for that period, most-favoured nation (MFN) tariffs averaged over the period 2005–08 fell by 3.5 per cent when compared to the average MFN tariff ten years earlier, i.e. 1995–98.

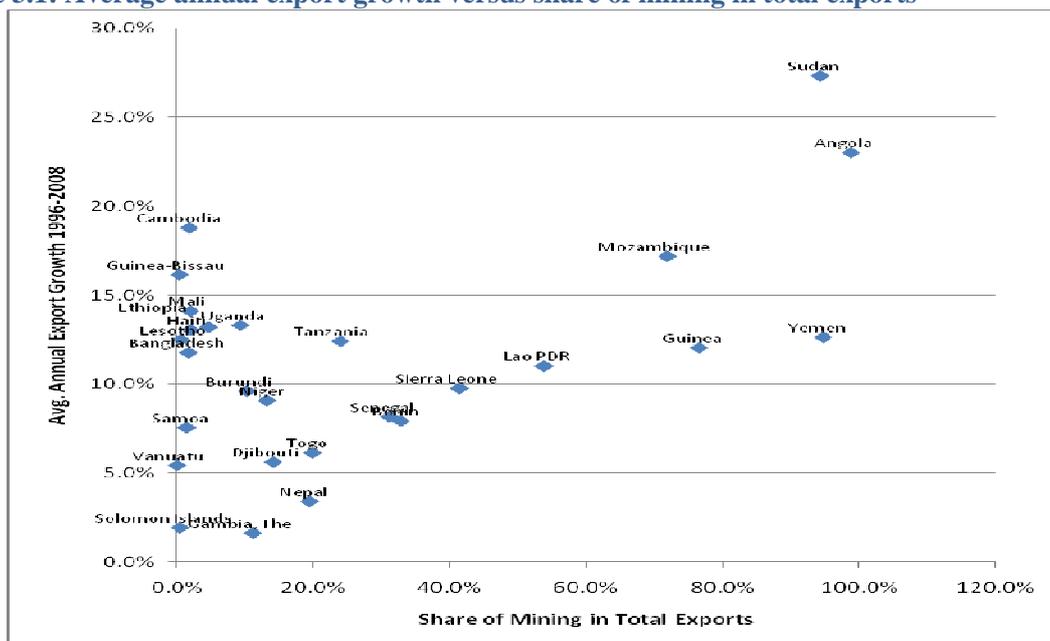
<sup>15</sup> Here, and in the following paragraphs, the year 2008 rather than 2009 is used as a reference period due to the significant abnormalities in global trade as a result of the global economic crisis in 2009.

<sup>16</sup> Imbs and Wacziarg (2003), Klinger and Lederman (2006), as well as Cadot et al. (forthcoming).

Herfindahl index for export concentration increased by 0.03 for LDCs since the late 1990s, reflecting an increase in export concentration in 26 out of 41 LDCs with data availability in a period in which LDCs had on average a positive growth performance.<sup>17</sup>

Figure 3.1 provides additional insights into the role of export concentration in LDCs. It shows that LDCs with a large share of mining products all experienced rapid export growth between 1996 and 2008. This is in line with the strong increase in world market demand for many mining products during this period, which is often attributed to the rapid growth and resource-intensive production in China and other emerging markets. Among LDCs with low mining exports, the picture is much more diverse. Some also achieved impressive export growth based on manufacturing (Bangladesh, Cambodia, Lesotho) or agriculture (Ethiopia, Guinea-Bissau, Mali). However, other non-mining exporters, such as Gambia, Nepal and the Solomon Islands, fell behind in terms of export growth. Consistent with these patterns, the data reveal a significant shift in the average export composition of LDCs over this period. The average share of mining exports increased from 17 to 31 per cent at the expense of agriculture, the share of which declined from 46 to 33 per cent. The share of manufacturing exports on average declined slightly (1996: 38 per cent, 2008: 36 per cent).

**Figure 3.1: Average annual export growth versus share of mining in total exports**



It should be noted though that these relatively balanced average figures mask the fact that most LDCs remain very strongly concentrated in one product group. For instance, of the 46 countries with data availability for this indicator, a share of 70 per cent or higher is measured for seven countries for agriculture, nine countries for manufacturing and 11 countries for mining. This is also reflected in the Herfindahl index of export product concentration, where LDCs on average

<sup>17</sup> The Herfindahl index of export product concentration is defined on a 0 to 1 scale, where a value of 1 represents complete concentration in just one product while a value approaching 0 would mean complete diversification across products.

score a value of 0.53, substantially higher than other LICs (0.30), MICs (0.36) and HICs (0.29). In addition, LDCs also show a higher average level of export market concentration (0.41) than other LICs (0.31), MICs (0.36) and HICs (0.32), meaning that they are more dependent on just a few export markets than other countries. Both indicators are particularly high for small island LDCs as reflected in table 3.1.

**Table 3.1: Export concentration in LDCs**

	Export product concentration		Export market concentration		No. of products exported		Trade relationship Deathrate
	2005-08	1995-99	2005-08	1995-99	2006	1996	
Mean LDCs	0.53	0.50	0.41	0.48	237	152	0.47
Mean LDCs landlocked	0.48	0.53	0.38	0.55	242	152	0.47
Mean LDCs small Island	0.65	0.61	0.47	0.68	105	53	
Mean other Low Income Countries	0.30	0.30	0.31	0.31	234	243	0.36
Mean Middle Income Countries	0.36	0.35	0.36	0.42	548	463	0.30
Mean High Income Countries	0.29	0.29	0.32	0.40	744	707	0.16
Data source:	World Trade Indicators		World Trade Indicators		Author's calculation based on mirror data from COMTRADE		Brenton et al. (2011)

An interesting contrast with the Herfindahl indices emerges for the total number of products exported (mean LDCs: 237). On this indicator, LDCs do not perform worse than other LICs (234), with the notable exception of small island economy LDCs (105). The difference between this measure and the Herfindahl index is that the Herfindahl index weighs products (or markets) by their share in the export portfolio. In other words, it appears that LDCs do not export fewer products to fewer markets than other LICs, but that the weights of individual products in the overall export portfolio are distributed much less equally in the case of LDCs. The indicator in the final column of table 3.1 presents a potential explanation for this. This indicator is based on Brenton, Saborowski and von Uexküll (2011) that measures the death-rate of bilateral export relationships. This is a statistical measure of the likelihood of a given trade relationship for a particular product to a particular market to disappear in a given year. It thus shows the ability of a country to maintain and grow stable and lasting trade relationships. This measure is extraordinarily bad for LDCs: 47 per cent of total trade relationships disappear within a given year (36 per cent for other LICs, 30 per cent for MICs, 16 per cent for HICs). It thus appears that while LDCs export a similar number of products to a similar number of markets as other LICs, the problem for them is to maintain and grow these trade relationships to a point where they reach a significant size in the export portfolio.

In summary, LDCs have further liberalized their trade regimes over the last decades, but a whole host of competitiveness and supply-side restrictions, including high transport costs and other non-tariff barriers, continue to pose significant obstacles for exporting. LDCs have become more export oriented and their exports have grown substantially, in many cases based on mining products. At the same time, export concentration for many LDCs remains high and has even increased on average, especially for small island economies. One reason for that appears to be the fact that exporters often fail to establish and grow lasting trade relationships. All this indicates that LDCs may still not be well positioned to harness the full growth potential of open

trade regimes in the near future. Explicit efforts to address the diversification issue may be required, also on the trade front.

### ***Enhancing the employment effects of trade in LDCs***

The structure of LDC exports is also likely to have an impact on the potential of trade to be a driver of job creation in LDCs. Classical Heckscher-Ohlin type thinking – focusing on comparative advantage based on endowment with production factors – would predict an increase in demand for unskilled labour in developing countries that open up to trade. However, results in this regard have often been disappointing over the past decades, with many developing countries – including LDCs – experiencing jobless growth. One reason is that once endowment with natural resources is taken into account, these often dominate LDCs' comparative advantage and resulting exports. However, direct job creation in natural resource-based sectors is usually rather low as argued in Chapter 1 and by UNCTAD (2010), and overall effects depend on how resource revenues are managed.

Another reason why job creation effects of trade have tended to be disappointing lies in the fact that trade has tended to go hand in hand with technological progress in the most recent wave of globalization. While this is good news for overall growth and productivity, the effects on employment creation are ambiguous. On one hand, productivity growth allows for the expansion of exports, which leads to employment creation. On the other hand, productivity growth implies that the same amount of output is produced with fewer production factors, which often means less employment. While in most cases the former effect can be expected to dominate, the latter will still diminish the impact of a given level of growth on employment creation. Menezes-Filho et al. (2007), in their analysis of the Brazilian export sector even argue that the latter effect was stronger than the former, leading to an overall negative net employment effect in the export sector. With ongoing technological progress and increasing trade openness, the challenges for LDCs to ensure a positive labour market effect of growth are thus likely to increase. It will notably be crucial to ensure that the positive growth effects in exporting sectors spill over into the rest of the economy to allow for job creation there.

### ***LDC trade and poverty reduction: Spreading the benefits from trade***

While in the past the assumption was that trade would contribute to more equal income distribution within developing countries, recent developments in the empirical and theoretical trade literature indicate that the opposite may be the case. The share of the benefits from globalization going to workers may be lower than in the past due to erosion in the bargaining power of workers triggered by the combination of international competition and capital mobility (IILS, 2008; Glyn, 2007). Among workers, benefits may also be shared unequally. There are, for instance, indications that skilled workers stand to gain more than unskilled workers<sup>18</sup> and that wage premiums will mainly materialize in exporting companies.<sup>19</sup> These findings imply that as they open up to trade and more generally to globalization, LDCs are likely to face additional challenges in terms of ensuring that the trade-induced growth contributes effectively to poverty reduction.

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<sup>18</sup> Feenstra et al. (1997), Feenstra et al. (1999), and Crino (2009).

<sup>19</sup> Bernard et al. (2007), and Mayer et al. (2007).

Another challenge LDCs face when it comes to the trade-poverty linkage, is to protect their population against increased volatility that may go hand in hand with increased openness. Haddad Saborowski and Lim (2010) find that trade openness increases growth volatility for countries with low export diversification, but reduces it in countries with high levels of diversification. Given high levels of export concentration in LDCs and low income levels in these countries, the vulnerability of the local population appears to be particularly high, as evidenced in the 2008–09 crisis.<sup>20</sup>

With increasing openness to trade, LDCs are likely to face even more volatility in the future unless they make significant progress in export diversification. This makes it even more urgent to cushion the effect on poor households through adequate social safety nets.

### *Policy principles*

LDCs as a group are rather heterogeneous and this needs to be taken into account in policy design. Nevertheless, a number of general policy principles arise from the analysis above.

- A consensus is emerging in the development literature that free markets alone are insufficient to accomplish economic diversification and that governments need to play an important role in supporting the private sector. However, in doing so, it is crucial to avoid repeating the mistakes of past failed industrialization policies and to learn from success stories:
  - Supporting industries with a realistic view of a country's possibilities is perhaps the most crucial determinant of failure or success. (Lin and Monga, 2010) propose a framework where industries are selected by analysing the export patterns of countries with similar endowments, but about twice the per-capita income.
  - Quality upgrading within a given export sector, or support for existing non-traditional exports, including in agriculture and services, to access new markets can also be promising (Brenton and Walkenhorst, 2009).
  - Aid for Trade can play an important role to support a move towards enhanced export diversification.
  - Reducing trade costs – in terms of physical and market infrastructure, man-made barriers, etc. – is of particular importance for LDCs, and already a major field for Aid for Trade.
- Education and the skills of the local workforce are central for trade to lead to employment creation and higher incomes of workers. A successful strategy for maximizing the benefits of trade for LDCs should therefore put skills at the centre. This means investing in education, vocational training and lifelong learning for workers.

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<sup>20</sup> See, for instance, the example of Liberia discussed in Jansen and von Uexküll (2010). See also Bjorkman (2006), who shows how rural households in Uganda reacted to a decline in world market prices for coffee by taking their children – and especially girls – out of school.

- Woessmann (2010) emphasizes the importance of early childhood education for enabling the future workforce to continuously adjust to changes in the working environment triggered by globalization and technological change.
- Support to education and training policies that specifically identify and target skill needs for export growth and diversification present an additional and potentially very rewarding field for Aid for Trade.<sup>21</sup>
- Given their current high level of export concentration, LDC governments need to do more to protect poor people against unforeseeable shocks from abroad through strengthened social protection systems. In LDCs, social protection systems can also play a role in facilitating labour market adjustment to structural shocks to which modern, open economies are continuously exposed (Bacchetta and Jansen, 2003). As a consequence, initiatives like the UN Social Protection Floor initiative can play an important role in strengthening the positive impacts of trade and globalization more generally.
- LDC governments may want to consider taking action to ensure that gains from trade are shared widely and effectively contribute to poverty reduction. Redistributive policies should be designed in a way that maintains incentives for employment and minimizes moral hazard and the risk of long-term dependence on public transfers. Minimum wage legislation has often proven to be an effective means to ensure that workers receive at least a salary that allows them to maintain their families in decent living conditions. The promotion of fair tripartite dialogue and public advocacy for workers' demands can also help in this regard.
- Finally, while most of the policy discourse is on measures that LDCs can adopt in order to perform within the global economy, the question remains how the global economy could be reformed in order to become more supportive of LDC development.
  - The first crucial point in this regard is market access. While substantial progress has been made through initiatives such as the EU's "Everything but Arms" and the United States' "African Growth and Opportunity Act" to reduce tariff barriers to LDC exports, more can be done. This includes a reform of agricultural subsidies in industrialized countries, reductions of non-tariff barriers and technical support for compliance with standards, as well as market access to important emerging markets for LDCs.
  - Market volatility can be very harmful for both growth and social development in LDCs. Measures at the global level to reduce commodity market volatility would be very helpful for LDCs to enhance the predictability of export revenues as well as import prices, including for food. Recent experience suggests that commodity market volatility is on the rise, mainly due to increased financial speculation (World Bank, 2010), thus initiatives to regulate these activities on a global level would be highly desirable.

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<sup>21</sup> The ILO has developed the Skills for Trade and Economic Diversification (STED) methodology to provide analysis and country-specific recommendations in this field. For more information on STED, see: [http://www.ilo.org/employment/Whatwedo/Projects/lang--en/WCMS\\_151399/index.htm](http://www.ilo.org/employment/Whatwedo/Projects/lang--en/WCMS_151399/index.htm).

## Chapter 4: What a country produces matters: Agriculture, industry and services

### *A long history of neglect and stagnation of agriculture ...*

By the turn of the millennium, per-capita production of cereals in Rwanda was a mere half of what it had been 20 years earlier. This dismal development was the combined effect of population increase and a secular trend of slowly falling yields, which was only partly compensated for by an increase of the cultivated area. In a profoundly agrarian society, where agriculture provides the main source of sustenance and employment for the vast majority, the growth of per-capita food production captures changes in productive employment, welfare as well as overall economic development better than most other indicators. The story of Rwanda was until recently one of long-term secular developmental regression.

The case of Rwanda is far from unique, but reflects quite well the picture in many LDCs, not least in sub-Saharan Africa. The average cereal yields in LDCs are only half of the world average, a gap that has remained constant over the past two decades.<sup>22</sup> The slow growth in food production, combined with rapid population growth, has resulted in an increasing food deficit. Thus, the aggregate food import bill of the LDCs increased from US\$9 billion in 2002 to US\$24 billion in 2008.<sup>23</sup> The development of agriculture was particularly bleak among the LDCs in sub-Saharan Africa, where yields for main food crops hardly increased at all between 1960 and 2000, while they fell substantially in per capita terms. This development was in sharp contrast to the picture in other parts of the world. Thus, while average yields in sub-Saharan Africa were only marginally lower than those in East Asia in 1960, by 2000 they were a mere quarter of those in East Asia and 40 per cent of those obtained in South Asia.<sup>24</sup> Meanwhile, population growth continued unabated in sub-Saharan Africa, while it had tapered off significantly in most of Asia. By the turn of the millennium, it appeared that the LDCs in sub-Saharan Africa were caught in a Malthusian trap and that they were losing the race of food production versus population growth.<sup>25</sup> In 14 out of 22 LDCs for which data are available, per-capita food production actually fell between 1990 and 2005.<sup>26</sup> Twelve of these countries were in sub-Saharan Africa.

The development of agriculture displayed a different but somewhat mixed picture in the LDCs outside sub-Saharan Africa. In all LDCs on continental Asia, value added in agriculture increased at a faster pace than the rural population between 1990 and 2005.<sup>27</sup> In Bangladesh, Cambodia, the Lao People's Democratic Republic and Nepal, both yields and production of cereals increased faster than the rural population. Bangladesh and Nepal stand out due to the extremely high population pressure on land. This contrasts with Cambodia and the Lao People's Democratic Republic where the population-to-land ratio remained comparatively favourable.

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<sup>22</sup> *The Least Developed Countries Report, 2010*, p. 15.

<sup>23</sup> *The Least Developed Countries Report, 2010*, p.16.

<sup>24</sup> *World Development Report, 2008*, p.15.

<sup>25</sup> The same was true for Haiti.

<sup>26</sup> Burundi, Democratic Republic of the Congo, Eritrea, Haiti, Madagascar, Mali, Rwanda, Senegal, Sierra Leone, United Republic of Tanzania, Togo, Uganda, Yemen and Zambia (*World Development Report, 2008*, pp. 320-327). Data are not available for all countries.

<sup>27</sup> *World Bank Report, 2008*, pp. 320-327. Data were not available for Bhutan and Myanmar.

The increase in per-capita food production in rural areas was primarily a result of growth of production, but also due to a slowdown of the growth of the rural population. The most impressive growth of production was registered in Cambodia and in the Lao People's Democratic Republic, in both cases starting from low yield levels, while the performance of agriculture in Nepal was lacklustre. The development of agriculture in Bangladesh has also been very encouraging. By 2005, average yields were higher in Bangladesh than in any other LDC and the danger of falling into a Malthusian trap seemed to have been averted. Haiti, the only LDC in Latin America, suffered a decline in agricultural production between 1990 and 2005, primarily due to a fall in yields. Combined with population growth, this development goes a long way to explain the impoverishment of rural Haiti.

Most of the small island states have a long history of slow-growing or stagnant agricultural sectors. The prospects for agricultural development in the atoll-based countries (Kiribati, the Maldives, Tuvalu) are severely constrained by nature. In Melanesia (notably the Solomon Islands and Vanuatu) a continuation of subsistence-based slash and burn cultivation in the context of rapid population growth has resulted in unsustainable land use and competition for land. Elsewhere, such as in Kiribati, Samoa and Tuvalu, remittances from family members working abroad often provide a valuable complement to meagre incomes from agriculture.

Agriculture<sup>28</sup> provides the main source of employment and income for approximately two-thirds of the labour force in the LDCs in sub-Saharan Africa and for a slightly lower share in most of the LDCs in Asia.<sup>29</sup> An even larger share of the working poor is found in this sector. Increasing productivity and returns to labour in agriculture is the key to increasing productive employment and decent work and progress towards the MDG 1.B, at least in the short and medium term. There is a lack of comprehensive region-wide data on returns to labour in agriculture. However, the growth of production and of yields of cereals cast against the growth of the rural population provides a reasonable proxy for the development of labour productivity and incomes in agriculture. Between 1990 and 2005, the growth of yields of cereals was slower than the rural population growth in 18 out of 28 LDCs<sup>30</sup> for which data are available. All but two of these countries were in sub-Saharan Africa. In nine LDCs for which data are available, the growth in production of cereals fell short of the rural population growth.<sup>31</sup> As a result of this dismal development, average output per worker in agriculture for the LDCs in 2008 is estimated to have been below US\$300.<sup>32</sup> The slow progress towards the halving of income poverty among the LDCs is closely linked to the slow progress in reducing the deficit of productive employment and decent work, which in its turn can primarily be explained by the slow growth and in many instances even decline of labour productivity and returns to labour in agriculture.

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<sup>28</sup> Including fishing, hunting and forestry.

<sup>29</sup> The agricultural sector accounts for approximately half of the labour force in Bangladesh and Cambodia, two-thirds of the labour force in Nepal and more than four-fifths in the Lao People's Democratic Republic.

<sup>30</sup> Benin, Burkina Faso, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Eritrea, Ethiopia, Haiti, Mali, Niger, Rwanda, Senegal, Sierra Leone, United Republic of Tanzania, Uganda, Yemen and Zambia.

<sup>31</sup> Burundi, Democratic Republic of the Congo, Eritrea, Haiti, Madagascar, Senegal, Sierra Leone, United Republic of Tanzania, Yemen and Zambia. Excluding the small island states.

<sup>32</sup> *The Least Developed Countries Report, 2010*, p. 15. At 2000 constant prices.

The generally bleak picture of the development of agriculture in the LDCs in sub-Saharan Africa and the more positive, though mixed, performance in the LDCs in Asia can be attributed to a range of factors. Some external factors that adversely affected the development of agriculture were common to more or less all LDCs.

- World market prices for most food crops remained stagnant at low levels for several decades, resulting in a gradual deterioration of the terms of trade for agriculture.
- Trade liberalization exposed domestic agriculture fully to international competition. In many instances trade liberalization was undertaken rapidly with scant attention paid to the dislocational impact that this had on domestic production and to the inevitably gradual nature of structural change. The result was in many instances Schumpeterian destruction without any accompanying creation. Furthermore, the world market for food products is far from a level playing field. Massive subsidies to the agricultural sector in developed countries provide the agricultural producers in these countries with an unfair competitive advantage that agricultural producers in LDCs could not match, nor defend themselves against.
- Donor support to agricultural development also waned as the focus shifted to the social sectors and to investments in human resources and, subsequently, to governance issues. The share of total ODA that was channelled to agricultural development fell sharply in the 1980s and 1990s, from 16 per cent in 1980 to less than 4 per cent in 2005, while in absolute nominal terms it declined by 50 per cent over the same period.<sup>33</sup>

A range of additional factors served to create particularly inimical conditions for agriculture in the LDCs in sub-Saharan Africa.

- During the period of structural adjustment programmes which swept through sub-Saharan Africa in the 1980s and 1990s, the publicly funded, and at times publicly run, infrastructure for rural and agricultural development was largely dismantled to give way for market-based solutions. Not only subsidy schemes, but also government-funded extension services and interventions to facilitate market access, were closed down. In retrospect, it is clear that in most instances the market failed to step in where the State stepped out. The result was a reversal of earlier trends towards increased intensification of agriculture and production for the market and a retreat into low-productivity subsistence farming, often combined with a diversification of household income strategies under duress as agriculture no longer sufficed as a source of sustenance and income.
- This period was also characterized by a stagnation or decline in investments in rural physical infrastructure. In most countries, heavy debt-servicing burdens and a diminished fiscal revenue base<sup>34</sup> reduced the fiscal space considerably, but there was also a shift in focus away from the productive sectors in general, and agriculture in particular, towards social sector expenditure.
- The ability of domestic agricultural producers to compete with foreign imports has in many countries been further undermined by upward pressure on the exchange rate. In

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<sup>33</sup> *World Development Report, 2008*, p. 41. Figures refer to all ODA, not just to LDCs.

<sup>34</sup> Not least through the reduction of import duties, which had been a major source of income in many countries.

many LDCs, revenues from export of minerals and natural resources and/or inflow of ODA have resulted in an upward pressure on the exchange rate. It would appear that such appreciations have in many instances also been supported and/or induced by macroeconomic policies. According to the IMF, all but a few countries in sub-Saharan Africa registered real appreciation of their exchange rate in the years 2004–10.<sup>35</sup>

- High costs of transport and poorly functioning markets result in large discrepancies between farm-gate prices and urban retail prices of food products and make diversification into high value but perishable products, such as fruit and vegetables, difficult.

In Asia, Bangladesh in particular benefitted from the Green Revolution. The combination of new high-yielding varieties of rice, a further development of irrigation providing secure and predictable access to water, and an increased application of fertilizers and other soil-enriching and yield-enhancing inputs resulted in a significant increase in the returns to land and permitted increased use of labour without diminishing returns. This development, which started in East Asia already in the 1970s, had by the second half of the 1980s spread to much of South-East and South Asia and continued to positively influence agricultural development in Bangladesh in the 1990s.<sup>36</sup> By contrast, the Green Revolution appears to have largely bypassed the other LDCs in Asia.

### *... coupled with a failure to develop manufacturing*

Parallel to the dismal development of agriculture was, with a few exceptions, a similarly lacklustre development of the manufacturing sector, which until recently remained stagnant at a very low level of development in most LDCs. In only four LDCs did manufacturing account for more than 15 per cent of GDP by 2009,<sup>37</sup> and at least 30 out of the 49 LDCs did not exceed 10 per cent of GDP. Indeed, in more than half of the LDCs, the share of manufacturing in GDP actually fell over the past 20 years.<sup>38</sup>

In some instances, poor governance and enforcement of the rule of law, sometimes regressing into violent conflict, provide a ready explanation for an absence of productive transformation and economic development. However, even when these factors are controlled for, the picture of an undeveloped and stagnant manufacturing sector remains. Table 4.1 provides information on the growth of value added in manufacturing and of its share in total GDP for LDCs that fulfilled the twin criteria of not having suffered any violent conflict in the past ten years and having had an average Country Policy and Institutional Assessment (CPIA) score of 3.4 or more in the past four years. In only two (Bangladesh and Lesotho) out of the 17 countries that met these two criteria did manufacturing account for more than 15 per cent of total added value produced in the economy in 2009, while in half of them this contribution was less than 10 per cent. In a majority of the countries (nine out of 17), the share of manufacturing in GDP had actually shrunk since 1990.

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<sup>35</sup> IMF (2008), pp. 11-12, IMF (2010), p.9.

<sup>36</sup> See for instance Ishikawa, Yamada and Hiroshima (1982), and Gooneratne (1982).

<sup>37</sup> Bangladesh, Cambodia, Equatorial Guinea and Madagascar.

<sup>38</sup> See appendix table A1.

**Table 4.1: Economic growth and share of manufacturing in GDP in LDCs (fulfilling the criteria of no violent conflict in past ten years and an average CPIA score of 3.4 or above in the past four years)**

	% share of total value added (GDP)				Avg. Annual growth (%)		
	1980	1990	2000	2009	1980-94	1995-04	2005-09
Bangladesh	15	13.1	15.4	17.8	3.7	6	8.4
Benin	6.2	7.4	8.6	7.8	6.4	4.9	1.7
Bhutan	3.3	6.5	7.8	8.3	14.2	5.6	12
Burkina Faso	13.5	13.5	11.6	13.3	2	8.3	3.1
Ethiopia		4.9	5.0	4.5		3.5	9.9
Lesotho	4.8	8.8	12.9	20.1	10.1	12.9	4.6
Madagascar	17.9	13.7	13.9	14.3	-1.3	3.4	3
Malawi	9.9	11.9	9.3	11.3	2.8	-0.1	15.4
Maldives	7.5	8.8	7.7	6.6	12.4	7.8	4.4
Mali	7.1	8.6	10.9	6.2	8.5	3.8	-6.4
Mozambique	12.9	9	11.8	13.6	-3.8	18.5	4.2
Rwanda	8.9	9.7	6.9	6.7	-4.1	7.4	5.6
Samoa	18.3	18.2	15.3	10	0.2	3.6	-9.8
Senegal	13.6	16.5	15.7	13.2	3.2	3.5	0.2
Uganda	5.5	4.6	7.3	7.1	5	8.8	6.7
Tanzania	11.6	8	8.2	9.5	0	6.6	9.5
Zambia	7.6	11	11.1	10	2.7	4.5	3.2

Source: <http://unstats.un.org/unsd/snaama>.

The dismal development of agriculture and the weak manufacturing base are strongly interlinked. Intensification and increased market-orientation of agriculture, which are *sine qua non* for a dynamic and sustainable development of this sector, depend crucially on secure access to inputs and to markets for the output. The manufacturing sector can create these much-needed upstream and downstream linkages to agriculture, thus facilitating the development of agriculture as well as enhancing the impact of this development on growth and employment in the economy as a whole. A dynamic development of agriculture, on the other hand, provides an indispensable source of broad-based domestic demand that tends to be crucial to sustain growth and economic diversification, not least in the early phases of economic development. A more efficient agricultural sector and stronger rural-urban economic links would also serve the purpose of reducing food prices and the cost of living in urban areas. As food consumption accounts for more than half of total household expenditures among the urban poor, lower food prices would reduce urban poverty at the same time as they would serve to improve competitiveness in the non-agricultural sectors.

The results of the twin failures of agriculture and of manufacturing are readily seen in many LDCs in sub-Saharan countries as well as elsewhere, e.g. in Haiti. Stagnating agricultural production combined with population pressure on land results in declining productivity and returns to labour in agriculture and in accelerating land fragmentation and, more often than not, depletion of soil nutrients and other forms of environmental degradation. This vicious circle pushes people out of agriculture in search of alternative sources of employment and income. Push factors rather than pull factors fuel urbanization, while informal sector services provide a source of employment of last resort. Rural poverty becomes urban poverty, and a quasi-diversification of the economy appears as a result of desperate survival strategies rather than exploitation of economic opportunities and comparative advantages. The result, in the form of unrelenting growth of urban ghettos, expanding informal economies and increasing divides between the formal and informal urban economy, can be witnessed in many cities in the LDCs.

In some LDCs, labour migration abroad has provided a relief from this vicious circle. The concept of MIRAB economies was coined some 30 years ago to characterize many of the small island countries in the South Pacific, the economies of which were seen to be based on and driven by migration, remittances, aid and bureaucracy.<sup>39</sup> Here, labour migration abroad has served to detach domestic consumption from production and has permitted the perpetuation of a subsistence-oriented mode of agricultural production and a lack of development of tradables as increasing consumption aspirations and need for cash incomes have been met by an increasing inflow of remittances from migrant workers.<sup>40</sup> Elsewhere, too, labour migration has provided a safety valve to an unsustainably slow progress in domestic economic development. For instance, Nepal has emerged as a major source country for overseas migration. It is estimated that some 1.3 million Nepalese currently work abroad and that the aggregate amount of money they remit home has reached the equivalent of 23 per cent of GDP. Almost a quarter of all Nepalese households receive remittances from family members working abroad and much, if not most, of the reduction in income poverty in Nepal in recent years can be attributed to this source of income.<sup>41</sup>

However, while export of labour may provide a palliative in the short term, it hardly provides a sustainable solution to the challenge of achieving productive employment and decent work for all. Indeed, on balance, it may even make a productive transformation and a sustainable development of the domestic economies more difficult. It tends to reduce the competitiveness of the domestic economy through an upward pressure on the exchange rate as well as on domestic wages at the same time as the pressure to undertake necessary structural reforms is reduced as economic activities and productive employment becomes geographically detached from consumption. It results in a loss of human resources and can result in a migration culture where people increasingly look abroad rather than at home for the solution to their aspiration for a better life, thus hampering entrepreneurship.

### ***A bleak past need not imply a bleak future***

Conditions for sustained high rates of economic growth seem better today than they have been for decades. Indeed, the high rates of growth in the period leading up to the financial and global crisis, averaging 7.4 per cent for the region as a whole between 2003 and 2007,<sup>42</sup> is evidence of a break with the past prolonged period of stagnation. The past growth and present growth optimism reflect significant improvements in a number of key areas that underpin economic development.

- Past investments in human resources are beginning to yield results. Net enrolment in primary education has increased significantly, not least in the sub-Saharan LDCs. While enrolment rates in secondary education are still lagging far behind those in primary education, many countries have achieved significant improvements in access to secondary education in the past decade. Indeed, in 16 out of 35 countries for which data

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<sup>39</sup> Bertram and Watters (1985), pp. 497–519; Bertram and Watters (1986), pp. 47-59; Watters (1984). See also Ward and Proctor (eds, 1982).

<sup>40</sup> In most of these countries, the picture has changed little since the MIRAB label was coined.

<sup>41</sup> Khare and Slany (2011).

<sup>42</sup> *The Least Developed Countries Report, 2010* (2010: 4).

are available, gross enrolment in secondary education increased by 15 percentage points or more between 2000 and 2009.<sup>43</sup> As a result, the young generation now entering the labour market is much better equipped than previous generations to take up productive employment.

- Fertility has fallen quite sharply in the past two decades in most LDCs.<sup>44</sup> As birth rates fall in the wake of falling fertility, the dependency ratio is expected to improve in the coming years, while the population in the economically active age groups will continue to increase at a very rapid pace for at least a decade. Provided that the large number of new entrants into the labour force can be productively employed, this opens a window of opportunity, as falling intra-household dependency ratios will increase per-capita income and the economic space for saving and investments at the same time as pressure for increased public expenditure on education may eventually begin to decline.<sup>45</sup>
- The rule of law and the quality of governance has improved among the LDCs, with a few exceptions. The number of LDCs involved in violent conflicts has declined to a handful and changes in political power based on democratic elections have become a rule rather than an exception.
- The vast majority of the countries in the region by now have a well-established record of macroeconomic stability. The levels of external debt, though rising, are also much below what they were a decade ago.
- Access to anti-retroviral therapy (ART) among those suffering from AIDS is rapidly increasing at the same time as the numbers of newly infected with HIV is levelling off and falling in most countries in most LDCs, notably in the worst-affected LDCs in southern Africa.

### ***A number of factors augur well for agricultural growth***

First and foremost of these is no doubt the low level of production at present. Yields of food crops in LDCs are with a few exceptions far below those achieved in more developed countries.<sup>46</sup> In most LDCs in sub-Saharan Africa, yields still hovered around 1,000 kg/ha in 2003–05. While climatic and other natural conditions do matter, they do not explain the comparatively lower yields among LDCs in sub-Saharan Africa. Agricultural research and experimental farms have time and again and in country after country confirmed that actual yields are far below the potential.<sup>47</sup> The very low use of cash inputs in agriculture testifies to the low

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<sup>43</sup> Bhutan, Cambodia, Comoros, Djibouti, Ethiopia, Guinea, Guinea-Bissau, Lesotho, Maldives, Mali, Mozambique, Myanmar, Senegal, Solomon Islands, Timor-Leste and Zambia (World Development Indicators, 2010: see <http://www.worldbank.org>).

<sup>44</sup> While most countries have seen a fall in fertility, there are large differences in the current level of fertility, which ranges from over 6 in Chad, Mali and Uganda, to less than 3 in Bangladesh and some of the LDCs in the South Pacific.

<sup>45</sup> This does not apply to some of the LDCs in the South Pacific, notably Kiribati, Samoa and Tuvalu, which have already passed through this phase of the demographic transition.

<sup>46</sup> In only one LDC in sub-Saharan Africa (Madagascar), but four in Asia (Bangladesh, Cambodia, the Lao People's Democratic Republic and Nepal) did average yields of food crops exceed 2,000 kg/ha in 2003–05, as against, for instance, over 5,000 kg/ha in China and 4,300 kg/ha in Indonesia.

<sup>47</sup> For example, in Rwanda average yields of main crops in 2000–05 were estimated to be a mere 25–35 per cent of the potential (Ronnas, Backéus and Scheja, 2010: 42). Similar discrepancies have been estimated for Malawi and Uganda.

intensity of cultivation. By 2002, a mere 3 per cent of the arable land in sub-Saharan Africa was under irrigation, improved seeds were used on a quarter of the land and fertilizer application had reached a mere 13 kg of nutrients per hectare, compared to 98 kg/ha in South Asia and 190 kg/ha in East Asia.<sup>48</sup> The very low level of cash inputs in agriculture suggests that even fairly modest investments in an intensification of production may yield high returns and that there is a large scope for increasing production through policies aimed at creating a more enabling environment for farmers.

Indeed, in an increasing number of countries in the region, a renewed policy focus on agriculture and policy interventions aimed at creating a more enabling environment and better incentives for farmers to move towards a more intensive and market-oriented mode of operation are yielding very encouraging results indeed.

In Rwanda, an ambitious programme of modernization and intensification of agriculture and for reversing environmental degradation has had quite spectacular initial results. The programme includes a series of actions to intensify and develop sustainable production systems in agriculture, to improve the technical and organizational capacity among farmers, and to promote market access, commodity chains and agro-business.<sup>49</sup> The response among the predominantly smallholder population has been instantaneous. A rapid increase in the use of cash inputs, such as fertilizers and improved seeds, has resulted in a series of bumper harvests and to a growth of value added in agriculture by 6.5 per cent in 2008 and 7.6 per cent in 2009.

In Malawi, which has a long and unfortunate history of recurrent crop failures and food shortages, a highly controversial programme of fertilizer subsidies has resulted in a significant boost in the production of maize, the main staple, to the point where the country has become a net exporter.<sup>50</sup> Agricultural growth has boosted incomes from employment in agriculture in Malawi and has led to an estimated decline in the poverty incidence from 52 to 40 per cent in the past five years.<sup>51</sup>

In Ethiopia, a strengthened policy focus on agriculture and rural development accompanied with a significant increase of public expenditure in these areas has resulted in sustained high rates of agricultural growth, reaching over 10 per cent per year since 2005.<sup>52</sup> Other LDCs in the region where pro-agriculture policies have resulted in significant per-capita increase in agricultural production in recent years include Angola, Malawi, Mali, Mozambique, Sudan and Togo. Indeed, between 2005 and 2009, value added in agriculture increased by more than 4 per cent per year in 20 of the LDCs in sub-Saharan Africa (see appendix table A8). While conditions can vary greatly from country to country and it is unlikely that there can be one salient formula, the experiences of the increasing number of agricultural success stories in the region deserve to be studied, not only as a source of inspiration but also with a view to distil generic conclusions and lessons.

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<sup>48</sup> *World Development Report, 2008*, p. 52. In most countries, fertilizer use per hectare of arable land did not reach 10 kg.

<sup>49</sup> EDPRS (2007).

<sup>50</sup> Durevall and Mussa (2010).

<sup>51</sup> Durevall and Mussa (2010).

<sup>52</sup> For details on the policies and the strategy, see PASDEP (2006).

Among the LDCs in Asia, intensification of agriculture has generally progressed much further than among the LDCs in sub-Saharan Africa. This is particularly the case in Bangladesh, but also in the lowlands of the Lao People's Democratic Republic, where rice yields exceed 3,000 kg per hectare. In both Bangladesh and the Lao People's Democratic Republic, agricultural development has contributed significantly to a reduction in income poverty and has also served as a growth engine for SMEs and rural industries.

***There is a need for a shift in focus from triggering to sustaining growth through a productive transformation***

As agricultural growth is taking off in an increasing number of countries in the region, the policy focus will need to shift from triggering agricultural development to sustaining it. This is likely to involve a whole range of challenges. There can be no blueprint for the road ahead as each country will need to chart its own course. However, some salient issues that will need to be taken into consideration can nevertheless be identified.

Policies will need to recognize that in most countries the agricultural population has for quite some time been caught in a poverty trap, where increasing population pressure combined with stagnant levels of production have resulted in stagnant or falling farm incomes. The less fortunate have been pushed downwards in a vicious circle until they reach a point where work on the farm is no longer sufficient to make ends meet and they have to resort to distress migration into the lowest end of the non-farm sectors. Only a minority have managed to escape from poverty by acquiring more land and/or by finding means to intensify farming. This vicious circle needs to be broken. To this end, sustained economic growth will require a productive transformation based on two pillars: intensification of agriculture with a focus on smallholder farmers, and a broad-based and rapid development of the non-farm sectors, with a particular focus on manufacturing. Continued high rates of labour force growth and the still-limited capacity of the non-farm sectors to generate productive employment, even if high rates of growth are achieved, imply that the agricultural sector will continue to absorb more labour in the short and medium term, at the same time as incomes and employment conditions for the vast number of working poor in this sector need to be improved. Comprehensive and forceful policies are needed to break the vicious circle in agriculture. Lack of secure market access and predictable and sufficiently attractive prices, the risks of crop failure inherent in weather-dependent rain-fed agriculture and the inability to assume calculated risks due to lack of economic margins, are all binding constraints that need to be addressed to make it possible for farm households to make the cash investments necessary to intensify production and increase the returns from farming. In most LDCs, a productive transformation needs to take its starting point in agriculture.

***Sustaining inclusive, job-rich growth requires a comprehensive approach***

Parallel to an intensification of agriculture, an increase in productive non-farm employment, in the form of wage and salary employment or successful non-farm entrepreneurship, must be a core component in development strategies. The non-farm sectors of the economy will gradually need to assume an ever larger role as the main source of productive employment. To this end, a successful economic diversification is needed. The fact that most poor people live in rural areas and derive their living from agriculture does not necessarily imply that policies aimed at agricultural intensification will be particularly pro-poor. Access to land will largely determine

the benefits to individual households from such an intensification. In many LDCs, land distribution is today highly unequal, with large holdings coexisting with large numbers of landless or near-landless agricultural households. Not least for the young growing up in these impoverished rural households, access to productive non-farm employment opportunities is likely to offer the only viable road out of poverty.

Such a two-pronged growth strategy can provide the basis for sustainable and rapid job-rich growth. At the same time as successful agricultural intensification depends on development of upstream and downstream linkages and the development of supporting non-agricultural economic activities, an improvement of agricultural production and incomes resulting from intensification would, through increased local demand, release growth constraints on the non-agricultural sectors, resulting in enhanced non-farm employment and income opportunities, which in their turn would create more attractive exit opportunities for labour from agriculture, leading to higher incomes for those remaining on the farm. A virtuous circle, based on pull rather than push factors, shifting labour out of agriculture, could result, as evidence from elsewhere clearly shows. In order to be sustainable and sufficiently forceful, such a development needs to be supplemented by a broad-based – branch-wise as well as geographically – industrialization, aimed at creating a strong and competitive manufacturing base.

There is increasing evidence that some LDCs, not only in Asia, but also in sub-Saharan Africa, have embarked on such a development. In Ethiopia, the most populous LDC in sub-Saharan Africa, value added in manufacturing has been increasing by 10 per cent per year since 2005, in tandem with an equally rapid growth in agriculture. Almost equally high or higher rates of manufacturing growth were registered in Malawi, Mauritania and the United Republic of Tanzania. In all of these cases, growth in manufacturing took place alongside agricultural growth. Two other high performers were Rwanda and Uganda.<sup>53</sup> Indeed, a closer look at the branch structure of manufacturing in some of the recent fast-growing countries shows that food and beverages account for up to three-fourths of the manufacturing value added, suggesting that development of agriculture and of manufacturing feed on, and into, each other. However, there are exceptions to this rule. In Ethiopia, which has a long history of import substitution, the manufacturing sector is much more diverse.

With the exception of Nepal, the LDCs in continental Asia have achieved high growth since 2005, based on continued growth in agriculture as well as economic diversification and increasingly high rates of growth in manufacturing. Cambodia stands out as the clearest case of export-led manufacturing growth, entirely dominated by textiles. Export has played an important role for manufacturing development in Bangladesh as well, but in Bangladesh the manufacturing sector clearly also feeds on the large and growing domestic market and, as a result, the manufacturing base is quite diversified.

The very rapid developments in the field of information and communications technology (ICT) have removed a large number of technical barriers to trade in services, a process that seems set to continue. Global trade in services is increasing rapidly and a global market for many, though not all, types of services is in the making. Many LDCs would *prima facie* appear to have a

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<sup>53</sup> In addition, a number of resource-rich countries registered rapid growth of manufacturing, notably Angola, Equatorial Guinea, and Sudan.

comparative advantage in the production of tradable services. Unlike manufactured goods and commodities, impersonal services are not affected by high transport costs resulting from remoteness from main markets and poor transport infrastructure. They also tend to require less capital investment, be less subject to economies of scale and to be skill- rather than capital-intensive.

Indeed, there are a few success stories in the area of tradable services. Among the small island LDCs, the Maldives stand out as star performers. The Maldives offer a good example of how lack of economies of scale and “the tyranny of distance” need not be binding constraints on growth, and that competitiveness and growth driven by tradables need not necessarily involve manufacturing, but may be based on services – in the case of the Maldives, for example, tourism. Cape Verde, which recently graduated out of the LDC category, also successfully developed tourism as a source of productive employment and growth. Tourism is also emerging as an increasingly important sector in a number of “continental” LDCs in both Asia and sub-Saharan Africa. Gambia has for some time been a well-developed tourism sector. Cambodia, Rwanda, the United Republic of Tanzania and Uganda are examples of LDCs where “niche” tourism is gaining momentum. In Rwanda, IT-based services are strategically being developed as a future cornerstone of the economy. Some LDCs, notably Vanuatu, have tried to specialize in global financial services. However, with minor exceptions, the LDCs have yet to tap into and exploit the rapidly developing potential resulting from IT-based outsourcing of back-office services.

Domestically, the development of a wide range of services – trade, repair shops, financial services, etc. – are part and parcel of a productive transformation based on agricultural intensification and economic diversification. They need to grow hand in hand with an increased market-orientation and intensification of agriculture and development of manufacturing, feeding on as well as into the development of these sectors.

### ***The road forward towards successful productive transformation and sustained inclusive job-rich growth***

The past half century of development under different development regimes has taught us that sustainable economic development that is both inclusive and job-rich needs to be accompanied, indeed driven, by a continued productive transformation. Well functioning and efficient markets are indispensable for efficient resource allocation and are a necessary, but not sufficient, condition for a level playing field for all economic actors. However, efficient markets are not by themselves enough to ensure economic development and productive transformation, nor are openness to the outside world and integration in the global economy. Indeed, evidence from most LDCs suggests that neither do efficient markets develop by themselves. When ILO constituents are asked to identify main constraints on the development of productive employment, poorly functioning markets are regularly bought up as a main obstacle. Achieving a well-integrated domestic economy, with strong inter-sectoral as well as interregional and rural-urban linkages, is indispensable for enabling productive transformation and putting the LDCs on a path of sustainable job-rich growth. This will require an active developmental role of the State: it requires policies and interventions that actively foster the development of efficient markets, but also steps in with compensating measures where markets do not function well. It requires adequate provision of public goods and forceful policies to ensure development with equity. It requires a common vision of the future, developed through social dialogue, and a State that is

equipped with the capacity, the mandate and the tools to implement well-designed strategies, including industrial strategies, to this end. As spelt out at a recent high-level conference of ministers of economy and finance in Malawi, generating productive employment and decent work for all “... reinforces the call for a ‘Developmental State’ that goes beyond ‘the Capable State’ by setting a long-term development vision that provides an anchor for economic transformation and poverty reduction through strategic public investment and other development policy measures.”<sup>54</sup>

Indeed, the increasing number of emerging success stories of LDCs, not only in Asia, but also in sub-Saharan Africa, who are beginning to break out of the vicious circle of agricultural stagnation and near-absence of manufacturing, are hallmarks of such successful policies; of the fact that LDCs in sub-Saharan Africa and elsewhere are addressing the challenges of making a decisive break with the economic stagnation and failure to generate productive employment and decent work. Radical changes in overall development philosophies and strategies – away from the dogma of prescribing one-size-fits-all liberalization, privatization and macroeconomic stability as more or less successful prerequisites for economic development to assigning a much more active developmental role to the State – are in these countries yielding impressive and rapid returns.

### **The implications of climate change on the agriculture sector in LDCs**

Approximately 3.4 billion people – slightly under half of the world’s population – live in rural areas. Developing countries constitute 97 per cent of that population. When these variables are crossed with poverty indicators, it turns out that about 75 per cent of the world’s poor reside in rural areas. Further, the incidence and severity of poverty in these areas are greater than in urban areas in most developing countries.

While a strong relationship links developing countries with rural population and poverty, there is evidence that rural poor will also feel most strongly the impact of climate change. This more pronounced vulnerability to environmental stress is owing to their heavy dependence on natural capital such as soil, forests and fish stocks, and ecosystem services for their livelihoods and for their work in agriculture, forestry and fishing. The sectors on which the poor tend to depend are those most affected by climate change. At the same time, poor countries, communities and persons are least able to adapt to climate change and reduce the immediate negative impacts on their lives. In particular, sub-Saharan Africa, many poor island states and other food-insecure countries are mostly at risk from the effects of climate change.

At the regional level, the IPCC <sup>55</sup> *Fourth Assessment Report* provides evidence of the implications of climate change on LDCs. The report notes that sub-Saharan Africa – where food typically makes up more than 60 per cent of the consumption basket – is especially vulnerable to climate change, with agricultural yields expected to fall by up to 50 per cent in some countries and between 75 and 250 million people exposed to increased water stress by 2020 compared to 1990 levels.

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<sup>54</sup> AU/ECA Conference (2010).

<sup>55</sup> Intergovernmental Panel on Climate Change (2007).

At the country level, several cases expose the potential implications of climate change on LDCs:<sup>56</sup>

- In Cambodia, the impacts of climate change, including increased frequency and severity of floods, dry spells and drought events on agriculture, particularly on rice cultivation, are predicted to adversely affect food production and food security in rural areas.
- In Samoa, climate change impacts, particularly related to failing crops in conditions of increasing average temperatures and rising groundwater salinity levels, are expected to adversely impact agriculture and food security.
- In the United Republic of Tanzania, the Pangani river basin is of major importance to the country in terms of hydro-power production, irrigated agriculture, livestock, fisheries, etc., but water demand is rapidly rising while water flows are in decline, largely due to changing climatic patterns including a decrease in rainfall and increase in temperature and evapo-transpiration.
- In Uganda, one of the potential effects of climate change on the poor is that a 2 degrees centigrade increase in temperature would render much of Uganda unsuitable for coffee cultivation, which is a major export product and widely credited with being the primary driving force behind Uganda's success in reducing poverty in the 1990s (IPCC, 2007).

These tendencies may be exacerbated by the fact that poverty is associated with unsustainable practices and damage to the environment. Poverty can result in environmental consequences if crop production is based upon unsustainable land use, which in turn results in the depletion of soil nutrients and cultivation of unsuitable, marginal land that can lead to soil erosion and the reduction of natural habitats (UNEP, 2011).

Thus, climate change puts major pressures on the agricultural sector and rural economy. Given the relative weight of the sector as an employer in LDCs, also the jobs and incomes of a large number of workers, their families and their communities are jeopardized. The argument for developing and implementing strategies to reduce poverty by increasing productive employment opportunities by making agriculture more resilient but also by promoting a more diversified, less climate-exposed economy in rural areas is compelling (ILO, "Promotion of rural employment for poverty reduction", 2008).

In the realm of strategies to promote sustainability in the agricultural sector at the global level, the Green Economy Report (GER)<sup>57</sup> (UNEP, 2011) describes a variety of farming practices and technologies that have the ability to "green" the sector and are expected to simultaneously maintain and increase farm productivity and profitability while ensuring the provision of food on a sustainable basis. These practices include restoring and enhancing soil fertility through the increased use of naturally and sustainably produced nutrient inputs; reducing soil erosion and

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<sup>56</sup> The cases of Cambodia, Samoa and the United Republic of Tanzania are referred to in UNDP (2010) to describe the initiatives that the UNDP has in these countries, respectively. For a more detailed discussion, see: [http://www.undp.org/gef/documents/publications/UNDP\\_GEF\\_MDG1.pdf](http://www.undp.org/gef/documents/publications/UNDP_GEF_MDG1.pdf).

<sup>57</sup> *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication.*

improving the efficiency of water use by applying minimum tillage and cover crop cultivation techniques; reducing chemical pesticide and herbicide use by implementing integrated biological pest and weed management practices; and reducing food spoilage and loss by expanding the use of post-harvest storage and processing facilities.

According to the GER, a number of interventions at the global and national level would encourage farmers to implement these practices. Support for improved land tenure rights of smallholder farmers, targeting programmes for women smallholder farmers and the promotion of public procurement of sustainably produced food are regarded among these interventions.

The restoration of natural capital that makes farmers and rural communities more resilient in the face of climate change can be linked to direct poverty-reduction measures such as income transfers. A good example of this is the National Rural Employment Guarantee Act (NREGA) scheme in India, which provides 100 days of guaranteed paid employment per year to every poor rural household. The works carried out under NREGA are mostly geared at soil protection, forest and watershed rehabilitation, water storage, irrigation and flood control.

As per decent work analysis, a study conducted by GHK (GHK Consulting, United Kingdom) in 2010 for Bangladesh sheds light on some preliminary findings for the sustainable agriculture sector. On the bases of an input-output table and data from labour force surveys, the study evaluates key indicators of decent work in the sustainable agriculture sector in Bangladesh. The main findings are that, in general, working standards are better for sustainable than for conventional agriculture and the smaller size of organic farms often means there is a closer working relationship between the employer and employees. While figures for wage rates are not reported, the study quotes the results of another report, which found that sustainable agricultural practices can lead to significant increases (38–50 per cent) in household incomes for both men and women.<sup>58</sup> The GHK study showed as well a high incidence of informal and child labour in the sustainable agriculture sector and found that most of the labourers were paid on a daily basis in rural areas and work under an individual farmer.

As a conclusion, GHK states that some social aspects of the jobs provided in sustainable agriculture would need to be further improved before ILO decent work criteria are satisfied. The study reports indications that working conditions and wages are generally higher than in conventional agriculture, but the evidence is far from conclusive.

Agriculture and rural development have suffered from significant under-investment for decades. Reducing poverty and enhancing food security in the face of significant climate change will require a reversal of this trend. The adaptation fund established under the United Nations Framework Convention for Climate Change should become a major contributor for adaptation in LDCs.

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<sup>58</sup> Through the UK Department for International Development (DFID); see DFID (2001).

## Chapter 5: The informal economy and labour market institutions

The problem of informal employment is rooted in the inability of LDCs to create sufficient formal jobs for a fast-growing labour force (ILO, 2009. “Informal economy in Africa”). As these trends are likely to continue if not combated, facilitating transition to formality and decent work should be a policy priority in LDCs’ development policy frameworks.

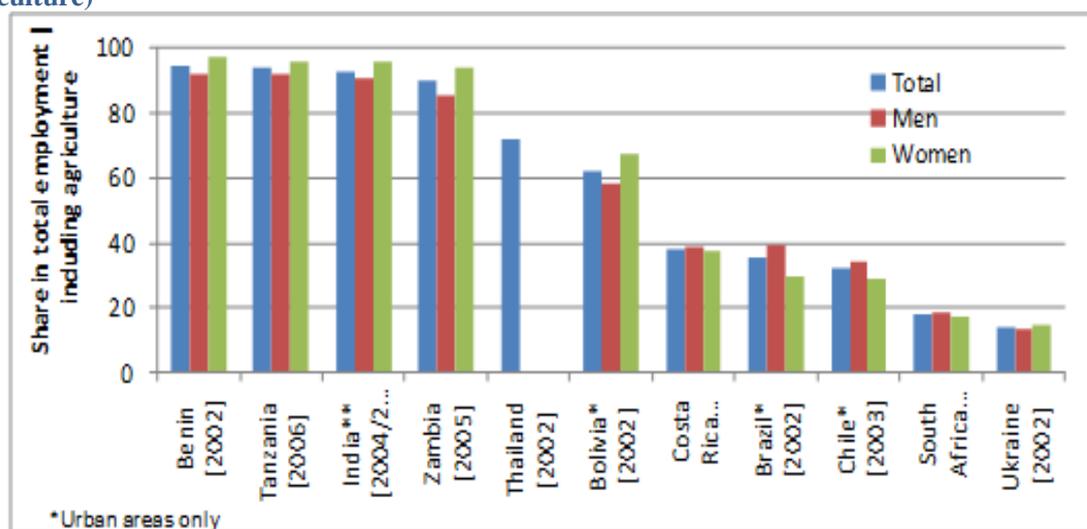
To address these issues, this chapter focuses on the employment challenge of informality in LDCs before examining the role of labour market institutions. The chapter then outlines the key policy responses to tackle the problems facing these countries.

### The challenge of informality for LDCs

As shown in Chapter 1, the share of the working poor in total LDC employment is estimated at 60 per cent in 2009, as compared with a rate of 21 per cent at the global level. In the African LDCs, the share of the working poor in total employment is estimated at 64 per cent, while in the Asian LDCs, the share of the working poor in total employment is 54 per cent (ILO, Trends Econometric Models, 2010).

The main explanation for this is that, in LDCs, people find work mainly in subsistence agriculture and informal economic activities, which are both characterized by low levels of productivity and earnings. High exposure to risk combined with low social protection coverage place most informal economy workers in a very vulnerable situation. In Africa, it is estimated that as many as nine in ten rural and urban workers have informal jobs, and this is especially the case for women and young people, who have no other choice than the informal economy for their survival and livelihood. Figure 5.1 shows employment in the informal economy (including agriculture).

**Figure 5.1: Employment in the informal economy as percentage of total employment (including agriculture)**

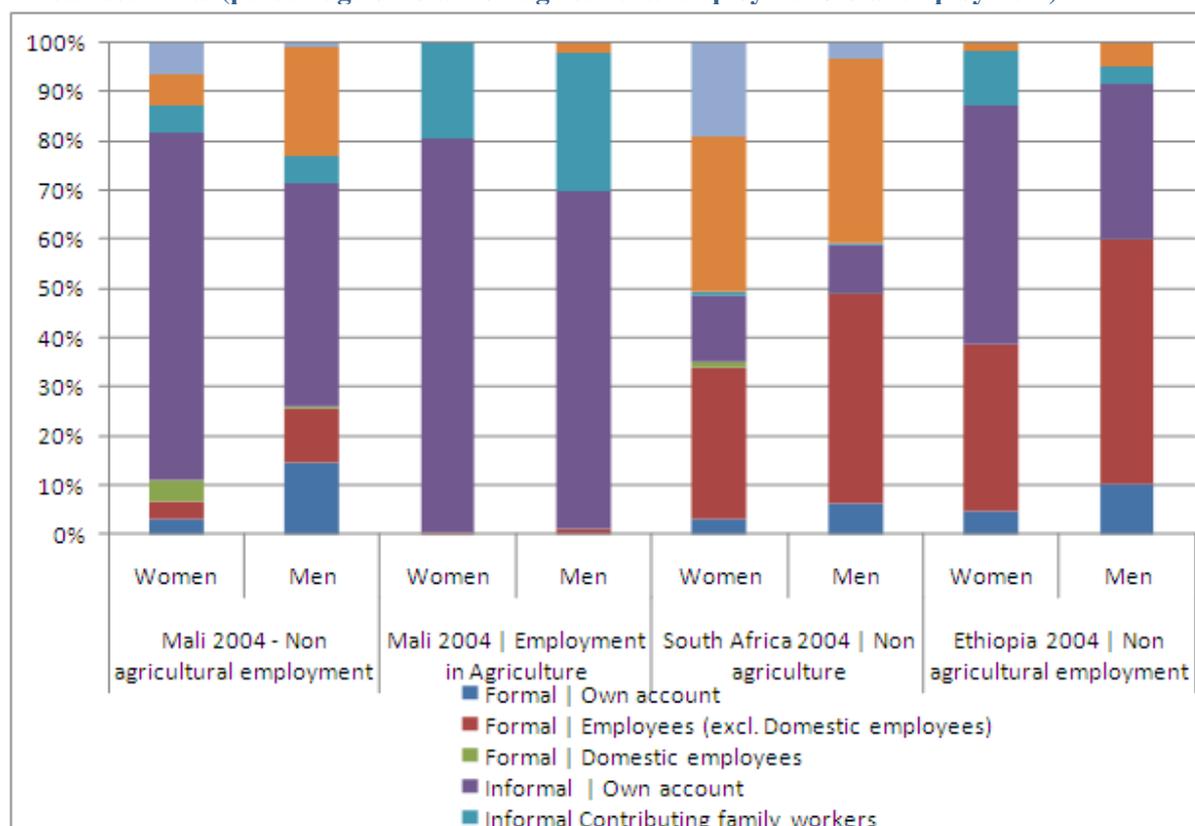


Sources: ILO/STAT, Employment in the informal sector database; India: Kannan, National Commission for Enterprises in the Unorganized Sector; Zambia and the United Republic of Tanzania: ILO/SECSOC.

Informal employment is generally a larger source of employment for women than for men in the developing world. Outside of North Africa, where 43 per cent of women workers are in informal employment, 60 per cent or more of women workers in the developing world are in informal employment (outside agriculture). In sub-Saharan Africa, 84 per cent of female non-agricultural workers are informally employed, compared with 63 per cent of male non-agricultural workers (ILO, 2009 “Informal economy in Africa”).

In all developing regions, self-employment constitutes a greater share of informal employment (outside of agriculture) than wage and salary employment: specifically, self-employment represents 70 per cent of informal employment in sub-Saharan Africa, 62 per cent in North Africa, 60 per cent in Latin America and the Caribbean, and 59 per cent in Asia. Self-employment represents nearly one-third of total non-agricultural employment worldwide and constitutes as much as 53 per cent of non-agricultural employment in sub-Saharan Africa, 44 per cent in Latin America, 32 per cent in Asia and 31 per cent in North Africa (ILO, 2009. “The Informal Economy in Africa”). The share of own-account and contributing family workers in total employment was 81 per cent in LDCs in 2008, compared with 57 per cent in developing countries (ILO, Trends Econometric Models, 2010). However, these aggregate data should not overshadow disparities of employment by status among countries, as illustrated by figure 5.2.

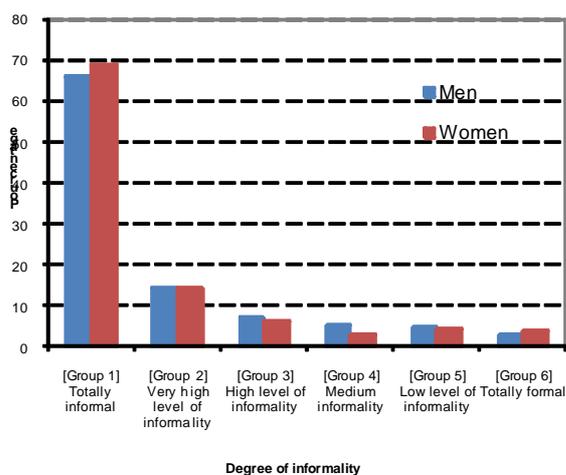
**Figure 5.2: Distribution of employment by status and informal/type of employment in selected African countries (percentage of total non-agricultural employment/total employment)**



Source: ILO/STAT estimates, data on distribution of male and female employment by status in employment and informality.

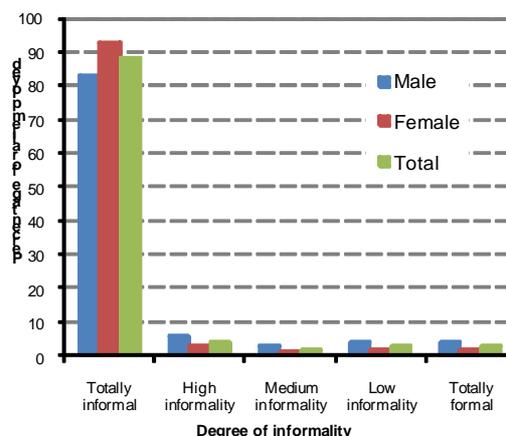
In addition to the status in employment, the diversity of informal employment among countries can also be captured through a set of characteristics related to activity (type and size of enterprise, location of activity), social protection (contribution to social security), employment protection (type and duration of contract, annual leave protection) that can be considered to define a “scale of informality”.<sup>59</sup> Figures 5.3 and 5.4 provide a distribution of total employment by “level of informality” in two countries.<sup>60</sup>

**Figure 5.3: Mozambique — Distribution of employment along the scale of informality, by sex (percentage of persons in employment)**



Source: Mozambique, ILO People Security Survey, 2006.

**Figure 5.4: Zambia — Distribution of employment along the scale of informality, by sex (percentage of persons in employment)**



Source: Zambia, Labour Force Survey 2005.

### ***Rapid labour force growth, urbanization and informality***

The LDCs’ population has been growing faster than in any other large group of countries. Over the period 2005–10, the LDCs’ population growth rate was estimated at 2.4 per cent per year, as compared to a world population growth rate of around 1.3 per cent (UN Population Division’s database, 2008). Thus, estimates show an increase of the LDCs’ population from 750 million to almost 950 million between 2005 and 2015 (UN-OHRLLS, 2010). This trend has three major consequences:

- With a rapidly rising population in LDCs, people living in extreme poverty has continued to increase, and by 2007 it was twice as high as in 1980 (see the Least Developed Countries Report, UNCTAD, 2010, p.35)

<sup>59</sup> See, for detailed information regarding the methodology on levels or scale of informality, the following publications: ILO (2008), “Zambia. Social protection expenditure and performance review and social budget”; ILO (2008), “Tanzania Mainland. Social protection expenditure and performance review and social budget”; ILO (2005 revision), “Economic Security for a Better World”.

<sup>60</sup> The number of “informality levels” (which can differ from one country to another) depends on the number of criteria used to define the scale according to data availability. Whatever the number of categories, the selected set of criteria reflects the three main dimensions indicated above: type of activity, social protection and employment protection.

- With a very youthful population structure and a fast-growing labour force, LDCs are confronted with a massive employment challenge.
- If in LDCs agriculture continues to be the main source of employment, absorbing more than two-thirds of the labour force, the rapid population growth associated with poor employment opportunities in rural areas will push more and more people to seek work outside agriculture, contributing to a rapid urbanization. Between 2000 and 2010, the urban population in the LDCs is estimated to have grown faster than the rural population. The former is estimated to have grown by 61 million (from 107 to 168 million), whereas the latter is estimated to have grown by 56 million (from 294 to 350 million) (Herrman and Haider, 2008, p.6). And the growth of the non-agricultural labour force is expected to exceed the growth of the agricultural labour force in 2010–20. Thus, by 2025, more than 50 per cent of the LDCs' population could be living in urban areas according to estimates (UN-Habitat, 2010). This rapid urbanization is affecting the nature of the employment challenge for LDCs as it is associated with a growing urban informal economy. A comparative labour market survey of selected African capitals – Cotonou (Benin), Ouagadougou (Burkina Faso), Bamako (Mali) and Dakar (Senegal) – shows that about 77 per cent of the labour force in these capitals has been employed in informal private enterprises (Brilleau, Roubaud and Torelli, 2005). In LDCs, the accelerating process of urbanization, with more and more people in the urban informal economy, calls for new informal economy oriented-policy frameworks to improve productivity, earnings and working conditions in urban areas.

### **What is the role of labour market institutions in LDCs?**

The role of institutions, such as employment protection legislation (EPL), minimum wages, unionization (including collective bargaining) and unemployment benefits schemes, is arguably one of the most controversial issues surrounding the labour market, and has been at the centre of policy debates for some decades. The discourse on these institutions has mostly been in the context of OECD countries and has typically focused only on the economic costs (Cazes and Verick, 2010). Though the evidence on the impact of institutions on labour market outcomes is far from clear cut, the general impression conveyed to policy-makers is that these regulations hinder adjustment, create dualistic labour markets and drive informality.

The ILO and other commentators present a more nuanced view that stresses not only the methodological difficulties in identifying the costs of labour market institutions but also the beneficial role they can play in terms of protecting workers' employment conditions, and ultimately, improving both economy efficiency and distribution of incomes (see, for example, Berg and Cazes, 2007; Berg and Kucera, 2008; Cazes and Verick, 2010; and Freeman, 2009). It is indeed important to remember the goal of labour market institutions: these regulations seek to protect a particular dimension of employment because, in the absence of government intervention, the resulting market failure would be detrimental to the welfare of workers and the economy in general. For example, without any form of dismissal protection (provided by EPL), employers would not internalize the social costs of dismissing workers (i.e. the costs of unemployment borne by the government and society at large). As argued by Blanchard (2004), severance pay forces employers in such a case to internalize the cost of firing, while it protects

workers' incomes. Ultimately, it is crucial to remember the goal of labour market institutions rather than focusing alone on their unintended consequences.

Moving from these issues to the context of LDCs requires fully acknowledging the profound differences in labour markets as described above. Thus, the main issue for LDCs is not unemployment and the lack of jobs per se, but the lack of decent work. These characteristics have fundamental implications for understanding both the impact and role of institutions in LDCs. In order to link these issues, the remainder of this section focuses on two key questions: firstly, what types of labour market institutions exist in LDCs, and what is their impact?; and secondly, acknowledging a positive role for these institutions, what options do these countries have in light of the specific characteristics of their labour markets?

### **What is the impact of labour market institutions in LDCs?**

Contrary to general perceptions, a range of labour market institutions actually exist in LDCs, either in terms of formal institutions that were often established during colonial times or indeed informal structures that have been in place for much longer. Focusing on the formal institutions, most LDCs have a range of labour laws and regulations, which, for example, stipulate how workers are protected from unfair dismissal or are paid a minimum wage. According to Freeman (2009), labour market institutions can vary considerably in developing countries, while collective bargaining is weaker than in advanced countries.

However, acknowledging the existence of labour market institutions is not sufficient. In particular, given the low shares of formal employment, regulations and labour laws such as minimum wages and EPL are only applicable to a minority of workers. Secondly, due to weak enforcement stemming from poor governance and weak institutional capacity (including inadequate labour inspection), workers in the formal sector do not benefit from the provisions of legislation. Thus, even if institutions are seen as strict (in a *de jure* sense), the *de facto* impact on the labour market is likely to be muted.

This point can be illustrated in the case of employment protection legislation. In terms of identifying the impact of EPL in developing countries (mostly non-LDCs), there is a growing literature that draws on evidence mostly from Latin America and India.<sup>61</sup> For example, Kugler (2004) finds that deregulation of EPL in Colombia in the 1990s was associated with growth of employment, a decline in job tenure in the formal sector relative to the informal sector, and increased job separations and hires in the formal sector. There are very few studies investigating the impact of institutions in LDCs.

Despite the lack of empirical work in LDCs, it is nonetheless revealing to look at what firms actually report as major constraints to doing business. As captured in figure 5.5, using data provided by the World Bank's Enterprise Survey database,<sup>62</sup> labour market regulations are perceived as a major constraint in only 8 and 10.7 per cent of firms in sub-Saharan Africa (SSA) and South Asia (SA), respectively, which are regions with a high proportion of LDCs. In fact,

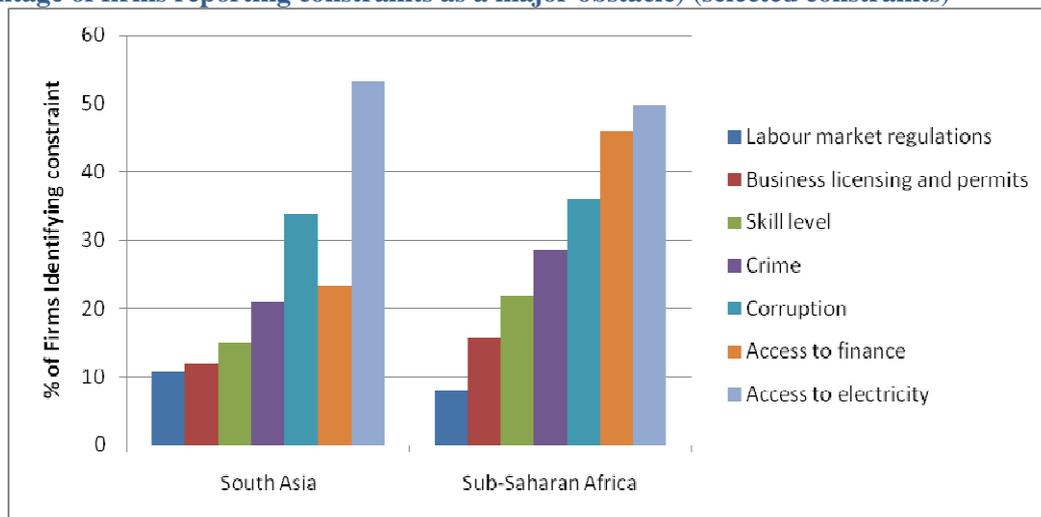
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<sup>61</sup> For a further discussion and varying views on the empirical evidence, see Boeri, Helppie and Macis (2008), Freeman (2009), and Djankov and Ramalho (2009).

<sup>62</sup> See [www.enterprisesurveys.org](http://www.enterprisesurveys.org).

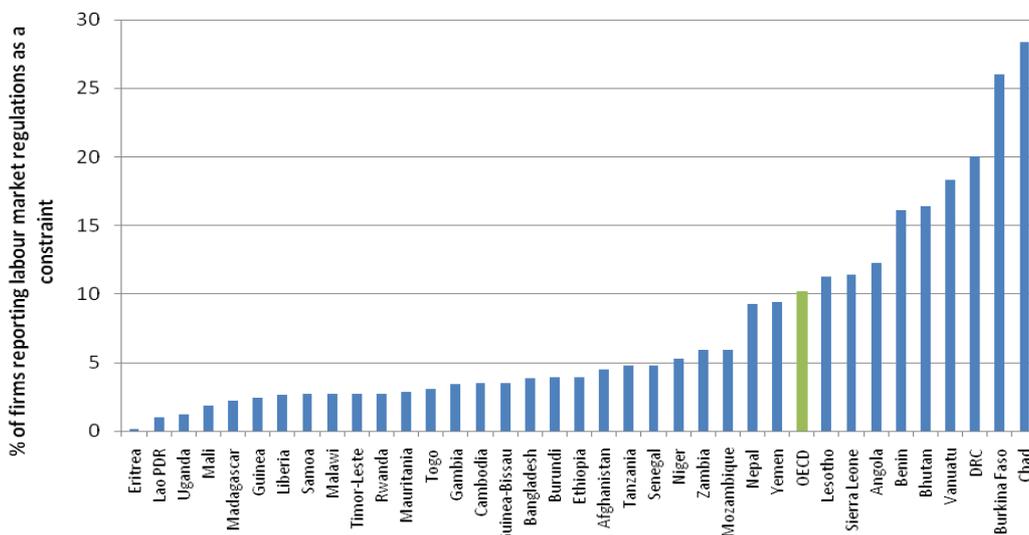
the most reported constraints are access to electricity (49.7 per cent in SSA and 53.4 per cent in SA), access to finance (46 per cent in SSA and 23.3 per cent in SA), and corruption (36 per cent in SSA and 33.8 per cent in SA). Reflecting the problem of skills shortages and mismatches in developing countries, the skill level of the workforce is reported as a greater constraint than the legislation that regulates the labour market (21.7 per cent in SSA and 15 per cent in SA).

**Figure 5.5: Perceptions of constraints among enterprises in South Asia and sub-Saharan Africa (percentage of firms reporting constraints as a major obstacle) (selected constraints)**



Source: World Bank’s Enterprise Survey, <http://www.enterprisesurveys.org/>; accessed 9 March 2011.

**Figure 5.6: Percentage of firms in LDCs reporting labour market regulations as a major constraint (latest year)**



Source: World Bank’s Enterprise Survey, <http://www.enterprisesurveys.org/>; accessed 9 March 2011.

Using the same database, country-specific information for LDCs shows that firms in the vast majority of these countries do not report regulations as a major constraint. Firstly, as illustrated

in figure 5.6, the percentage of enterprises reporting labour market regulations as a constraint is lower than the OECD average in 27 out of 36 LDCs. The figure ranges from just 1 per cent in Eritrea to 28 per cent in Chad (OECD average equals 10 per cent). Moreover, in 21 of these 36 countries, labour market regulations are rated as the least pervasive constraint in comparison to 11 other dimensions to doing business (taxation rate, taxation administration, licensing, corruption, crime, courts, access to finance, access to electricity, transport, trade and skills). Taking a specific example, Nepal receives a score of 3.9 using the OECD's Employment Protection Index, which exceeds the highest ranked OECD country (Turkey) and suggests that it should be very difficult for Nepalese firms to adjust employment (Cazes and Verick, 2010). However, looking at the perceptions of employers as reported in figure 5.6, only 9.3 per cent of them actually complain that labour regulations are a major obstacle to doing business. What these figures show, therefore, is that legislative protection is not a major concern for employers in LDCs. At the same time, these regulations are not providing protection to a large number of workers due to the dominance of informal employment and enforcement issues.

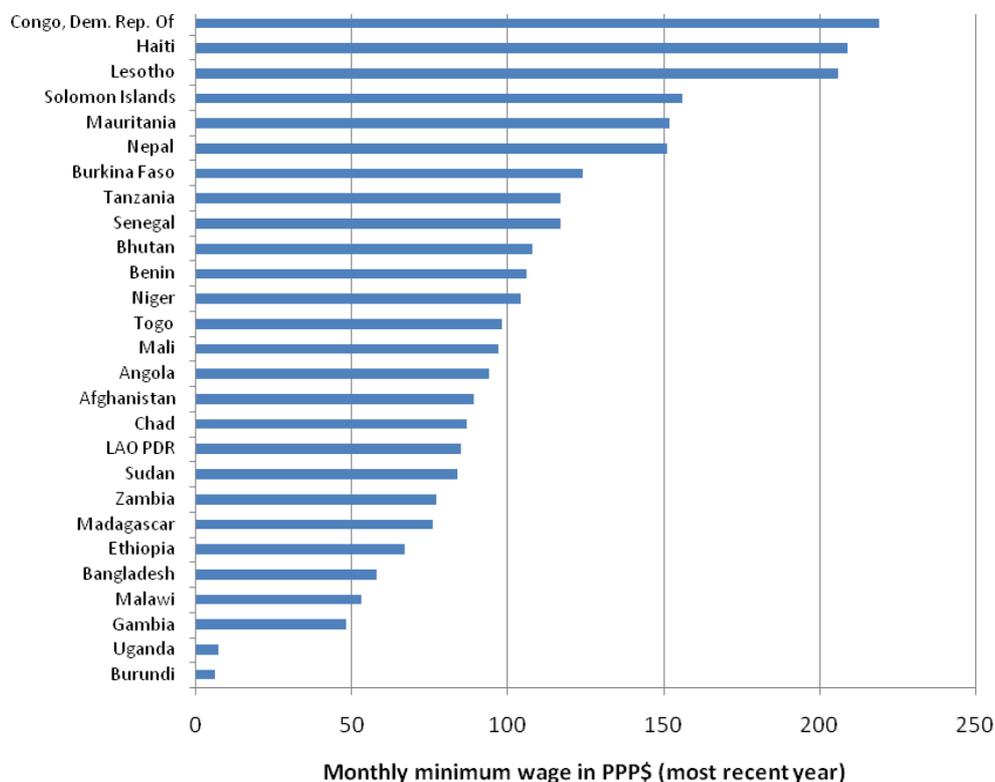
Turning to another institution, as reported in the *Global Wage Report of 2010/11* (statistical appendix table SA2) and reproduced in figure 5.7, a minimum wage is in force in 29 LDCs but its level varies considerably from just US\$6 per month (adjusted for purchasing power parity (PPP)) in Burundi to US\$219 in the Democratic Republic of the Congo.<sup>63</sup> There is also considerable variation when considering the minimum wage as a percentage of GDP per capita (PPP\$ average for 2005–09). In this case, the figure ranges from 1 per cent in Uganda to 78 per cent in the Democratic Republic of the Congo. In contrast to EPL, there is surprisingly stronger evidence that minimum wages are binding in developing countries (although this is largely for non-LDCs) and subsequently produce a spike in the distribution of wages (Freeman, 2009). Interestingly, there are empirical findings that show minimum wages can also raise wages in the informal sector as well (see references cited in Freeman (2009)). Though there is very little evidence in the case of LDCs, these findings suggest that a minimum wage can play a positive role in decreasing inequality in incomes for workers in general and not just those privileged enough to have a job in the formal sector.

As found in the case of minimum wages in developing countries, labour market institutions can indeed meet the intended goal of protecting workers. However, as seen in the context of EPL, there is less evidence that such regulations are doing their job. This leads to the question: how can LDCs utilize labour market institutions more effectively to promote decent work without creating perverse effects and unnecessary judicial and administrative hurdles for employers? This issue is tackled in more detail in the next section.

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<sup>63</sup> In two cases, Comoros and Mozambique, a minimum wage exists but a recent figure is not available.

**Figure 5.7: Minimum wages in LDCs, monthly minimum wage in PPP\$ (most recent year)**



Source: ILO (2010), *Global Wage Report 2010/11*.

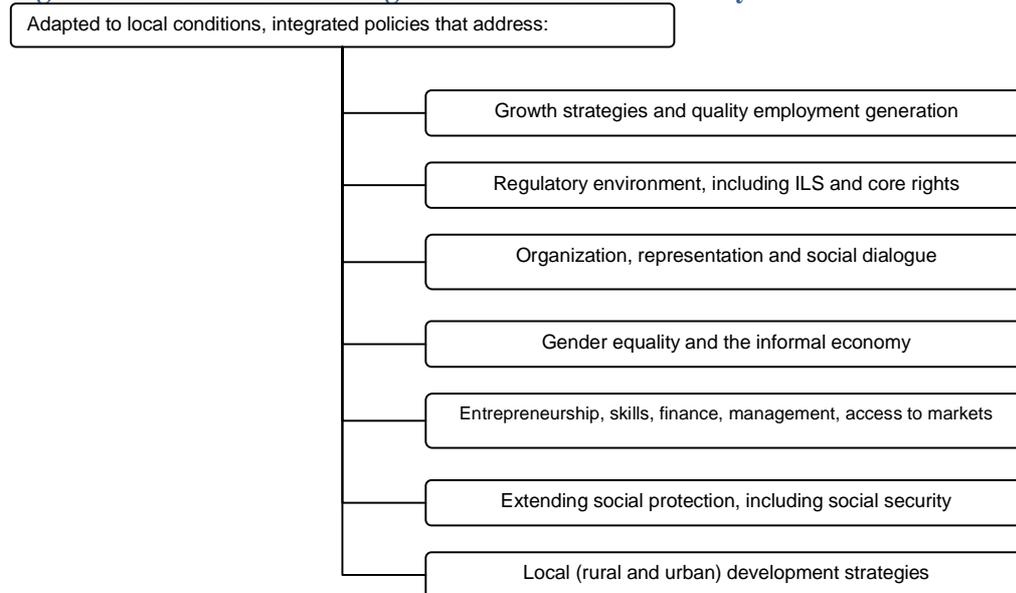
### **Promoting transition to formality and decent work**

A pro-poor and inclusive growth in LDCs requires consideration of how informal employment and working poverty are integrated into a broader development strategy (Heintz (2008), p.2). This issue is central to realizing decent work, as a global goal and for all workers, to achieving the MDGs, and to promoting a fair globalization. It is against this background that the informal economy debate and possible strategies towards formalization are gaining new momentum.

The first step toward designing effective interventions to improve conditions in informal forms of employment is to recognize the heterogeneity of informal activities. For example, consider the case in which informal workers are able to capture the majority of the value added they produce. These activities could include the self-employed producing directly for the domestic market or community-based enterprises in which the value added is not appropriated. Under such conditions, interventions that increase labour productivity in the informal employment will raise living standards, since workers will be able to capture the gains of the productivity improvements. Targeted policies to improve productivity could include access to credit and capital, educational programmes for skill enhancement, and infrastructure development (e.g. electrification). However, for wage and salary workers in the informal economy, a focus on productivity improvements as a strategy to raise living standards could be far less successful than extending social protection or enforcing core labour rights or minimum wages (Heintz and Polin, (2008), p.61)

The ILO has learned from many policy studies that no single institutional arrangement works across diverse policy areas or even diverse subtypes within a broad policy area. Different types of intervention work better in different circumstances and places. Taking into account the heterogeneity of the informal economy and the multidimensional drivers of informality, the ILO has developed an integrated framework to facilitate transition to formality and decent work (figure 5.8).

**Figure 5.8: Decent work strategies for the informal economy**



***Core labour standards, labour regulation and enforcement issues in LDCs***

There is a new broad consensus that the rights and standards covered by the ILO Declaration on Fundamental Principles and Rights at Work is a minimum floor that should apply to all workers, regardless of whether they are in the formal or informal economy.<sup>64</sup> Extending protection to workers and units in the informal economy is a challenge that LDCs have started to address in a significant manner. But the dramatic size of the informal economy in LDCs calls for innovative approaches to reach its workers. However, there are at least two situations where the regulatory environment needs to be adjusted to the characteristics of the informal economy. The first is when activities or groups are not covered by a national regulatory framework, for example in the case of the self-employed, domestic workers or subcontractors. As most labour laws cover only workers that have a clear employer-employee relationship, institutions established to carry out labour protection activities, e.g. workplace advice, labour statistics, dispute resolution, consultative bodies and vocational training programmes, have mainly reached out to the formal sector. However, in recent years, there have been interesting developments to extend the scope of labour laws to the informal economy, such as through administrative acts in Thailand and the Philippines, the latter where laws have been enacted but compliance or enforcement is weak. This issue is related to capacity and commitment constraints but also, importantly, to technical

<sup>64</sup> Adopted by the International Labour Conference at its 86th Session, Geneva, 18 June 1998 (Annex revised 15 June 2010).

and logistical limitations. But some of the practical difficulties encountered in applying labour inspection methods to the informal economy can be solved as in the case of home-based workers in Thailand (ILO, 2007).

Several countries have initiated programmes and projects aimed at the informal economy that support the effective application of these core rights, including programmes/projects on freedom of association and the right to collective bargaining, elimination of all forms of forced or compulsory labour, effective abolition of child labour, and elimination of discrimination in respect of employment and occupation. For Cambodia, a report on “Extending labour law to all workers” analyses conditions found among specific groups of unprotected workers and examines how laws and institutions can extend their reach to all workers whenever they work (ILO, 2006). This effort led to a “Handbook on decent work in the informal economy in Cambodia” (ILO, 2006) that aimed at strengthening national stakeholders’ capacities to contribute to the formulation of policies and action plans to facilitate transition to formality as a priority to realize Cambodia’s development strategy.

### ***Promoting sustainable micro-, small- and medium-sized enterprises (MSMEs) in LDCs***

In line with the ILO’s Job Creation in Small and Medium-Sized Enterprises Recommendation, 1998 (No. 189), enterprise policies should have a dual focus. They should ensure that conditions at work result in equity (in particular between women and men), poverty eradication and social welfare and they should also aim at improving productivity and having access to competitive resources. Taking into account the slow job creation in the formal economy and the inclusion of most new entrants in the labour market into informal economy units in LDCs, a policy priority is upgrading the informal economy by gradually phasing in regulations and offering long-term technical and financial assistance to help businesses operating in the informal economy to be more productive and more responsive to labour legislation for compliance. Improving MSMEs’ access to productive resources and the market, and reducing the magnitude of factors that limit their growth, are key components to facilitate transition to formality. From this perspective, the ILO has carried out business climate assessments in Cambodia, the Lao People’s Democratic Republic and Sri Lanka, including feasibility studies on setting up one-stop-shops for onsite registration. It has further developed a manual to assess the business environment and developed a tool that can, in a participatory manner, identify high-potential sub-sectors in a given locality and then, through analysis of their value chains, determine constraints and opportunities to market expansion. This tool, which has recently been introduced in Viet Nam and Sri Lanka, aims to strengthen value chains through a variety of business development services, including association-building, clustering, marketing activities, such as trade or medium-sized enterprise fairs, skills training and providing mentoring on improved production methods, strengthening negotiating skills and understanding contracts. Governments and large companies can also open market opportunities for micro and small enterprises by procuring goods and services from them. The STEP IN programme in Zambia supported the evolution of traditional meeting places for informal sector business people into Centres for Informal Sector and Employment Promotions (CISEP) where end users (those working in enterprises in the informal economy) could meet service providers to decide on the kind, quality and price of the services.

### *Skills development*

Improving the skills of informal economy workers is a key priority to enhancing their chances to access gainful employment, as well as improving their productivity and income. Yet, formal training systems have proved inadequate in reaching out to and meeting the needs of informal economy workers. Community-based programmes and projects are partially filling this gap. The ILO has developed a specific methodology to address this issue. The methodology, known as Training for Rural Economic Empowerment (TREE), emphasizes the identification of potential wage and self-employment opportunities, and their training and non-training requirements, and consists of organizing and providing training and post-training support services to poor and/or disadvantaged individuals in communities. Such opportunities are assessed in the context of communal development plans and make use of both locally available formal and non-formal training offerings. For example, TREE has been implemented in Pakistan, Bangladesh and in the southern Philippines. In these countries, it was found that 70–90 per cent of persons trained were able to become gainfully self-employed. The Community-Based Training (CBT) project in Bangladesh is one successful example of where new opportunities and technical options have been opened to poor rural women in market-oriented non-conventional trades.



## Chapter 6: The role of public investment and public employment programmes

### Public investment in infrastructure to achieve economic and social development in LDCs

#### *1. The challenge – reduce major deficit in infrastructure and balance those investments*

A study<sup>65</sup> conducted two years ago in 24 African countries, most of them LDCs, shows that the poor state of infrastructure in sub-Saharan Africa – its electricity, water, roads, and information and communications technology (ICT) – cuts national economic growth by 2 percentage points every year and reduces business productivity.

**Power:** Inadequate access to energy is the single largest impediment to economic growth. Chronic power shortages affect 30 African countries; the entire installed generation capacity of 48 sub-Saharan African countries is 68 gigawatts, no more than Spain's, and 25 per cent of that capacity is unavailable because of aging plants and poor maintenance.

**Water:** High hydro-climatic variability, inadequate storage, rising demand and lack of trans-boundary cooperation undermine the African water sector. Less than 60 per cent of Africa's population has access to clean drinking water. Over the last 40 years, only 4 million hectares of new irrigation have been developed, compared to 25 and 32 million hectares for China and India, respectively.

**Transport:** Ineffective linkages between different transport modes (air, road and rail), declining air connectivity, poorly equipped ports, ageing rail networks and inadequate access to all-season roads are key problems facing Africa's transport system. Only 40 per cent of rural Africans live within two kilometres of an all-season road, compared to some 65 per cent in other developing regions. Improving road accessibility in rural areas is critical to raising agricultural productivity across Africa.

**ICT:** The number of African mobile phone users increased from 10 million in 2000 to more than 180 million in 2007. During 1992-2005, private sector investment in ICT infrastructure topped US\$20 billion, but high prices of services remain a problem. In 2007, the average price of prepaid mobile services cost US\$12 a month in Africa, six times the US\$2 cost in Bangladesh, India and Pakistan.

Although financing for infrastructure has rapidly increased over the past three years to address those gaps necessary to make progress toward achieving the MDGs, more needs to be done, in particular in African LDCs where the backlog is huge (see table 6.1).

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<sup>65</sup> Africa Infrastructure Country Diagnostic (AICD), a project designed to expand the world's knowledge of physical infrastructure in Africa. AICD is being implemented by the World Bank on behalf of a steering committee that represents the African Union, the New Partnership for Africa's Development (NEPAD), Africa's Regional Economic Communities, the African Development Bank and major infrastructure donors.

**Table 6.1: Africa's infrastructure deficit**

Normalized units	Sub-Saharan African LDCs	Other LDCs
Paved road density (note 1)	31	134
Total road density (note 1)	137	211
Mainline density (note 2)	10	78
Mobile density (note 2)	55	76
Internet density (note 2)	2	3
Generation capacity (note 3)	37	326
Electricity coverage (note 4)	16	41
Improved water (note 4)	60	72
Improved sanitation (note 4)	34	51

Source: Yepes et al. (2008), in Foster, V.; Briceño-Garmendia (2010).

Notes: 1: road density is in kilometres per kilometre squared; 2: telephone density is in lines per thousand population; 3: generation capacity is in megawatts per million population; 4: electricity, water and sanitation coverage are in percentage of population.

In addition to the backlog in infrastructure, the appropriateness of the infrastructure investments in meeting the diverse needs of their population poses two major challenges. First, the balance between costly infrastructure meeting the needs of the few but facilitating high growth potential sectors and more low-cost infrastructure serving a larger part of the population poses a policy dilemma. Second, and lesser known, the way in which infrastructure is built and maintained can entail large differences in its multiplier effects for the economy.

Further, infrastructure can play a significant role in increasing the job content of growth, which is much needed for LDCs.

## ***2. Strategic use of public investment in infrastructure – An integrated approach***

Increased investment in infrastructure allows promotion of direct, indirect and induced employment, using a local resource-based approach<sup>66</sup> in both rural and urban areas.

Cross-sectoral and cross-ministerial integration can enhance impact considerably.

Further, a local resource-based approach can produce three to five times more direct employment than conventional methods for small- and medium-scale infrastructure. It can also have a multiplier effect of about two times the direct jobs created and increase the purchase of local goods and services by a factor of three.

Local resource-based approaches also require development of local capacity in governmental institutions, especially in the areas of finance and management.

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<sup>66</sup> Local resource-based approach means that an optimal mix of locally available inputs in terms of labour, materials, equipment and tools is searched for including the increased use of local actors for design and implementation such as local SMEs (consultancy firms and small-scale contractors) and community-based organizations (CBOs).

To ensure that the employment effect of infrastructure investments are optimized, demand-side policies must be operationalized through design and contracting, and supply-side interventions made through training for entrepreneurs in appropriate technology options, and managerial and operational requirements. Such an integrated approach has to be implemented at three levels.

**Macro level:** The governments and social partners need to be assisted in the development of Employment Impact Assessments (EIAs) of public investment programmes (PIPs). This requires a serious coordination effort between key ministries to ensure coherence, including the ministries of finance, planning, labour, sectoral and local government. EIA tools play an important role in facilitating dialogue and decision-making within governments and between governments, representatives of employers and workers and civil society. Legal barriers must be removed in procurement systems and procedures to allow for local contractors' and local resource use in delivering infrastructure programmes. These programmes often represent an important contribution to productive and social development, and the creation of sustainable Green Jobs in support of development and adaptation processes.

**Meso level:** There is a need for institutional development and capacity-building of the government at both the centralized and decentralized levels. Private sector and civil society are key features to guarantee the successful implementation of employment-intensive public investment programmes. Networking local training institutions, technical colleges, universities, as well as development agencies and regional institutions into communities of practice facilitates access to appropriate knowledge and technology transfers. Organization-building with workers and entrepreneurs is a crucial element of vibrant public-private partnerships enhancing local ownership that generates diversified opportunities for job creation.

**Project level:** Local partners (governments, communities) need to be assisted to implement projects with an optimum number of productive quality jobs. Local-level planning and contracting methodologies (e.g. integrated rural accessibility planning (IRAP),<sup>67</sup> private sector and community contracting) facilitates organization and participation, and helps to ensure targeting of infrastructure investments towards better impact and improved governance, transparency and accountability. Technology options will have to be introduced and analysed to increase employment intensity and productivity. Rigorous monitoring and evaluation systems are equally vital to determine injections into the local economy, employment created and identifying beneficiaries.

### ***3. Policy recommendations for public investment programmes in LDCs***

LDCs can enhance their investment in infrastructure and ensure that these investments are designed and implemented to boost employment, aggregate demand and to create a floor for economic growth. The following policy recommendations are relevant:

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<sup>67</sup> IRAP is a tool developed by the ILO to facilitate rural accessibility interventions as an integral part of rural development focusing on mobility and location of services to meet multiple access needs of rural communities. It particularly enables gender-balanced participatory and transparent problem analysis and solution processes.

1. More ambitious new infrastructure projects should be launched, not only to avoid the deterioration of the countries' public capital stock (maintenance and rehabilitation projects) but to build it up for higher growth and employment. Investments in protection and restoration of the productive natural resource base are very timely to counter threats posed by climate change, to take advantage of the new market opportunities (financing and products) and for higher growth.
2. When feasible, decentralized public investment should be favoured. First, decentralized decision-making processes usually commit the local population more to the works and their maintenance. Second, the works undertaken are usually on a smaller scale and involve less expensive tenders, which means there is less need for heavy machinery and greater job creation for the amount invested. Third, decentralized tenders are more likely to be executed by local firms using resources available in the area, including workers, materials and services that boost the local economy.
3. LDCs, individually and as a group, stand a better chance in leveraging domestic funding for their programmes and negotiating more favourable outcomes of bi- and multilateral agreements if commonly accepted measurements are available. Countries should improve monitoring of public investment programmes, through the possible development of globally accepted standard indicators, in order to assess their real impact on the economy – in terms of job creation, skills acquired and enterprises developed and supported, including the gender perspective of these results – and impact on the environment.
4. While targets for direct job creation of public investments have become more common in many countries, it is also of crucial importance to assess the overall labour outcome of these investments. LDCs should apply new available employment impact assessment (EIA) methodologies that measure direct, indirect and induced employment and effects of technology choice, in the short and long term.
5. As many infrastructure projects in LDCs are co-financed by international financing institutions (IFIs), these institutions should make all efforts to allow through their regulations for a productive and efficient use of local resources and an increased labour content in development cooperation. Readjusting their design, procurement and contracting modalities could have a major effect on employment, enterprise development and on domestic demand.

## **Reducing inequality – The role of public employment programmes**

### ***1. Introducing innovations in public employment programmes***

The role of the State in providing direct employment through policies promoting productive growth and investments is being more widely recognized, and can contribute to ensuring an employment floor for those that are able to work, as a complement to a social protection floor for those who are not able to work.

This has also underscored the need to reinforce knowledge development and dissemination of good practices in the design and implementation of public employment programmes. This is an area of significant innovation at present, in relation to the types of work, the conditions of work, and in ensuring the right to work.

Public Employment Programmes (PEPs),<sup>68</sup> such as Public Works Programmes (PWPs) and Employment Guarantee Schemes (EGSs), have been shown to be very useful tools to protect the most vulnerable against shocks whether in response to a crisis, or as part of longer-term, counter-cyclical employment policy. At the same time, infrastructure, assets and services are developed that promote social and economic development using local resources.<sup>69</sup>

While emergency PWPs have been used widely for a long time and are generally well documented, there has been significant innovation in the area of public employment in recent years focusing on sustainability, which also changes the scope of options available for public policy in this area.

First, such programmes are not only crisis responses; in many countries in the world, unemployment is an ongoing challenge, with markets unable to create employment on the scale required. PEPs are able to complement employment creation by the private sector, and offer an additional policy instrument with which to tackle the problem of un- and underemployment, as part of a wider employment and social protection policy.

Second, the range of work undertaken has changed. PWPs and EGSs have been strongly associated with infrastructure and construction “works”, but this has evolved, with examples of work in the social sector, environmental services, and multi-sectoral, community-driven programmes.

And most significantly, the introduction of the National Rural Employment Guarantee Scheme (NREGS) in India has moved towards a notion of the right to work, by making 100 days of work per household a legal entitlement in rural areas. This also raises new options for alignment and convergence between public employment and wider social protection policy, and also between sustainable productive employment and natural resources conservation.

These developments significantly expand the range and scope of policy choices and opportunities available in relation to public employment, whether as part of a crisis response, as part of long-term employment policy, or as a complementary element within wider social protection policy.

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<sup>68</sup> PEP refers to any direct employment creation by government through an employment programme rather than through the expansion of the civil service.

<sup>69</sup> For India, the Government expenditure for 2009–10 on NREGA was US\$10.7 billion (a fourfold increase in four years), over 112 million households had registered with NREGA and over 52 million households had been provided with employment (Lieuw-Kie-Song and Philip (2010); case study, The Mahatma Gandhi National Rural Employment Guarantee Act (NREGA) India). For Ethiopia, the budget represents approximately 1.2 per cent of GDP with the scope to benefit 1.2 million people annually providing 150 days of work each combined with transfers to those that are not able to work (Lieuw-Kie-Song and Philip (2010); case study, Productive Safety Net Programme (PSNP)). For South Africa, the expenditure in 2009 was approximately 1.0 per cent of GDP with a target to benefit 4.5 million people over five years (Lieuw-Kie-Song and Philip (2010); case study, Expanded Public Works Programme (EPWP)).

## 2. PWP and EGS in LDCs

There is a renewed interest in PEPs in many LDCs with a view to combining the objectives of generating short-term employment, providing income support and creating and preserving infrastructure and other assets, including a productive natural resource base. The impetus comes from large-scale programmes such as the NREGS in India, the Productive Safety Net Project (PSNP) in Ethiopia and the Expanded Public Works Programme (EPWP) in South Africa. Many new PWPs and EGSs are now being established in LDCs with financial support provided by development partners, creating a whole range of additional challenges. One of those is the Ghana Social Opportunities Project, including labour-intensive public works and conditional cash transfers (see box 6.1).

### Box 6.1. Ghana

The Ghana Social Opportunities Project has been designed to support targeted social protection spending, to increase access to employment and cash-earning opportunities for the rural poor during the agricultural off-season, to increase access to conditional cash transfers, and to improve economic infrastructure in target districts, mainly located in the relatively poor northern parts of the country. The US\$91 million project will be implemented over a five-year period, and is part of the Government's National Social Protection Strategy (NSPS). The Government's NSPS vision is to create an all-inclusive and socially empowered society through the provision of sustainable mechanisms for the protection of persons living in situations of extreme poverty and related vulnerability and exclusion.

The Labour-Intensive Public Works (LIPW) is the largest component (US\$56 million), with an objective to provide targeted rural poor households with access to employment and income-earning opportunities, through rehabilitation and maintenance of public or community infrastructure. This pertains particularly to seasonal labour demand shortfalls during the agricultural off-season or due to external shocks such as floods or droughts. The aim is to maximize local employment while rehabilitating productive infrastructure assets, which have potential to: (i) generate local secondary employment effects; and (ii) protect households and communities against external shocks. This component will establish a LIPW-based scalable instrument that provides quick-response mechanisms during a crisis.

The second largest component is the ongoing Livelihood Empowerment Against Poverty Programme (LEAP). The current programme is a pilot conditional cash transfer that is financed and implemented by the Department of Social Welfare with technical assistance and other support from donors. There is recognition of the need to build additional capacity within the programme's administration at the national, regional, district and community levels to allow for the rapid expansion of the programme and improve targeting. The US\$20 million programme component will also finance incentive payments to the unified treasury account to ensure that LEAP meets its target of 164,370 households by 2012 and thereby contributes to improved human capital outcomes for these households.

Finally, capacity-building (US\$4.1 million) at the national and local levels will be an important project component. The NSPS will be implemented in selected project districts, with a view to enabling a gradual scaling-up and targeting at the national level. This component will therefore implicitly strengthen the Government's decentralization programme. Several distinct sets of capacity-building activities will be undertaken, including activities to support the institutional, regulatory and policy frameworks and the implementation of LIPW and LEAP.

Within a framework of fiscal sustainability, sufficient resources should be used for such PEPs aimed at reducing inequality. With proper attention given to wage-setting, proper working conditions and appropriate capacity-building, people stand a better chance to graduate from these

programmes. These issues are further developed in the Policy Paper and International Course on Innovations in Public Employment Programmes developed by the ILO.<sup>70</sup>

### ***3. Policy recommendations for PEPs in LDC***

Lessons learnt from other programmes:

1. **Learning from doing.** Large-scale PEPs, such as NREGS and EPWP, have benefited from experience gained over many years from previous and similar schemes in their respective countries.<sup>71</sup> New LDC countries that have embarked on PEPs in response to the financial crisis should not be discouraged or give up if the results are not immediately as expected.
2. **Effective targeting.** PEPs face targeting challenges to reach the intended beneficiaries. Different targeting mechanisms exist such as geographical, categorical and self-targeting.
3. **Capacity development.** Ensuring satisfactory and balanced performance on the multiple objectives, including employment generation and asset-creation, is challenging, especially since very often such programmes are implemented in contexts where institutions and technical capacities are weak. Setting up and operating long-term PEPs with or without an employment guarantee is complex, requiring a combination of adequate resources, appropriate management structures, effective planning and administrative processes and adequate technical inputs.
4. **Support to institutions.** The institutional setup and capacity is of crucial importance for efficient counter-cyclical measures such as PEPs that will shrink and expand as economic conditions change. A shift from a short-term perspective in the case of emergency public works programmes towards a medium- to long-term perspective has to be considered as one moves towards public employment guarantee schemes.
5. **Social dialogue.** Programmes must be designed to avoid threatening established employment norms. If the PEP is to work under special provisions, these should be designed and negotiated through a dialogue process to ensure that they create decent employment and abide by basic labour legislation such as acceptable wage and health and safety requirements. Indeed, recent large-scale programmes have shown that the dialogue process around employment norms for these programmes can positively contribute to raising awareness and establishment of new decent work practices.

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<sup>70</sup> ILO (2010), “Towards the Right to Work – Innovations in Public Employment Programmes”.

<sup>71</sup> NREGS has benefited from the Maharashtra Employment Guarantee Scheme implemented since the 1970s.



## **Chapter 7: Promoting catching-up growth and productive transformation in LDCs: A new approach**

### **The challenge**

LDCs face the challenge of triggering and sustaining a dynamic process of development and productive transformation. Development is defined as a process of economic and social transformation, characterized by the adoption of more sophisticated technologies and diversification into non-traditional and higher value-added goods and services, the development of domestic capabilities and the transformation of employment patterns. Increasing capabilities, productive transformation and productive employment, are interrelated processes that, in a virtuous circle, create sustainable growth and high economic performance (Rodrik, 2007; Cimoli, Dosi and Stiglitz, 2009; Chang, 2009; Salazar-Xirinachs and Nübler, 2010).

Capabilities are defined by two dimensions.<sup>72</sup> First, they are expressed in the opportunities and option space a country has developed to trigger and sustain the process of productive transformation. Second, capabilities are defined by the “knowing how to do”, the competences in taking advantage of the potentials and opportunities, and abilities for high performance. Capabilities are developed at the level of individuals (employability and competences). However, they are also accumulated at the level of enterprises, government, the economy and society.

The challenge for LDCs is therefore, firstly, to create an option space for triggering economic diversification and, secondly, to fuel the transformation process by enlarging the option space and by facilitating the accumulation of competences during the industrialization process. Diversification and employment are instrumental in providing learning opportunities in new technologies and activities. Hence, “what you produce matters” because the nature of diversification and productive transformation shapes the nature of the capabilities accumulated in the labour force, in firms and in societies at large. And the nature of capabilities accumulated in the economy, in turn, defines the option space for further diversification into new products.

LDCs differ in their economic, social, political, natural and cultural conditions. Each country has developed distinct productive, educational and knowledge structures, formal institutions such as the regulatory framework, and informal institutions such as social norms, attitudes, values and traditions. These structures and institutions imply different option spaces and competences to imitate and adopt technologies, and to shift into new products and sectors. Each country therefore needs to analyse the particular constraints and opportunities it faces and design appropriate policies. Education, training, trade, investment and technology policies are discussed as key policy areas to promote productive transformation, capabilities, productive employment and sustained catching-up growth in LDCs.

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<sup>72</sup> The concept of capabilities in the context of productive transformation has been developed in a research project whose findings will be published in Nübler (forthcoming).

## Education policies as industrial development policies

The educational structure of the labour force determines the options of the economy for diversification, which highlights the role of education policies in triggering and fuelling a process of productive transformation.<sup>73</sup>

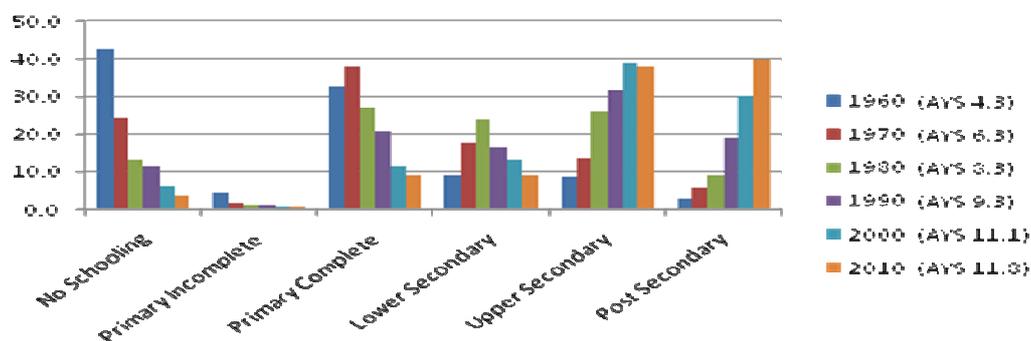
### 1. Lessons from successful catching-up countries

Empirical evidence from successful catching-up countries shows that educational transformation preceded productive transformation. Countries such as China, Costa Rica, Ireland, the Republic of Korea, Singapore and Taiwan had created a wide option space for diversification into low and medium technologies by investing heavily into primary and lower secondary education, but at the same time also investing in higher and post-secondary education as part of their industrialization strategy.

Figures 7.1 to 7.3 show the transformation of the educational structure in three catching-up countries: the Republic of Korea, Costa Rica and China, respectively. During the 1960s, these countries had achieved low educational levels, but they rapidly increased the educational attainment, as measured by the aggregate figure of average years of schooling (AYS). They all had attained AYS of above 4.5 when they launched a dynamic process of catching up. Furthermore, these countries rapidly transformed the educational structure, which is measured by the share of educational categories: no schooling, incomplete primary, complete primary, lower secondary, higher secondary, tertiary education. These countries rapidly decreased the share of the population without schooling and with incomplete primary education, while they increased primary and lower secondary education at the early stage of industrialization.

In addition, these countries adopted a forward-looking approach and they created an option space for diversification into higher value-added products and technologies by also investing in upper secondary and post-secondary education. The Republic of Korea achieved the most rapid educational transformation in a short period of time. China follows the pattern of the Republic of Korea by also applying a two-pronged approach: reducing rapidly the share of non-schooling and increasing the upper secondary share. In contrast, Costa Rica moved more slowly.

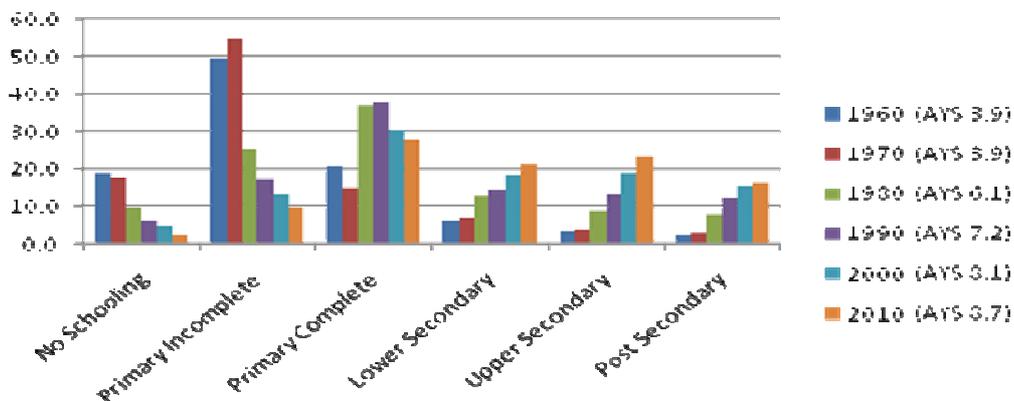
**Figure 7.1: Development of educational structures in the Republic of Korea**



Source: Barro and Lee (2011); Author's calculations.

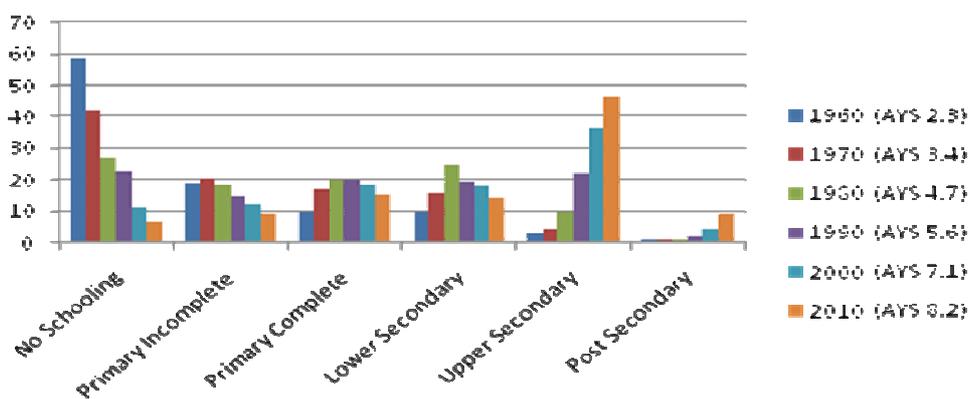
<sup>73</sup> This chapter draws on Nübler (forthcoming), Chapter 5.

**Figure 7.2: Development of educational structures in Costa Rica**



Source: Barro and Lee (2011); Author's calculations.

**Figure 7.3: Development of educational structures in China**



Source: Barro and Lee (2011); Author's calculations.

## 2. Educational structures and option space in LDCs

LDCs differ significantly in terms of their educational structures, and they therefore have different options for diversification, industrialization and productive transformation.

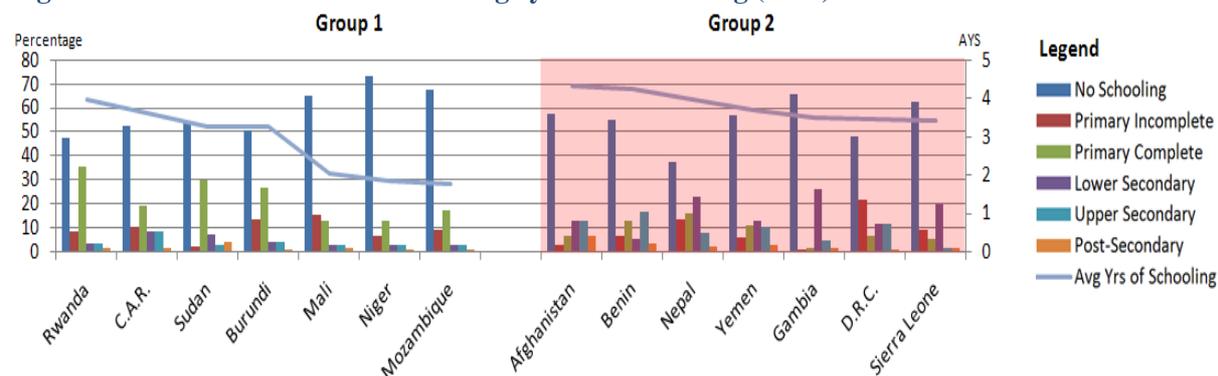
### a. A narrow knowledge base and limited options

First, LDCs with low levels of education (AYS below 4.5) represent about half of those LDCs for which data is available on both education and manufacturing. Countries with AYS below 4.5 have the highest share of the population without schooling and they seem to lack the knowledge base in the labour force that is required for triggering an industrialization process and shifting the economy out of traditional activities.

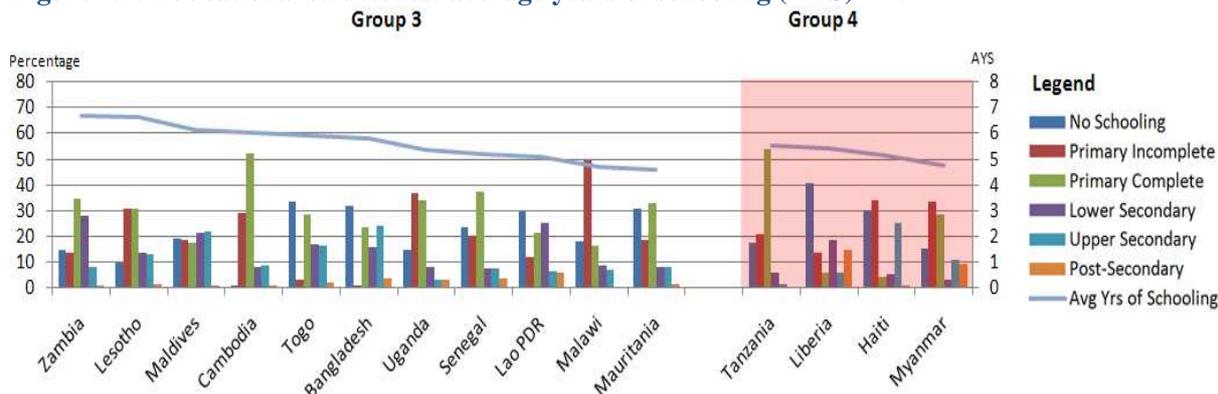
These countries are further distinguished according to the educational structure they have developed. Firstly, group 1 is characterized by relatively high shares of primary education

(incomplete and complete), which indicates priorities for investment in basic education, and very small shares of secondary and tertiary education. These countries have achieved the smallest shares in manufacturing, with an average share in GDP of just 7.8 per cent. Figure 7.4 depicts the educational structure and AYS of these countries.

**Figure 7.4: Education structures: average years of schooling (AYS) < 4.5**



**Figure 7.5: Educational structures: average years of schooling (AYS) > 4.5**



Source: Barro and Lee (2011); Author's calculations

Secondly, group 2 represents those countries that have also achieved AYS below 4.5 and high shares of non-schooling. However, in contrast to group 1, these countries exhibit a much more polarized educational structure: high shares of non-schoolers combined with high levels of secondary education (above 20 per cent), but a rather low share of primary education (the share of completed primary education is below 15 per cent in all countries). Such educational structures reflect unequal societies, they are testament to polarized educational investment priorities and they fail to develop a broad knowledge base in the labour force. These countries lack the strong primary education base that is needed to enter low or medium technology manufacturing on a broad scale and to trigger a dynamic process of productive transformation.

The average share of manufacturing in GDP of these countries is 7.6 per cent. As this share is about as high as in group 1, this indicates that the relatively higher investments in secondary education do not generate higher option values and returns in terms of productive transformation

for the group 2 countries. The relatively high share of secondary education, however, provides the option to enter more advanced technologies and activities.

**Table 7.1: Characteristics of the different country groups**

	AYS	Avg. manuf. value added	Group characteristics				
			AYS	Non-schooled	Primary	Secondary	Polarized “missing middle”
Group 1	2.8	7.8	<4.5	High	Low	Low <20%	No
Group 2	3.8	7.6	<4.5	High	Very	High	Yes
Group 3	5.7	12.0	>4.5	Low	High	Varies	No
Group 4	5.2	9.2	>4.5	Low	High	Varies	Yes

***b. Broader knowledge base and various options***

Countries that achieved AYS above 4.5 have significantly higher shares of manufacturing as a percentage of GDP, and they also exhibit higher levels of diversification. Furthermore, countries with a balanced educational structure showed higher performance than those with an unbalanced structure. Figure 7.5 shows that group 3 countries, which have developed a relative balanced educational structure reflecting a long-term investment in primary, lower and higher secondary education, have also achieved higher shares of manufacturing with an average manufacturing share of around 12 per cent. Educational policies that strengthen the middle educational levels provide the space for diversification into more advanced technologies and products on a larger scale, and they also provide the opportunities to expand into higher levels of education and to upgrade the labour force.

The educational structure developed in group 4 countries can be described as “unbalanced”. While the United Republic of Tanzania invested heavily in primary education, it achieved extremely low shares of secondary and tertiary education, below 8 per cent. Hence, while the United Republic of Tanzania has AYS similar to those countries in group 3, it has achieved a significantly lower share of manufacturing of only 9.5 in the Tanzanian mainland, and 4.8 in Zanzibar as compared to the average share of 13 per cent in group 3. In contrast, Haiti, Liberia and Myanmar are characterized by the “missing middle”, that is, high shares of higher and post-secondary education of above 20 per cent, and low shares of primary and lower secondary education. The “missing middle” limits the option space of the labour force for industrialization. They have achieved average manufacturing shares of around 9 per cent, which is low compared to the heavy investment in higher and tertiary education.

To conclude, the countries with the highest option space to diversify the production structure and to continue transforming the educational structure are those that have achieved AYS above 4.5 (and drastically reduced the share of non-schooling), and that have at the same time managed to develop a balanced educational structure as the educational level of the labour force increases. Table 7.2 provides an overview of these points.

**Table 7.2: Educational structure and option space for productive and educational transformation**

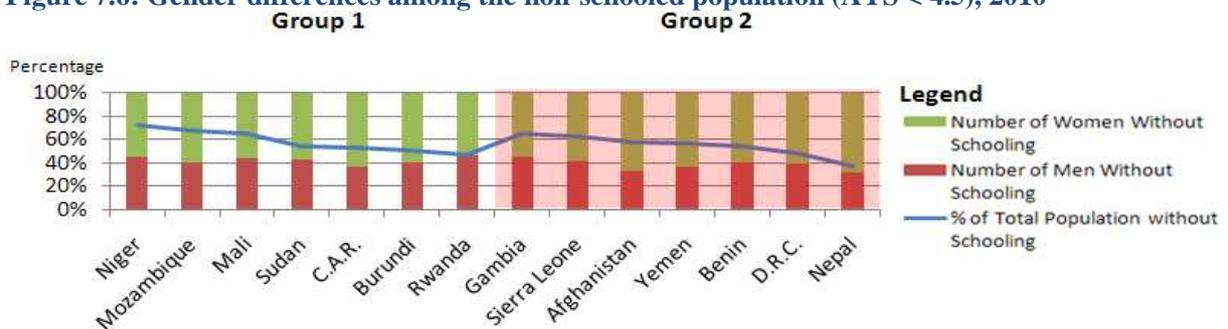
Educational structure	Average years of schooling (AYS)		
		Low (<4.5)	High (>4.5)
	Balanced	Limited option space to enter low technology; to expand higher-level education	Potential for low- or medium-technology manufacturing, and for higher-level education
Unbalanced	Potential to enter standardized low-technology manufacturing, and to expand higher-level education	Potential for more sophisticated (e.g. high-technology) industries, limited options to expand higher-level education	

*c. The gender perspective and option space*

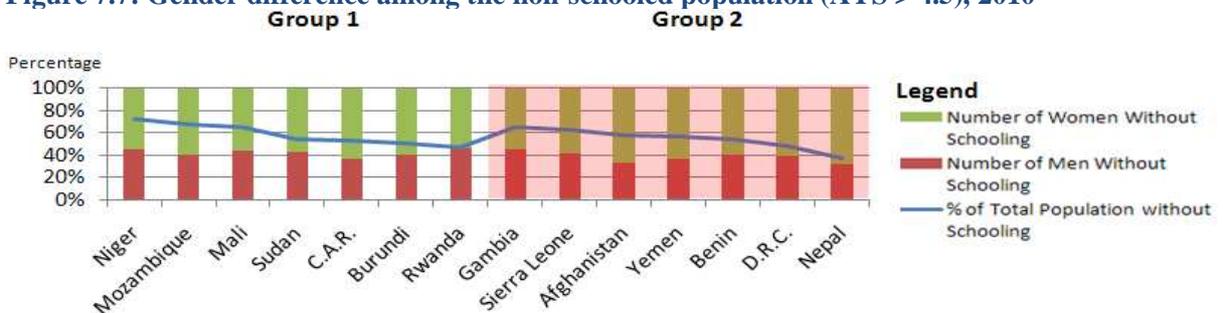
Data further show that women are overrepresented amongst the non-schooled part of a country’s population, and that countries with higher shares of non-schooling demonstrate less gender discrimination and more equal access to basic education. Figure 7.6 demonstrates that those countries with AYS below 4.5 show a very similar pattern: in all countries, women account for 60 per cent of non-schoolers, while men account for 40 per cent. This suggests that access to the limited schooling opportunities is distributed relatively equally along the gender lines.

By contrast, as figure 7.7 shows, countries with AYS above 4.5 and a sizeable part of the population obtaining at least some schooling, higher gender disparities as well as higher variations between countries can be observed. Hence, higher investment in education seems to provide more room for gender discrimination. Neglecting the talents and potential of women limits the option space for diversification, rapid catching up and productive transformation.

**Figure 7.6: Gender differences among the non-schooled population (AYS < 4.5), 2010**



**Figure 7.7: Gender difference among the non-schooled population (AYS > 4.5), 2010**



Source: Barro and Lee (2011); Author’s calculations

## **Productive transformation and learning in industries**

Industrial policies need to explicitly support industrial development and learning in industries in order to trigger, fuel and accelerate the dynamics of productive transformation and changing employment patterns.

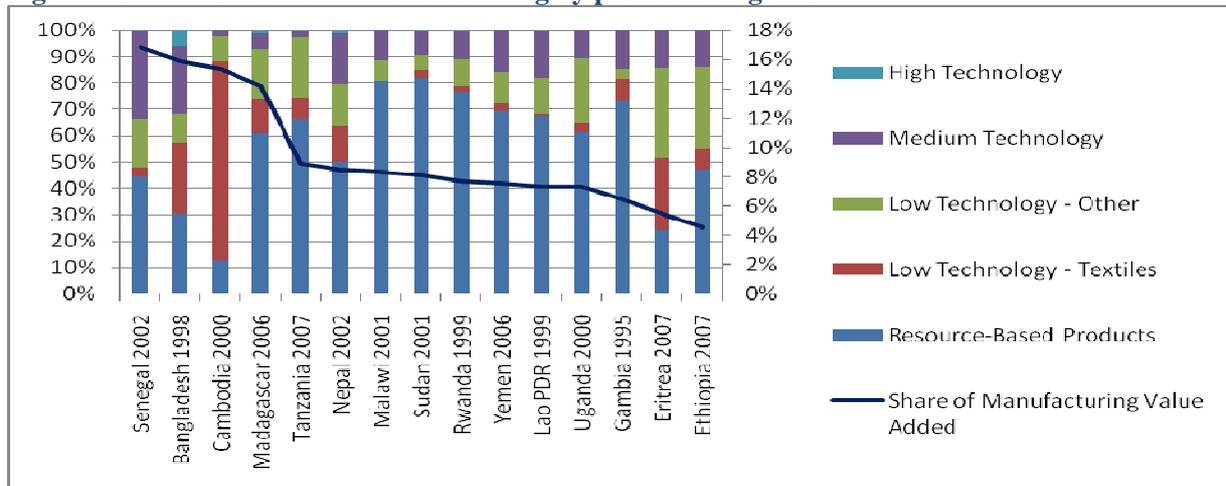
### ***1. Limited learning opportunities***

LDCs face very low transformation dynamics, limited diversification and a concentration in mainly resource-based and low-technology goods. This provides extremely low learning opportunities in many countries and contributes to a lock-in effect into traditional and simple techno-economic paradigms. Low technologies tend to have slow growing markets, limited learning potential, a smaller scope for technological upgrading and less space for diversification. Therefore, diversification into new manufacturing sectors is key because these tend to be the most dynamic sectors, as they provide substantial scope for diversification and can provide highly learning-intensive activities. Technology-intensive products also offer better prospects for trade and growth because they tend to be highly income elastic (Lall, 2000).

In addition, “what you produce matters” for the nature of knowledge, technologies and of capabilities that can be acquired in industries. Figure 7.8 provides a snapshot of learning opportunities in selected countries. As expected, low shares in manufacturing are associated with high shares of production in traditional goods and a relatively high concentration of manufacturing on resource-based products, such as food products, beverages, tobacco, wood and wood products. These shares are particularly high in countries with a total share of manufacturing value added below 9 per cent (depicted by the black line). More than half of the countries analysed have 60 to 80 per cent of their production in resource-based products, which are associated with low technologies, low productivity and very low opportunities for the labour force and domestic enterprises to acquire more advanced capabilities.

In contrast, countries with the highest shares in manufacturing also have the lowest shares in resource-based products, at least 40 per cent of their manufacturing is in low and medium technology, with few high-technology products. Furthermore, these countries tend to have the highest degree of product diversification. This indicates that more experience in manufacturing comes with higher diversification and with higher shares in low and medium technology products.

**Figure 7.8: Diversification in manufacturing by product categories**



Source: United Nations Industrial Development Organization (2010), Indstat4 Database; Author's calculations.

Countries with low shares in the textile, garment and leather industries seem to face particular challenges. In many catching-up countries, these industries have traditionally constituted one of the first low-technology sectors entered, and by enlarging markets through export promotion, and diversifying into a wide range of different products, they could create substantial domestic capabilities. These capabilities were transferred to the production of other low-technology products, and they help to also shift into medium technologies (Lall, 2000). The limited data available confirm this argument and show that those five countries (Bangladesh, Cambodia, Madagascar, Nepal and Eritrea) that have achieved shares of the textile and garment industry of above 10 per cent could also obtain higher shares in other low-technology products.

## 2. *Industrial policies for productive transformation, employment and learning*

Government policies play an important role in facilitating, supporting and shaping the process of structural transformation. In order to accelerate development and increased transformation dynamics, this process needs to result in higher productivity growth, more productive employment and the accumulation of domestic capabilities. These three processes are interrelated and they need to co-evolve for sustainable development dynamics. Both policies and institutions are required, and the accumulation of institutional and of government capabilities needs to be an integral part of the learning and transformation process.

Market forces are unable to trigger and sustain such dynamics. The growth experience of some LDCs during the past decade has shown that growth based on exports of resources and raw materials has neither created employment nor domestic capabilities. While growth based on exporters of food, agricultural goods and cut flowers has created some employment, the building of domestic capabilities has been limited.

The “new” approach to industrial policies is not so much about picking winners, but about policies to facilitate the process of productive transformation and accumulation of domestic capabilities. The challenge is to design policies and institutions that provide incentives to search for profitable activities, to invest in new technological and commercial knowledge, and to shift into higher productivity and learning-intensive sectors that can create opportunities to

accumulate capabilities. Industrial policies can learn from the experience of peers and successful catching-up countries. In addition, industrial policies should take an exploratory and experimental approach, combining interventions with feedback mechanisms in order to rapidly identify mistakes and consequently to keep the costs of such mistakes low, and to improve governmental capabilities.

*a. Combining incentives and compulsion with support (“carrots, sticks and nurture”)*

Policy-makers in LDCs need to develop a “learning strategy” that views industries as an important learning place. Successful interventions to promote the desired learning processes require the design of policies and institutions which provide “carrots, sticks and nurture”. This implies creating incentives to establish new products and industries, invest in the discovery of new economic activities, in skills, and in new technologies. Institutions need to develop the capacity of the public education system, enterprises and the vocational training system to provide learning opportunities for individuals and enterprises. But “sticks” and disciplinary measures are also important as they create a compulsion to learn while limiting rent-seeking. These include the application and monitoring of strict standards, automatic sunset clauses and time-limited incentives. Competition policy is a means to discourage rent-seeking behaviour (Salazar-Xirinachs and Nübler, 2010). Finally, policies need to also provide “nurture” and direct support in coping with the increasing complexity of learning as more advanced technologies are adopted. This relates to support measures for enterprises to close technological gaps or supporting enterprises in meeting standards and to qualify for ISO certification (Nübler, forthcoming 2011).

*b. Criteria for selecting sectors for industrial policy targeting*

Experience from different catching-up countries and economic frameworks suggest different principles for the choice of sectors, and they all may be applied. We may distinguish between those following comparative advantages and the market, and those taking the perspective of capability accumulation and learning for development (Nübler, forthcoming 2011).

**Follow the market and comparative advantages:** Identify tradable goods and services that the country already produces, and already has comparative advantages or in which the country has the potential to develop comparative advantages. Governments support these sectors by identifying bottlenecks and constraints, and providing support in overcoming these constraints. This approach has been proposed recently by the World Bank (Lin and Monga, 2010).

**Deliberate “jump” into high value-added sectors:** Identify non-traditional, high-productivity sectors that have the potential to create steep learning curves (Reinert, 2008). These sectors produce in new techno-economic paradigms and jumping into new paradigms represents a major challenge because the capabilities and competences required in the new activities are distant from those acquired in past activities. Some LDCs have undertaken the effort to jump into such activities; for example, Rwanda, which is establishing an IT hub, or the Maldives providing high class tourism service. “Green” technologies may provide the potential to leap into higher technology markets.

**Enter dense product clusters:** Support the development of product clusters that require similar capabilities and therefore facilitate rapid diversification. Textile, garment and electronics clusters have high density and potential for diversification.

**Meeting social and environmental development goals:** Promote the development of activities and services that accommodate the developmental goals of LDCs. For example, LDCs are hit hardest by climate change and these countries need to develop local research and development (R&D) capabilities and productive capacities to address urgent development goals. Important areas are new irrigation, crop diversification, soil conservation and organic fertilizers.

### **3. *Policy instruments***

Industrial policies to promote productive transformation and domestic capabilities are complex, they touch a wide set of policy areas and instruments, and each LDC needs to design policies according to its own history, interests and aspiration, taking into account limited fiscal space, government and institutional capabilities.

#### **a. *Trade protection to nurture infant industries and learn***

Trade protection has been applied by all successful catching-up countries in order to nurture infant industries, provide learning opportunities and create incentives to invest. Successful western and Asian catching-up countries have extensively used import substitution and protection of manufacturing sectors to bring about productive transformation and at the same time accumulate domestic capabilities for high industrial performance (Cimoli, Dosi and Stiglitz, 2009). Both J.S. Mill, who argues within the classical economic paradigm of free trade, and F. List, a development economist, suggest trade protection as the means to develop experience and skills for developing new competitive industries. Trade protection is justified on economic grounds as it provides learning opportunities, helps build capabilities and helps establish new comparative advantages. The capability development argument suggests that LDCs should use the policy space provided under the multilateral trading system to develop new industries, diversify and learn. Countries need to catch up in capabilities, and trade protection has been traditionally applied in countries with limited government and institutional capabilities and fiscal space.

Bilateral free trade agreements (EPAs) drastically reduce this policy space by often requiring zero-level tariffs. Countries therefore may become locked into low technologies, and into existing comparative advantages in low value-added production. Evidence from developing countries on the impact of trade liberalization on growth, trade and inequality shows that those countries that reduced tariffs rapidly and to very low levels between the 1980s and 1990s lost most in terms of world trade share and growth. By contrast, countries that reduced tariffs to moderate levels, thus maintaining protection, achieved the highest levels of growth in GDP per capita and export. Gradual liberalization to moderate levels of protection has been shown to provide the space for industrialization, time to accumulate domestic capabilities in technological dynamic sectors, and to become competitive in international markets. These countries, for example, could benefit most from the increasing global demand for manufacturing goods and IT-related products such as semiconductors (Nübler, 2003).

#### **b. *South-South cooperation for appropriate technologies***

Learning how to adopt and use imported technologies is a complex and incremental process. It challenges technology policies to support the accumulation of technological capabilities of workers, enterprises and society at large. Cooperation between developing countries provides a

major channel for LDCs to transfer appropriate technologies and cheaper capital goods. Technologies imported from other developing countries tend to be more adjusted to the specific needs and the economic, educational and technological conditions of LDCs. Furthermore, LDCs can benefit from South-South cooperation by importing cheaper capital goods. For example, China is increasingly exporting cheap capital goods to low-income countries.

*c. Investment policies and learning networks*

Investment policies to attract domestic and FDI are important to support diversification into higher value-added products. FDI flows between developing countries have risen substantially during the past decade, and flows between East and South-East Asia are particularly pronounced. Asian FDI is also flowing to low-income African countries, supporting infrastructure projects in sub-Saharan Africa; for example, in Angola and the Democratic Republic of the Congo (UNCTAD, 2009).

*d. Expanding domestic and foreign markets for increasing returns and learning space*

Markets in many LDCs are small, and therefore they are unable to benefit from the increasing returns and learning opportunities that manufacturing creates. Export promotion of manufactured goods facilitates access to international markets, and competitive pressures enforce adoption of advanced technologies and learning. South-South cooperation and regional integration provide the opportunities for LDCs to export low-technology goods to other developing countries because goods are less differentiated, and they require less sophisticated technologies and capabilities (OECD, 2010). In particular, China and India may become major importers of labour-intensive manufacturing goods as income and demand of the emerging middle class increases, and wages are rising giving a competitive advantage to LDCs (Salazar-Xirinachs, 2011).

While it is often argued that catching up in Asian countries was export-driven, evidence also shows that government procurement was used to increase local demand for locally produced goods. For example, the Korean computer industry was heavily supported by the decision of the Korean Government to computerize the public administration and government sector as well as the tax administration system. Although the industry did not succeed in becoming competitive, firms and the labour force accumulated critical capabilities, which they could use for the development of high-technology goods, for example, the flat panel display in the 1990s.

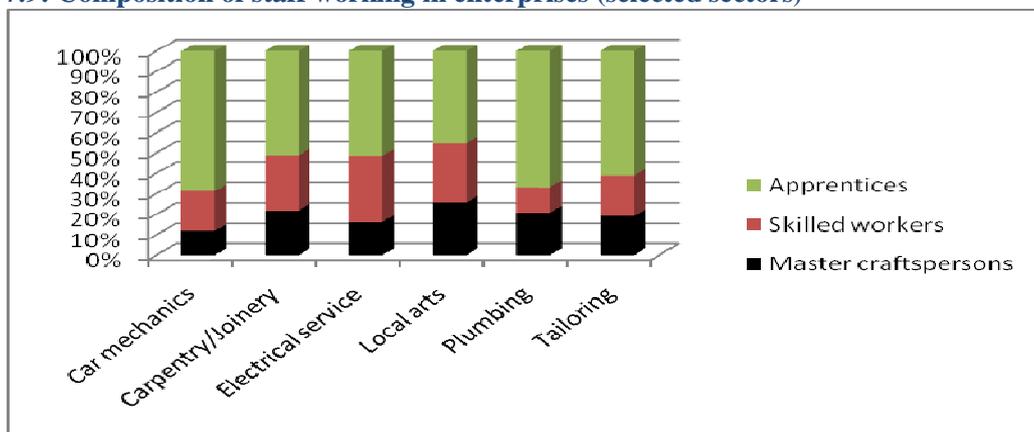
**Training policies: Upgrading informal apprenticeship systems**

Productive transformation in the craft and trade sector (mainly informal economy) requires competent workers, artisans and craftspeople with the capabilities to adopt more advanced technologies, and diversify into new activities and trades, as well as the social capabilities to train young people and the labour force in the required competences and occupations. Many LDCs have developed a tradition of informal apprenticeship training that represents the main road to skills development. In Benin, in 2005, about 200,000 young apprentices were trained, which represents ten times the number of students in vocational and technical education. In Senegal, some 300,000 young people are trained as apprentices as compared to some 10,000 graduates from the formal vocational training centres (Walther and Filipiak, 2007). Formal

training systems tend to be costly, providing training to only a small share of the labour force and, therefore, embody limited social capabilities to support the productive transformation process.

A study in the United Republic of Tanzania shows that informal apprenticeship is regulated by “smart” institutions. Substantial apprenticeship training is provided in micro- and small enterprises, apprenticeship is widespread and well established in the various craft sectors (Nübler, Hofmann and Greiner, 2009). Data also show that informal apprenticeship has the potential for upgrading and being transformed into an effective training system in LDCs. Figure 7.9 shows that workshops train a significant number of apprentices. Most apprentices have at least achieved primary education, and about 10 per cent have finished lower secondary education. Master craftspeople tend to be the positive selection among former apprentices, as they have achieved higher educational levels, more than 20 per cent with secondary education. About one-third of the master craftspeople have also been trained in the formal training system.

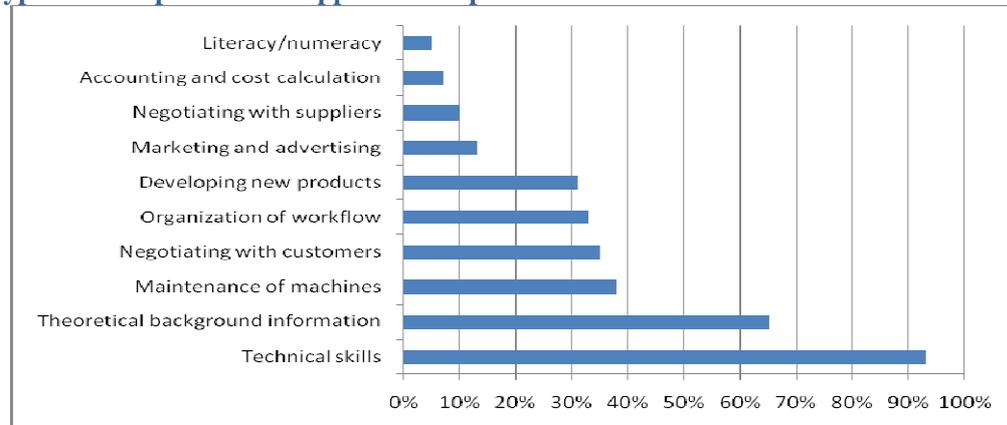
**Figure 7.9: Composition of staff working in enterprises (selected sectors)**



Source: Nübler, Hofmann and Greiner (2009)

Furthermore, apprenticeship in the United Republic of Tanzania provides a broad range of different skills. Figure 7.10 reveals that they are trained in technical skills, but they also acquire management and entrepreneurial competences. Data also show that employability of graduate apprentices is high. About 80 per cent of graduates had set up their own businesses in the trained crafts, 7 per cent became skilled workers, and the remaining 13 per cent went either to formal training or found a job in other informal or formal enterprises.

**Figure 7.10: Type of skills provided in apprenticeships**



Source: Nübler, Hofmann and Greiner (2009)

The challenge for governments is to develop the potential of informal apprenticeships, and to strengthen the institutional capabilities. This relates to the capacity to provide training in more advanced technologies and theoretical knowledge, to improve the quality of training and effectiveness, to establish links with the formal training system, and to formally recognize and certify training while strengthening incentives to participate in apprenticeship training.

### **Policy recommendations**

Increase the level of education and reduce the share of the population without schooling in order to trigger a productive transformation process.

Transform the educational structure in the labour force in a balanced manner in order to enlarge the option space for sustained diversification into low- and medium-technology manufacturing.

Provide equal access for women to basic education and develop their talents in order to fully use the potential of the labour force for rapid catching up.

Promote diversification into new technologies and higher value-added manufacturing for increased productivity, higher opportunities to accumulate capabilities in new techno-economic paradigms, productive employment and transformation dynamics.

Design learning strategies by combining incentives and compulsion with support measures, and targeting learning-intensive sectors in addition to sectors with comparative advantages.

Use the available policy space provided by multilateral trade rules to provide temporary trade protection in order to nurture infant industries, create learning opportunities and build domestic capabilities and new comparative advantages. Liberalize trade gradually and in a sequenced manner as capabilities are accumulated.

Take advantage of South-South cooperation by transferring appropriate technologies, importing cheaper capital goods and exporting low-technology goods.

Attract domestic and foreign investment in non-traditional tradables and support learning networks between domestic and foreign firms, such as value chains, joint ventures, clusters, industrial parks or business incubators.

Promote exports and use government procurement to enlarge markets for locally produced goods in order to benefit from increasing returns, more productive employment and learning space.

Develop the potential of the informal apprenticeship system and strengthen the institutional capabilities to provide training for advanced technologies, and improved quality and effectiveness of training in order to promote productive transformation in the crafts sector and informal economy.

## Chapter 8: Social protection: Investing in people

### Introduction

It is now widely recognized that effective social protection policies are a key investment in human development and a contribution to growth, productive employment and decent work. As such, social protection policies have a strong bearing on countries' efforts to achieve "equitable growth and sustainable development based on nationally owned and people-centred poverty reduction strategies" and to "realize the vast and untapped human and economic potential in LDCs", as stipulated in the Brussels Declaration, 2001.<sup>74</sup> Social protection policies are also among the key components of policies to accelerate progress towards achieving the Millennium Development Goals, as the UN General Assembly recently emphasized during the MDG Summit, that "Social Protection systems that address and reduce inequality and social exclusion are essential for protecting the gains towards the achievement of the Millennium Development Goals".<sup>75</sup>

Many LDCs have acknowledged the need to embark on more inclusive development paths that are based on a broad-based expansion of productive capacities and the well-being of the population.<sup>76</sup> Such efforts to create a more enabling environment for sustainable and inclusive economic growth require the investment in the human capital of the population from a very early age through access to health, education and other social services, as well as at least a minimum level of income security that empowers people to engage in productive employment and income-generating investments. The joint UN initiative for a Social Protection Floor, led by the ILO and WHO, emphasizes the importance of such investments in productive capacities that would help to achieve substantial progress in poverty reduction, and the need to step up international efforts to make the human right to social security a reality for people in LDCs. Such investments will help LDCs to develop the full productive potential of the population, contribute to the formalization of employment, support economic and social change, foster sustainable and equitable growth, reduce vulnerability and boost economic and social development.

### Status quo and challenges

Limited access to social protection mechanisms is one of the main policy challenges in achieving sustainable growth, productive employment and decent work. While comprehensive statistical information is scarce, the ILO estimates that less than one-tenth of the economically active population in LDCs has access to social protection, including a minimum level of income security and access to health care. The ILO's *World Social Security Report 2010/11*<sup>77</sup> shows that in the majority of LDCs, less than one in 20 elderly women and men receive an old-age pension, which would provide them with income security in old age. Likewise, less than one in ten economically active women and men contribute to a pension scheme and can thus expect to be economically secure in the event of employment injury, disability or old age (see figure 8.1).

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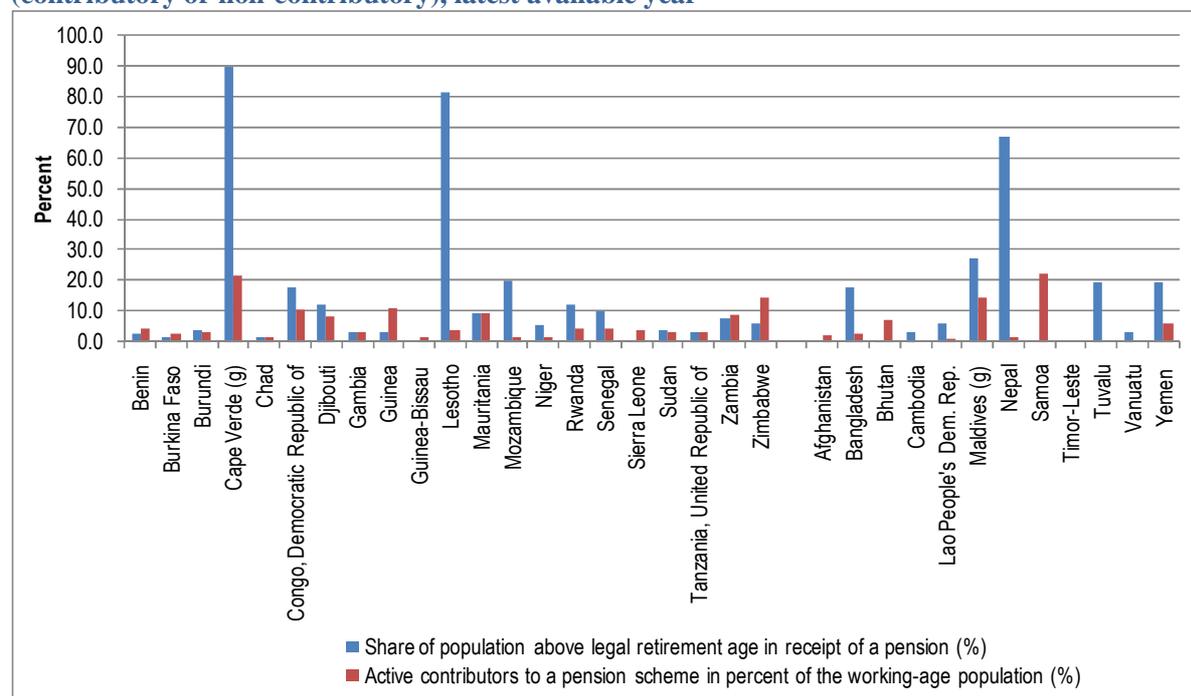
<sup>74</sup> Brussels Declaration, para. 2 in United Nations (2001).

<sup>75</sup> Para. 23(f) and (h) in United Nations (2010).

<sup>76</sup> For example, see *The Least Developed Countries Report, 2010*.

<sup>77</sup> ILO (2010), "World Social Security Report 2010/11: Providing coverage in the time of crisis and beyond".

**Figure 8.1: Effective social security coverage in LDCs and former LDCs: Access to pensions (contributory or non-contributory), latest available year**



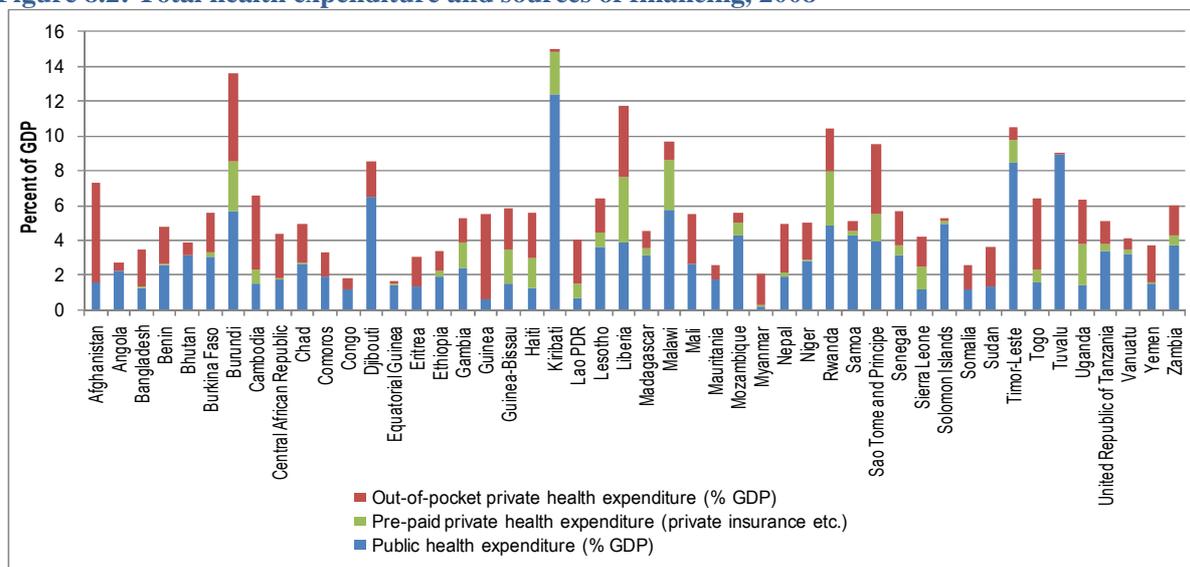
Source: Based on ILO, 2010, “World Social Security Report 2010/11: Providing coverage in the time of crisis and beyond”, annex table 21.

Note: Cape Verde and the Maldives graduated from LDC status in 2007 and 2011, respectively.

Likewise, a large proportion of the population in LDCs face financial barriers in accessing health-care services. On average, only 62 per cent of total health cost is pre-paid through public or private collective health financing mechanisms.<sup>78</sup> This leaves 38 per cent of the total cost of health care in LDCs to be paid out of pocket, which results in a high poverty risk for people at a vulnerable moment of their lives, and the lives of their families. This indicator does not, however, reflect the fact that many of the poorest groups of the population do not access health services in the first place as they cannot afford to spend on health care at all. Overall, levels of health spending vary strongly (see figure 8.2). High levels of spending are, however, also not necessarily associated with a good health infrastructure, a well-trained workforce of health workers, and the accessibility of health services for people in remote areas and very poor people. International evidence shows that the efficient use of the available resources can make a difference in ensuring quality health services, even at a relatively small cost.

<sup>78</sup> Calculated based on WHO National Health Accounts data; see also ILO (2010), “World Social Security Report 2010/11: Providing coverage in the time of crisis and beyond”, annex table 27.

**Figure 8.2: Total health expenditure and sources of financing, 2008**



Source: Author's calculations based on WHO National Health Accounts.

The lack of social security coverage is closely associated with the prevalence of informal employment in most LDCs. Informal economy workers usually are not or are insufficiently covered – in law or in practice – by formal social security arrangements.<sup>79</sup> In most LDCs, social insurance covers only wage and salary workers in the formal economy, sometimes excluding workers on temporary contracts or in small enterprises. In many countries, there have been commendable efforts to extend the coverage of formal schemes to additional categories of workers through the extension of coverage of social security schemes to workers at the margins of formal employment, or the complementary use of micro-insurance schemes. These efforts have been successful where the design, financing and administration of schemes respond to the specific needs of the covered groups of workers. Innovative measures are needed to accommodate the specific characteristics of their work, such as irregularity or seasonality of employment, low and/or fluctuating incomes, or their employment status (own-account workers and the self-employed).

International experience shows that, where national social insurance schemes do not offer comprehensive protection, micro-insurance schemes can play an important role if designed carefully. Where they are embedded in appropriate legal frameworks and national social protection strategies, where mechanisms have been found to share excessive risks in larger risk pools and to subsidize contributions for those groups of the population who have no or insufficient contributory capacities, micro-insurance schemes contribute to closing the coverage gap for groups that are difficult to reach.

Non-contributory programmes are another important component of national social protection strategies, as they are designed in a way that includes the most vulnerable groups of the population and guarantee at least a basic level of social protection for all.

<sup>79</sup> ILO (2008), "The informal economy: Enabling transition to formalization"; ILO (2002).

## Investing in social protection for economic and social development

While the economic and social realities in LDCs are very diverse, so are the policy strategies chosen to address the lack of social protection for large groups of the population. In recent years, many LDCs have embarked on national programmes to extend social protection coverage as a key component of their development strategies. The examples discussed below demonstrate that well-designed social protection policies are a key component for achieving sustainable and equitable growth and social cohesion.<sup>80</sup>

It is also remarkable that those countries that have already graduated from LDC status, namely Botswana (1994), Cape Verde (2007) and the Maldives (2011), have followed strategies of gradual extension of social security coverage and have invested strongly in social protection. For example, Cape Verde has successfully moved towards providing universal access to social security through the parallel extension of contributory and non-contributory programmes, and access to health care and other social services (see box 8.1).

### Box 8.1: Extension of social security coverage in Cape Verde

Cape Verde has followed a double-pronged strategy for the extension of social security coverage, by combining progressive extension of contributory social insurance (vertical approach) with the provision of basic non-contributory benefits (horizontal approach). During the last ten years, social insurance coverage has doubled from 14 to 29 per cent of the economically active population. Benefits of social insurance include old-age, disability and survivor pensions, health-care coverage, maternity, sickness, paternity benefits and family allowance, among others. The main social insurance institution (INPS) is currently engaged in improving efficiency, governance and compliance, and extending coverage to previously excluded groups such as domestic workers and the self-employed.

Tax-financed social security programmes also expanded sharply in recent years. The non-contributory pension, launched in 1994, now reaches 90 per cent of the target population and was strengthened with the creation of the National Centre for Social Pensions (CNPS). The level of the pension has been regularly increased, reaching today the amount of 4,500 escudos (about US\$60), one of the highest in the African context. Essential health services cover nearly 100 per cent of the population through the joint efforts of the Ministries of Health and Social Security. From the beginning of independence, Cape Verde has used employment-intensive public works (FAIMOs) as a means of guaranteeing an income for the working poor. Between 15,000 and 20,000 people, one-third of them women, have access to FAIMOs each year, representing a significant proportion of the active population (around 15 per cent in 1990). Public works have recently been reformed but remain an important component to provide income security to both the unemployed and the working poor. An income security programme for children is provided mainly through the school feeding programme. Children with disabilities have recently been included in the non-contributory pension scheme.

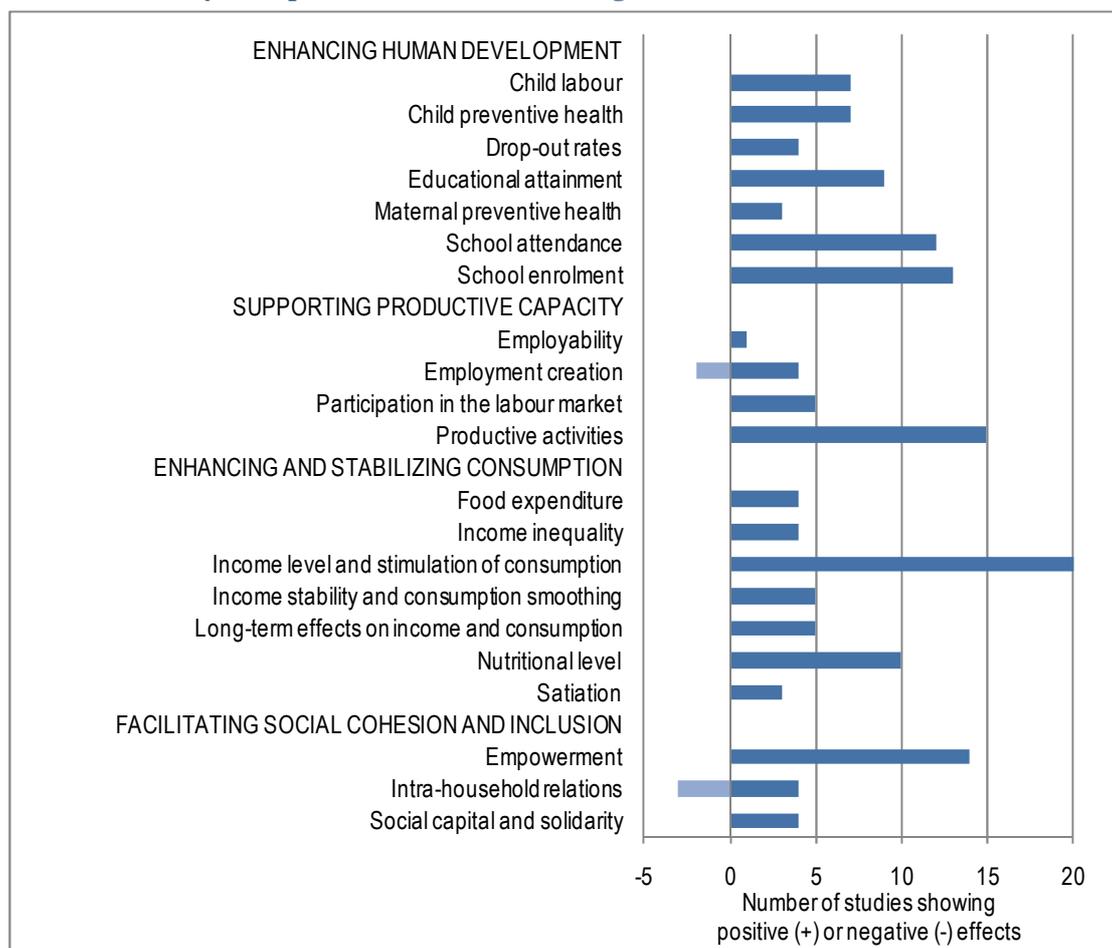
The combined and well-coordinated efforts to extend social security coverage through both contributory and non-contributory programmes have resulted in an impressive increase in the coverage rate. It is believed that this strategy of investing in human development has also contributed to the improvement of human development indicators that are now among the highest in sub-Saharan Africa. Life expectancy at birth is 72 years, the infant mortality rate has halved within the last 20 years, the literacy rate is 80 per cent and the enrolment rate in primary education has recently reached 100 per cent. The poverty rate has decreased from 36.7 per cent in 2001 to 26.6 per cent in 2007. Cape Verde is one of the few countries in Africa that foresee reaching all of the targets for the Millennium Development Goals. The country gained the status of middle-income country in 2008.

Source: ILO, 2011, "Social security for social justice and a fair globalization: Recurrent discussion on social protection (social security) under the ILO Declaration on Social Justice for a Fair Globalization, box 4.1.

<sup>80</sup> ILO (2010), "Extending social security to all: A guide through challenges and options".

The increased interest in non-contributory social transfer programmes in developing countries also drew closer attention to the impact of such programmes. Micro-simulation studies have shown a strong impact of – even modest – transfers on the reduction of poverty in low-income countries, such as Senegal and the United Republic of Tanzania.<sup>81</sup> An ILO meta-study,<sup>82</sup> which assessed the results of about 80 individual studies on cash transfer programmes in 30 countries during the last ten years, has demonstrated that the measured impacts of cash transfer schemes have clearly and positively contributed to enhancing human development, supporting the full utilization of productive capacities, enhancing and stabilizing consumption and facilitating social cohesion and inclusion (see figure 8.3).

**Figure 8.3: Summary of impact assessments of existing social transfer schemes in 30 countries**



Source: Based on ILO (2010), “Effects of non-contributory social transfers in developing countries: A Compendium”; Orton (2010), “Reasons to be cheerful: How ILO analysis of social transfers worldwide augurs well for a basic income”, paper presented at: The 13th International Congress of the Basic Income Earth Network.

Note: The figure shows the number of studies that have demonstrated a clear positive or negative effect (only categories covered by three or more studies). Studies showing no or unclear effects are not reflected in this graph.

<sup>81</sup> Gassmann and Behrendt (2006).

<sup>82</sup> ILO (2010), “Effects of non-contributory social transfers in developing countries: A Compendium”.

## Extending social security and building a social protection floor

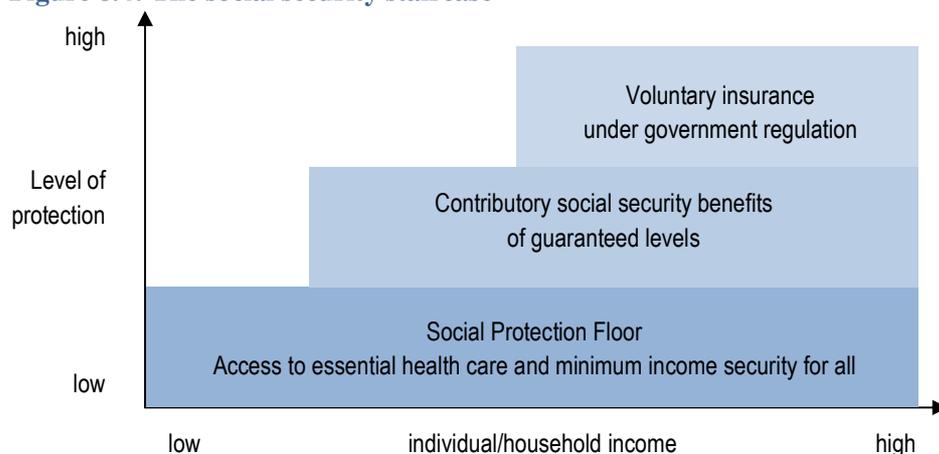
### *A two-dimensional strategy for the extension of coverage*

Balanced economic and social development requires a strong commitment to the extension of social security in line with the realities of each country. The ILO proposes a two-dimensional strategy for the extension of social security,<sup>83</sup> which includes:

- (1) The extension of some income security and access to health care, even if at a modest basic level, to the whole population (“horizontal” dimension).
- (2) The gradual progression to higher levels of income security and access to higher-quality health care at a level that protects the standard of living of people even when faced with fundamental life contingencies such as unemployment, ill health, invalidity, loss of breadwinner and old age (vertical dimension). This vertical dimension seeks to increase the scope of the coverage, i.e. the range and level of benefits, to at least a level that is in line with the ILO’s Social Security (Minimum Standards) Convention, 1952 (No. 102) and other Conventions.

Figure 8.4 shows the two dimensions of extension in a schematic way.

**Figure 8.4: The social security staircase**



While, in principle, the extension of social security along the horizontal and vertical dimensions should be pursued in parallel, the circumstances in most LDCs would require a gradual approach, starting with the countries’ main priority areas.

### *Building a social protection floor*

The pursuit of sustainable growth and public employment in LDCs would require more efforts in extending social security to more groups of the population, particularly with respect to workers in the informal economy, and to make the human right to social security a reality for the

<sup>83</sup> ILO (2010), “Extending social security to all: A guide through challenges and options”; ILO (2011).

population. This is also a critical element for the MDG Acceleration Framework. Examples from LDCs show that it is possible to gradually move towards ensuring universal access to health care and a basic level of income security in line with national priorities. The ILO promotes a basic set of guarantees that aim at a situation in which:

- all residents have the necessary financial protection to afford and have access to a nationally defined set of essential health-care services, in relation to which the State accepts the general responsibility for ensuring the adequacy of the (usually) pluralistic financing and delivery systems;
- all children have income security, at least at the level of the nationally defined poverty line level, through family/child benefits aimed at facilitating access to nutrition, education and care;
- all those in active age groups who are unable to earn sufficient income in the labour market should enjoy a minimum income security through social assistance or social transfer schemes (such as a minimum income guarantee for women during the last weeks of pregnancy and the first weeks after delivery) or through employment guarantee schemes;
- all residents in old age and with disabilities<sup>84</sup> have income security at least at the level of the nationally defined poverty line through pensions for old age and disability.

Such a set of guarantees is part of the Social Protection Floor Initiative, which the United Nations has launched as one of its joint crisis response initiatives. Jointly led by the ILO and WHO, the Social Protection Floor Initiative builds on a global coalition of UN agencies,<sup>85</sup> the IMF and the World Bank as well as development partners and leading non-governmental organizations (NGOs) with a view to supporting countries to plan and implement sustainable different elements of social protection systems.<sup>86</sup> Tripartite delegations from 47 African countries, many of them LDCs, called for “decisive steps to improve the level of social security for all in Africa by the adoption of a two-dimensional strategy for the extension of effective social security coverage”, in the Yaoundé Tripartite Declaration on the Implementation of the Social Protection Floor in October 2010.<sup>87</sup> National initiatives have been undertaken in several countries, including Benin, Burkina Faso, Cambodia, Mozambique, Nepal and Togo, as well as in Haiti, in the context of the joint UN support strategy.

The social protection floor concept is explicitly conceived as a set of guarantees that can be adapted to national conditions and priorities, and that can be achieved gradually. As such, this concept is well suited for the realities of LDCs, where fiscal space is tight and institutional

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<sup>84</sup> This means a degree of disability that excludes them from labour market participation.

<sup>85</sup> This includes FAO, OHCHR, UNAIDS, UNDESA, UNDP, UNESCO, UNFPA, UN-HABITAT, UNHCR, UNICEF, UNODC, UN Regional Commissions, UNRWA, WFP and WMO.

<sup>86</sup> United Nations (2009), “Social Protection Floor Initiative: The sixth initiative of the CEB on the global financial and economic crisis and its impact on the work of the UN system: Manual and strategic framework for joint UN country operations”.

<sup>87</sup> ILO (2010), “Yaoundé Tripartite Declaration on the Implementation of the Social Protection Floor”.

capacities are scarce. In such contexts, the social protection floor concept helps to identify and focus on the most important priorities while gradually further expanding fiscal space and institutional capacities, and gradually progressing towards more complete levels of protection. It is important to underline that the social protection floor is a rights-based concept that emphasizes the importance of institution- and state-building, including legal frameworks and effective and equitable tax policies.<sup>88</sup> While donor support might be necessary to build up effective social protection programmes, appropriate consideration needs to be given to the question of sustainable financing of such programmes in the longer run.

The rationale for introducing a basic set of social security guarantees is grounded in rights, but the level and scope of benefits in any given country will have to reflect the prevailing capacity to finance the benefits. ILO estimates have shown that, in principle, a basic social protection package is within the reach even of low-income countries, as demonstrated by ILO cost estimates<sup>89</sup> and various country experiences. Some resource-rich countries have been successful in channelling some of the proceeds of their commodity exports into investments in social protection with a view to achieving sustainable, broad-based economic growth and social development. Some countries not endowed with natural resources, and therefore more limited fiscal space, have prioritized – albeit modest – social protection programmes with a view to investing in their people – their main asset. A national forward-looking social security strategy and diagnosis of priority needs can help sequence the implementation of various social programmes and policy instruments that address individual guarantees. The examples in many middle- and low-income countries show that some elements of the floor are affordable everywhere, others may have to undertake steps to extend the fiscal space through improving the tax collection or through policy and governance decisions.

### ***The vertical dimension: Reaching higher levels of social security***

While the horizontal extension of social security is essential, and will certainly constitute the main priority for many LDCs, it is also important to stress that social protection cannot stop at the ground floor. As economies grow and become more resilient, so should people's income security and their effective access to health care. The experience of the global crisis in many parts of the world has illustrated the importance of social security schemes as automatic stabilizers that play a key role in stabilizing aggregate demand, protecting the human development gains achieved and supporting structural change. The ILO supports countries at all stages of development of their social security systems to build a long-term vision in line with the aspirations articulated in the up-to-date higher-level social security standards.

### **Moving forward with the extension of social security**

Despite the various challenges regarding the extension of social security faced by LDCs, various country examples demonstrate that social protection is an indispensable – and feasible – element of a broad-based social and economic development strategy. The following sections present some country examples for various elements of a social security extension strategy for LDCs.

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<sup>88</sup> ILO and Townsend (ed.) (2009), "Building decent societies: Rethinking the role of social security in state building".

<sup>89</sup> ILO (2008), "Can low-income countries afford basic social security?", Social Security Policy Briefings 3.

## **Extending social health protection**

Effective access to health care is one of the main social protection priorities for the population in developing countries. Such access is not only critical for enhancing the immediate well-being of the population, but also with respect to enhancing the productive capacities of the population in the short and long term. The extension of social health protection, defined as guaranteeing effective access to affordable quality health care and financial protection in case of sickness, to previously uncovered groups of the population, is therefore high on the agenda for many LDCs.<sup>90</sup> Various policy initiatives in LDCs show that effective social health protection policies are not only a matter of financial resources, but also depend on well-designed legal frameworks, institutional structures, quality controls and coordination mechanisms. The example of Rwanda (see box 8.2) demonstrates that a combination of various health insurance mechanisms and well-designed public subsidies, as elements of a national effort to promote universal mandatory health insurance coverage, can help to quickly extend social health protection to the population and achieve better and more equitable health outcomes.

## **Social pensions, income security in old age and their role for development**

The important role of social pensions for development is increasingly recognized worldwide, including in LDCs. The low life expectancy rates at birth in many LDCs mask the fact that, on average, women and men aged 60 can expect to live around 15 more years, yet they tend to face a decline of their earning capacities and income security.<sup>91</sup> As a result, old age constitutes one of the major poverty risks for those without sufficient pension incomes from other sources. By providing a modest regular income, social pensions help to secure at least a basic living standard for older persons and their families, with positive effects on the health, physical development and school attendance of children living in households with pensioners.<sup>92</sup> Social pensions are likely to play an even more important role in the future, given that the share of older people in the total population of LDCs is projected to increase from 5.2 per cent in 2010 to 11.1 per cent in 2050.<sup>93</sup>

A number of LDCs and former LDCs have already implemented social pension programmes for their elderly population (see table 8.1).

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<sup>90</sup> ILO (2008), “Social Health Protection: An ILO strategy towards universal access to health care”, Social Security Policy Briefings 1.

<sup>91</sup> Estimates refer to the period 2000–05, based on UN Population Prospects (2008 revision) data.

<sup>92</sup> ILO (2010), “Effects of non-contributory social transfers in developing countries: A Compendium”.

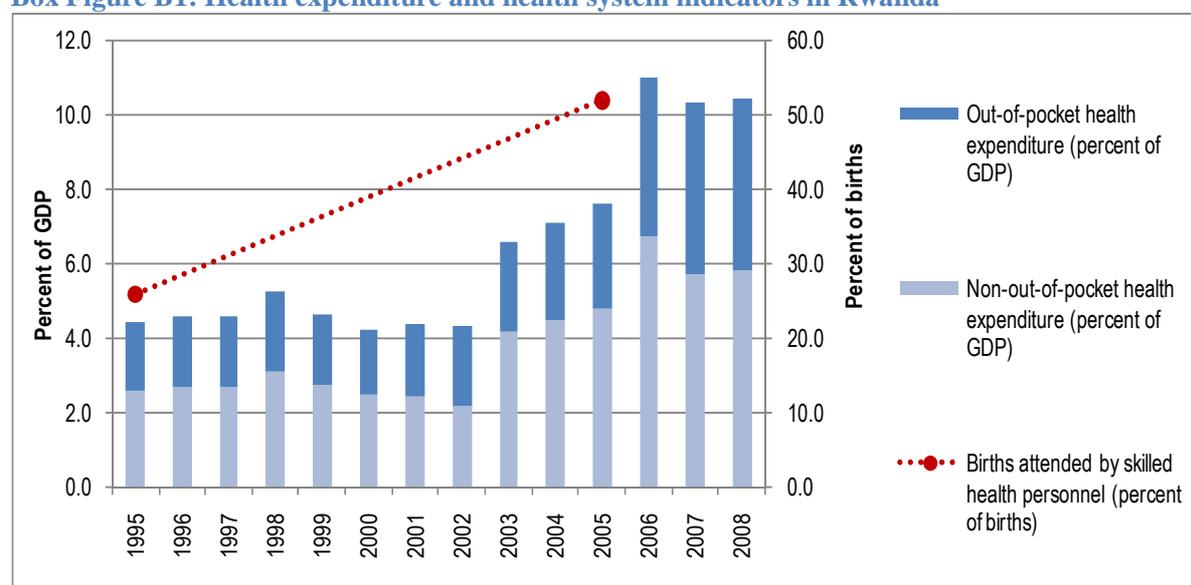
<sup>93</sup> Population aged 60 years and older, calculated from UN Population Prospects (2008 revision) data.

### Box 8.2: Extending health insurance coverage in Rwanda

During recent years, Rwanda has made extraordinary efforts to rebuild its health-care infrastructure and refocus its health-care policy towards a rapid extension of coverage with a strong emphasis on decentralization of management. In an effort to improve the financial access to health care and the mobilization of domestic resources to ensure the necessary level of funding, community health insurance organizations were designed to supplement other health insurance mechanisms. The coverage of community-based health insurance schemes gradually increased from 7 per cent in 2003 to 86 per cent in December 2009.

The financing of the community-based health insurance programmes is based on individual and family contributions of around US\$2 per person per year. Where these contribution rates exceed the family's capacity to pay, various mechanisms are in place to subsidize contributions through transfers between insurance funds and payments from charities, NGOs, development partners and the Government of Rwanda. A new policy adopted in April 2010 aims at introducing a contribution system based on each household's capacity to pay in order to strengthen the equity and financial sustainability of the system.

Box Figure B1: Health expenditure and health system indicators in Rwanda



Source: Based on WHO National Health Accounts and World Health Statistics 2010.

The health-care reform has increased the resources invested in the health-care system, yet it has not yet led to a marked reduction in the proportion of out-of-pocket health expenditure, which is often considered as a major contributing factor of financial insecurity (see box figure B1 above). However, what becomes evident is that some health indicators already have markedly improved. This is true for indicators reflecting the utilization of services (see box figure B1), as well as on health outcomes such as a drop in infant mortality from 112 to 72 children per 1,000 live births between 2000 and 2008. Further efforts to facilitate access to quality health services are likely to further improve the achieved results.

Sources: Rwanda Ministry of Health (2010), "Rwanda Community-based Health Insurance Policy" (Kigali: Ministry of Health of the Republic of Rwanda); Logie, Rowson and Ndagije (2008), "Innovations in Rwanda's health system: looking to the future", *The Lancet*, pp. 256-261.

**Table 8.1: Social pension programmes in selected LDCs and former LDCs**

	Programme	Monthly benefit level	Eligibility	Cost
Botswana (LDC until 1994)	Universal old-age pension, introduced 1996	220 pula (US\$31)	Citizens aged 65 and older	0.4% of GDP
Cape Verde (LDC until 2007)	Social pension, introduced 1994	4,500 escudos (US\$50) equivalent to 20% of average income	Men and women aged 60 years and older with income below threshold	
Lesotho	Old-age pension, introduced 2004	300 maloti (US\$40), equivalent to 64% of average income	Men and women aged 70 years and older	1.43% of GDP
Maldives (LDC until 2011)	Social pension, introduced 2009	2,000 rufiyaa (US\$156), equivalent to 45% of average income Social pension reduced at a rate of 50% if other pensions received	Men and women aged 65 years and older 85,100 eligible older persons (4.4% of total population)	
Nepal	Social pension, introduced 1995	50 rupees (US\$7), equivalent to 17% of average income	Men and women aged 70 years and over (until 2008, 75 and over)	0.23% of GDP
Timor-Leste	Old-age pension <i>Subsidio de Apoio a Idosos e Inválidos</i> , introduced 2008	US\$30 (until 2010: US\$20), equivalent to 45% of average income	Men and women aged 60 years, and working-age persons with disabilities 82,000 beneficiaries	US\$29 million (budgeted for 2010) 3.26% of GDP (2009)

Sources: Official information from the respective governments, HelpAge Pensions Watch database.

The example of Nepal (see box 8.3) shows that such social pension programmes can start with strict eligibility criteria and modest levels of benefits, but nevertheless play an important role for securing a regular income for some of the most vulnerable groups of the population.

### **Box 8.3: The universal social pension in Nepal**

The non-contributory social pension scheme of Nepal, which was introduced in 1995, demonstrates the capacity of a low-income country at a gross national income (GNI) per capita of US\$440 to gradually extend social protection to its population. The provision of allowances to older people aged 75 years and above was introduced along with the allowances to poor widows aged 60 years and above. In the fiscal year 2008–09, the Government of Nepal reduced the age threshold for older people from 75 years to 70 years. At the same time, the Government also increased the pension to 50 rupees per person per month. This expansion of the pension scheme had been taken as recognition by the State of the important role that older people play in the Nepali society.

The pension is managed by the Ministry of Women, Children and Social Welfare, and distributed by the Ministry of Local Development at the village level. It was estimated that approximately 76 per cent of eligible older people received allowances in the year 2006–07. The scheme in 2006–07 represented 0.23 per cent of Nepal's GDP. The expenditure on the pension scheme will increase not only because of the change in the age threshold, but also because of an increase in the number and percentage share of people surviving to old age (decline in mortality and fertility). Increased longevity and modernization have affected the status of older people in Nepali society. On one hand, family obligations are well accepted, so older people frequently live in their own homes with their children and/or grandchildren. On the other hand, migration from rural to urban areas and modern lifestyles have changed traditional family structures and roles.

## Providing income security for children and their families

Children and families naturally stand at the focus of policies aiming at promoting investment in human capital, and equitable and sustainable growth, productive employment and decent work. It is now well accepted that early investments in nutrition, health and education of children contribute to enhancing the productive capacity of the population in the long run. There is also strong evidence for the positive benefits of well-designed social protection programmes for the prevention of child labour. Various examples from Latin America and other parts of the world demonstrate the role of cash benefits in reducing poverty and achieving positive development results. Some LDCs have also engaged in large-scale cash transfer programmes focusing on vulnerable children and their families. The example of Timor-Leste (see box 8.4) demonstrates the potential of cash transfers for children as part of a wider social protection strategy. It also demonstrates how countries can use the proceeds of their natural resources to finance investments in social protection.

### **Box 8.4: Extending social security coverage in Timor-Leste**

Since gaining independence in 2002, Timor-Leste has made efforts to gradually extend social security coverage to its citizens to overcome crises, fight hunger and poverty and reduce social tensions. In 2008, a conditional cash-transfer scheme (*Bolsa-Mãe*) was introduced, which focuses on female-headed households with children. The size of the cash transfer varies according to the family structure. As of 2010, the programme covers 11,000 families (about 6 per cent of the population).

Two pension schemes were introduced: a pension scheme for veterans of independence (2006) and a universal basic pension programme (*Subsídio de Apoio a Idosos e Inválidos*, 2008) that covers all Timorese citizens aged 60 years or older and those with disabilities aged 18 years or older. The scheme now pays US\$30 per month (the initial benefit level was US\$20) with 12 payments per year, and had 82,000 beneficiaries during 2010 at a budgeted cost of US\$29 million.

In addition to these non-contributory benefits, the Ministry of Social Solidarity is currently preparing, with ILO support, the gradual introduction of a unified social insurance scheme that will cover public servants, military, police and workers in the private formal sector.

Source: Official information from the Government of Timor-Leste.

## **Moving forward with the extension of social security: Policy recommendations**

The following policy recommendations are made for extension of social security in LDCs:

- Given the value of social protection as a key investment in human development and a contribution to growth, productive employment and decent work, LDCs should step up their efforts to extend social security to larger groups of the population. The extension of social security, including the establishment of national social protection floor policies, should be pursued in line with national priorities and capacities, and with appropriate technical and financial support from development partners.
- All countries already have some mechanisms in place to provide social protection. Social protection floors should be built on a careful analysis of existing structures and mechanisms to exploit synergies, increase efficiency and smooth implementation. Existing systems should be expanded, reoriented or extended to ensure optimal impact on poverty prevention, poverty reduction and redistribution.
- National social protection strategies in LDCs should be developed and monitored through a broad social dialogue, involving social partners and other stakeholders, in order to ensure wide support and successful implementation. These social protection strategies should aim at achieving a coordinated approach to combine contributory and non-contributory programmes to realize the human right to social security, including at least a minimum level of income security and effective access to health care.
- The establishment of national social protection floors in LDCs should be based on a detailed assessment of existing fiscal space, and ways of ensuring sufficient fiscal space in the future. Where fiscal space is tight, it may be feasible to pursue a gradual implementation of social protection programmes, to explore ways of enhancing effective and equitable tax collection policies and procedures and to request transitional financial assistance from development partners.
- Resource-rich LDCs should explore better ways to channel some of the proceeds of their commodity exports into investments in social protection, with a view to sharing their natural wealth more broadly among their population, investing in human capital and gradually moving to more diversified economic activity and productive employment.

Sufficient attention needs to be given to strengthening institutional capacities, including the training of staff for the design, management and administration of national social security systems, and ensuring good governance of social protection programmes.



## Chapter 9: Conclusions and policy guidelines

This report has reviewed trends in growth, employment and decent work in LDCs, highlighting challenges and opportunities for structural transformation, job creation and poverty eradication. It has highlighted in particular the relationship between growth and employment; macroeconomic policies, trade policies and employment; the sectoral patterns of growth; labour market institutions and policies in countries characterized by high incidence of informality; the role of public sector investment and public employment programmes; the role of proactive productive transformation and industrial policies; and social protection.

This last chapter summarizes some of the main points of the diagnosis and suggests a portfolio of policy guidelines or directions to confront them. Although the guidelines need to be tailored to country needs and circumstances, it is hoped that they provide a reasonably comprehensive and useful checklist against which countries can think about better policy rebalancing.

### **Growth and employment**

#### Basic diagnosis

After stagnant growth in the previous decades, in the 2000 LDCs experienced a growth revival. Growth picked up to 7 per cent over 2002–07, to slump with the crisis. The high and volatile growth in African LDCs owes more to an export price-led investment boom in commodities, with manufacturing stagnating. Lower and less volatile growth in Asian LDCs owes more to investment in export of manufactures. Island LDCs have been performing weakly on both counts. Manufacturing-led growth has allowed lower unemployment levels and better decent work indicators, even though major gaps remain.

#### Policy guidelines

The analysis suggests two broad policy guidelines to improve the macro growth and employment relationship:

- 1) To promote export and sectoral diversification. Moving from commodities to manufacturing is needed to improve employment and decent work outcomes.
- 2) To raise investment in manufacturing and in agriculture and promote sustainable enterprises. This is a necessary condition to raise productivity, competitiveness, employment and incomes. This requires increasing both private and public investment to raise aggregate demand and put in place a possible employment floor. Raising private investment has to be based on raising savings and promoting sustainable enterprises. Raising public investment has to be based on raising the revenue base and an accommodating macro policy framework.

## **Macroeconomic policies, job creation and poverty reduction**

### Basic diagnosis

Macro policy has not been growth-accommodating in the LDCs, and certainly not responsible for the pick-up in growth in the last decade. Macro fundamentals have improved in the LDCs, especially in terms of price volatility and budget balances, but the improved debt space may not have afforded the full measure of the fiscal space needed by LDCs.

### Policy guideline

- 3) To have a macroeconomic framework that explicitly takes into account job creation and poverty reduction. Fiscal space is better seen as a four-cornered fiscal diamond that harmonizes additively four elements: domestic resources, official development assistance (ODA), deficit financing and expenditure efficiency. Monetary policy has to go beyond inflation targeting, recognize the borrowing cost constraints on growth and move towards financial inclusion. Exchange rate and capital account management regimes must aim for competitive and stable exchange rates that cope with capital flows and accommodate structural transformation.

## **Harnessing trade for growth, employment and poverty reduction**

### Basic diagnosis

Export concentration is expected to give way as income increases to export diversification. Instead, for LDCs, the Herfindahl index of export concentration has increased since the late 1990s. There has been a strong product concentration in mining. One of the main reasons for product concentration in exports appears to be the inability of LDCs to establish long-term trading relationships. The structure of LDC exports has also not been employment-enhancing. Productivity growth allows expansion of exports, but with less employment, while increased growth volatility due to increasing trade makes the poor more vulnerable.

### Policy guidelines

- 4) Not one trade policy is optimal, trade policy choices depend on the level of development, the size of the market, and sequencing and timing issues are key. To counter weaknesses in trade, smarter industrialization policies are called for, where the State avoids the mistakes of the past, and follows the export patterns of countries with similar endowments but twice the incomes. A clear enterprise promotion and training strategy has to be at the centre of the trade strategy. Social protection and minimum wage policies are needed to cushion trade shocks and volatility, and to protect the more vulnerable.
- 5) To ensure that the global economy better accommodates LDCs' trade needs. This can be achieved by measures such as reducing trade barriers and price volatility in commodity markets.

## **Agriculture**

### Basic diagnosis

Agriculture has been neglected and has stagnated as a consequence, especially in African LDCs, where cereal growth has mostly been slower than population growth. This has been due to a number of factors, including a run up of declining terms of trade for agriculture inhibiting investment, trade liberalization exposing domestic agriculture to international competition that is often subsidized, structural adjustment programmes that dismantled or discourage needed public infrastructure in rural areas, and natural resource-driven appreciating exchange rates making domestic agriculture less competitive. Weak manufacturing has also inhibited a healthy symbiotic relationship that demands agricultural products and vice versa.

Climate change particularly affects the rural poor because of their dependence on natural capital such as the soil, forests, water, fish and other such ecosystems, and these are the sectors more subject to climate change. In LDCs, climate change is expected to lower yields and increase water stress. Rising temperatures will entail curtailing of high value crops such as coffee. Unsustainable agricultural practice further lowers land productivity.

### Policy guidelines

- 6) To reduce the yield gap between domestic and median global agricultural production, and invest in rural infrastructure and services. This requires a green revolution in African LDCs on the lines of Asia in the 1960s, with enhanced irrigation, fertilizer and infrastructure. Some African LDCs have demonstrated the efficacy of this package. Population pressures in rural areas require in addition the development of rural non-farm enterprises and employment. The role of the developmental state in expanding much-needed public infrastructure to meet the needs of the private sector is crucial for a productive transformation of LDCs.
- 7) To invest in a variety of agricultural techniques that maintain land productivity, returns and sustainability. This can be achieved through measures such as the use of sustainably produced and biological nutrient inputs replacing chemical ones, soil and water conservation, and improving post-harvesting and processing technology. The application of these types of measures has demonstrated positive impacts on yields and incomes.

## **Labour market institutions and informality**

### Basic diagnosis

Informality has multiple causes and drivers in LDCs. Very low growth of formal employment, high rate of population growth, high incidence of poverty and very weak social protection drives surplus labour into informality. Urban and rural informality are characterized by low productivity, low returns, high risk and very low social protection coverage. Self-employment and vulnerable employment constitute the major categories of the informally employed, and these have been seen to be weakly affected by the high growth in LDCs. Outflows from weakly growing agriculture largely supplies informality.

Labour market institutions, such as regulations to protect workers and their wages, are largely judged by surveys to do just that, rather than to hinder enterprise development. They exist, however, only in the formal economy, where their enforcement is also variable.

#### Policy guideline

- 8) To promote the transition to formality. This requires integrated interventions that attack the multiple drivers of informality, including: job-rich growth, improvements in regulations, strengthening the organization and representation of informal economy workers, promoting entrepreneurship, skills, finance, extension of social protection, local development strategies.

### **Public investment and public employment programmes**

#### Basic diagnosis

The infrastructure deficit in power, water, transport and ICT in LDCs is high and particularly pronounced for African LDCs. This is because of observed declining public investment. Poor infrastructure is estimated to reduce GDP growth by 2 percentage points per annum in African LDCs. On the other hand, increasing public investment in infrastructure can demonstrably increase employment alone, using local resource-based methods by a factor of three to five compared to conventional infrastructure development. Accordingly, policy to increase public investment in infrastructure should have the ambition to raise aggregate demand, growth and employment.

There have been major innovations in the last decade in the design and implementation of effective public employment programmes. To the well-established genre of public works programmes and cash transfers has been added an innovative employment guarantee scheme, which in India provides 100 days of employment per rural household on demand. LDCs like Ethiopia have begun such types of programmes. Developing employment guarantee programmes may well be a way to cut structural unemployment and seasonal surplus labour in LDCs. Important challenges to be incorporated in such programme development include: the large budget running into 1-2 percentage points GDP; targeting to eliminate leakages; and building in a graduation strategy from such programmes.

#### Policy guidelines

- 9) To enhance investment in infrastructure and ensure that these investments are designed and implemented with the specific objective of boosting employment.
- 10) To take advantage of the significant innovations in the design and implementation of effective public employment programmes.

## **Promoting catching-up growth**

### Basic diagnosis

Empirical evidence from successful catching-up countries shows that educational transformation preceded accelerated productive transformation. In other words, capabilities are an important condition for productive transformation. LDCs with average years of schooling above 4.5 years tend to have higher shares of manufacturing in GDP. LDCs with a symmetrical schooling pyramid in primary and secondary education tend to have the highest shares in manufacturing. These critical years of schooling help trigger an option space for industrial diversification and transformation. Industrial diversification is a bootstrap learning programme, so what a country produces matters. All successful catching-up countries have also had some type of industrial policy, with a smart mix of incentive carrots, sticks to prevent rent-seeking, and nurturing infant industries. Trade liberalization has been gradual and sequenced to allow the private sector to climb up the capability curve. Often, FDI has made an important contribution in terms of allowing imports of technology and accelerating learning, but to maximize this process complementary policies are necessary. The use and upgrade of the informal apprenticeship system has also been observed to be an important contribution to enhance capabilities.

### Policy guidelines

- 11) To increase the level of education and to reduce the share of the population without schooling. Transforming the educational structure of the labour force in a balanced manner is important in order to enlarge the option space for sustained diversification into low- and medium-technology manufacturing. A key element in this process is to provide women with equal access to basic education and develop their talents in order to fully use the potential of the labour force for rapid catching up.
- 12) To promote diversification into new technologies and higher value-added manufacturing for increased productivity. This can be achieved by designing learning strategies that combine incentives and compulsion with support measures, and targeting learning-intensive sectors in addition to sectors with comparative advantages. Multilateral trade rules provide sufficient policy space to provide temporary trade protection in order to nurture infant industries, create learning opportunities and build domestic capabilities and new comparative advantages.
- 13) To take advantage of South-South cooperation to transfer appropriate technologies, importing cheaper capital goods and exporting low-technology goods.
- 14) To attract domestic and foreign investment in non-traditional tradables and support learning networks between domestic and foreign firms, such as value chains, joint ventures, clusters, industrial parks or business incubators.
- 15) To promote exports and use government procurement to enlarge markets for locally produced goods in order to benefit from increasing returns, more productive employment and learning space.

- 16) To develop the potential of the informal apprenticeship system and strengthen the institutional capabilities to provide training for advanced technologies, and improved quality and effectiveness of training in order to promote productive transformation in the crafts sector and informal economy.

## **Social protection**

### Basic diagnosis

Less than one-tenth of the economically active population in LDCs has access to social protection, including minimum income security and health care. Lack of access to social security largely hinges on the prevalence of informality, which has no or low coverage. And to prove the point, the three graduates from LDCs so far, Botswana, Cape Verde and the Maldives, all had gradually extended social protection. By undermining human capital and increasing uncertainty for the population, limited access to social protection is in itself an obstacle to achieving sustainable growth and productive employment.

The ILO and WHO's Social Protection Floor Initiative, launched by the UN, has received strong endorsement from many African LDCs, for example. Extending social protection to the heterogeneous LDCs has to be step-based, moving from a social protection floor giving access to essential health care and minimum income security, to contributory social security benefits, to voluntary insurance under governmental regulation. As such, the social protection floor is particularly well suited to the LDCs where fiscal space and institutional capacity may be constrained. Some countries not endowed with natural resources have invested in modest social protection programmes, while resource-rich countries have channelled some of the revenue into social protection. Examples of health care and pensions have been afforded by low-income countries in Africa and Asia.

### Policy guideline

- 17) To extend social security to larger groups of the population, including the establishment of national social protection floor policies. Social protection floors should be built on a careful analysis of existing structures and mechanisms to exploit synergies, increase efficiency and smooth implementation. National social protection strategies in LDCs should be developed and monitored through a broad social dialogue, involving social partners and other stakeholders. The establishment of national social protection floors in LDCs should be based on a detailed assessment of existing fiscal space, and ways to expand it in the future. Resource-rich LDCs should explore better ways to channel some of the proceeds of their commodity exports into investments in social protection. Sufficient attention needs to be given to strengthening institutional capacities.

## **Social dialogue and developmental governance**

### Basic diagnosis

Two common and mutually supporting themes run through this report: first, the need for policy formulation and implementation to be based on broad-based social dialogue. From macro policies, to productive transformation, to social protection and transition to formality, experience shows that broad participation and ownership of policy frameworks is essential for more effective policy design and implementation. Second, political, technical and institutional capabilities matter for positive outcomes, hence the importance of good governance. In LDCs, both skilled staff and financial resources are often in short supply. However, in LDCs, the good governance agenda should not be only restricted to transparency and accountability, but should also include good development governance in the sense of building up the developmental capabilities of the State over time.

### Policy guideline

- 18) To commit to formulate and implement these policies through broad-based social dialogue and to improve the quality of governance and public services.

## **International labour standards**

### Basic diagnosis

Fundamental values of freedom, human dignity, social justice, security and non-discrimination are essential for sustainable economic and social development and efficiency. Freedom of association, the right to collective bargaining, the right to equal treatment, the abolition of forced labour and child labour reflect not only fundamental human rights, but also essential conditions for stable and strong democracies and for sustainable social and economic development.

However, LDCs face significant implementation gaps. Many LDCs have not yet fully developed the governance structures and institutions necessary for promoting the rule of law, implementing labour law reform and complying with international obligations, including ILO Conventions ratified by these countries. Fifteen of the 49 LDCs have not yet ratified one or more of the eight fundamental ILO Conventions (Conventions Nos. 29, 87, 98, 100, 105, 111, 138 and 182)<sup>94</sup> while 47 of the 49 countries have not ratified one or more of the four ILO governance instruments (Conventions Nos. 81, 122, 129 and 144).<sup>95</sup> Those that have ratified are experiencing significant challenges in meeting their obligations in terms of reporting and implementation. In addition, the application of labour laws is generally weak, and labour inspection systems are

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<sup>94</sup> The Forced Labour Convention, 1930 (No. 29); the Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87); the Right to Organise and Collective Bargaining Convention, 1949 (No. 98); the Equal Remuneration Convention, 1951 (No. 100); the Abolition of Forced Labour Convention, 1957 (No. 105); the Discrimination (Employment and Occupation) Convention, 1958 (No. 111); the Minimum Age Convention, 1973 (No. 138); and the Worst Forms of Child Labour Convention, 1999 (No. 182).

<sup>95</sup> The Labour Inspection Convention, 1947 (No. 81); the Employment Policy Convention, 1964 (No. 122); the Labour Inspection (Agriculture) Convention, 1969 (No. 129); and the Tripartite Consultation (International Labour Standards) Convention, 1976 (No. 144).

under-resourced, and thus function poorly. Moreover, trade unions and employers' organizations generally lack the capacity and resources necessary to enable them to function effectively and social dialogue institutions are weak. Despite some progress in terms, for instance, of an increase in the numbers of wage and salary workers, key indicators of decent work show at the same time that the numbers of vulnerable workers and the working poor in the LDCs have increased. Protection of and compliance with worker's rights has been low. Protection of rights in the predominant informal economy is very weak at best. Much of the labour force is in the rural areas, where more onerous non-contractual forms of work abound, in both agriculture and rural non-farm work, leading to protection gaps especially for vulnerable groups such as women, children and indigenous peoples. Increased vigilance is necessary to ensure that respect for fundamental principles and rights at work are not compromised. International labour standards provide the indispensable normative and rights-based foundation of the Decent Work Agenda and are central to any strategies to foster more balanced economic and social development. They are an important component of a rights-based approach to development and should be integrated into Decent Work Country Programmes (DWCPs) and more generally mainstreamed into national policies and development frameworks implemented by LDCs.

#### Policy guidelines

- 19) Improve the promotion of the ratification and implementation in law and practice of labour standards; design innovative schemes for the extension of protection to workers in the informal economy, including through more effective labour inspection systems. Effectively extend representation rights to all vulnerable categories of workers, including rural workers, women, children and indigenous peoples. Pursue time-bound programmes to combat child labour and forced labour.
- 20) Take advantage of ILO technical assistance to help reduce the implementation gap on international labour standards in LDC countries and mainstream international labour standards into Decent Work Country Programmes (DWCPs) and United Nations Development Assistance Frameworks (UNDAFs) with a view to achieving a progressively increasing coverage of each of the strategic objectives.

## **Policy guidelines to promote growth, employment and decent work in LDCs**

- 1) To promote export and sectoral diversification. Moving from commodities to manufacturing is needed to improve employment and decent work outcomes.
- 2) To raise investment in manufacturing and in agriculture and promote sustainable enterprises.
- 3) To have a macroeconomic framework that explicitly takes into account job creation and poverty reduction.
- 4) No one trade policy is optimal, trade policy choices depend on the level of development, the size of the market, and sequencing and timing issues are key.
- 5) To ensure that the global economy better accommodates LDCs' trade needs.
- 6) To reduce the yield gap between domestic and median global agricultural production and invest in rural infrastructure and services.
- 7) To invest in a variety of agricultural techniques that increase productivity, returns and sustainability.
- 8) To promote the transition to formality.
- 9) To enhance investment in infrastructure and ensure that these investments are designed and implemented with the specific objective of boosting employment.
- 10) To take advantage of the significant innovations in the design and implementation of effective public employment programmes.
- 11) To increase the level of education, ensuring equal access for women and to reduce the share of the population without schooling.
- 12) To promote diversification into new technologies and higher value-added manufacturing for increased productivity.
- 13) To take advantage of South-South cooperation to transfer appropriate technologies, importing cheaper capital goods and exporting low-technology goods.
- 14) To attract domestic and foreign investment in non-traditional tradables and support learning networks between domestic and foreign firms, such as value chains, joint ventures, clusters, industrial parks and business incubators.
- 15) To promote exports and use government procurement to enlarge markets for locally produced goods in order to benefit from increasing returns, more productive employment and learning space.
- 16) To develop the potential of the informal apprenticeship system and strengthen the institutional capabilities to provide training for advanced technologies, and improved quality and effectiveness of training in order to promote productive transformation in the crafts sector and

informal economy.

- 17) To extend social security to larger groups of the population, including the establishment of national social protection floor policies.
- 18) To commit to formulate and implement these policies through broad-based social dialogue and to improve the quality of governance and public services.
- 19) Improve the promotion of the ratification and implementation in law and practice of labour standards; design innovative schemes for the extension of protection to workers in the informal economy, including through more effective labour inspection systems. Effectively extend representation rights to all vulnerable categories of workers, including rural workers, women, children and indigenous peoples. Pursue time-bound programmes to combat child labour and forced labour.
- 20) Take advantage of ILO technical assistance to help reduce the implementation gap on international labour standards in LDC countries and mainstream international labour standards into DWCPs and UNDAFs with a view to achieving a progressively increasing coverage of each of the strategic objectives.

## Appendix

### What are the Least Developed Countries?

Forty-nine countries are currently designated by the UN as LDCs.<sup>96</sup>

The list of LDCs is reviewed every three years by the United Nations Economic and Social Council (ECOSOC) based on recommendations by the Committee for Development Policy (CDP). Three criteria were used by the CDP in its last review of LDCs in March 2009:<sup>97</sup>

- (a) Low income, based on a three-year average estimate of GNI per capita, of US\$905 for addition to the list, and US\$1,086 for graduation.
- (b) Human asset weakness, based on a composite index comprising undernourishment, child mortality, secondary-school enrolment and adult literacy.
- (c) Economic vulnerability, based on a composite index of agricultural instability, disaster-led homelessness, export instability, export concentration, economic smallness and remoteness.

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<sup>96</sup> These are: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, the Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, the Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, the Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, the United Republic of Tanzania, Vanuatu, Yemen and Zambia.

<sup>97</sup> United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States (UN-OHRLLS).

To be added to the list, a country must satisfy all three criteria. In 2009, the CDP recommended that Equatorial Guinea be graduated from the list of least developed countries (LDCs). Tuvalu and Vanuatu were considered eligible but not recommended for graduation due to doubts about the sustainability of their progress. Kiribati, which had met the criteria for the first time in the 2006 review, was no longer found eligible. Samoa and the Maldives, which were scheduled for graduation in December 2010 and January 2011, respectively, were found to have shown continued positive development progress. However, due to the devastating tsunami that hit the island in 2009, it was decided to postpone Samoa's graduation initially scheduled for December 2010 until 1 January 2014 (text available at: <http://www.unohrlls.org/en/ldc/related/59/>).

**Appendix Table A1: Annual growth rate by sectors, period average (%)**

	GDP			Agriculture, value added			Industry, value added			Manufacturing, value added			Services, value added		
	1999-2003	2004-07	2008-09	1999-2003	2004-07	2008-09	1999-2003	2004-07	2008-09	1999-2003	2004-07	2008-09	1999-2003	2004-07	2008-09
<b>African LDCs*</b>	<b>6.1</b>	<b>7.5</b>	<b>5.6</b>	<b>1.9</b>	<b>5.1</b>	<b>5.4</b>	<b>7.1</b>	<b>13.3</b>	<b>5.0</b>	<b>5.0</b>	<b>8.9</b>	<b>6.6</b>	<b>4.8</b>	<b>10.3</b>	<b>7.7</b>
Angola	5.9	19.8	0.7	12.8	15.8	13.6	6.4	21.0	5.1	10.2	33.8	8.1	1.9	18.3	-9.2
Benin	4.8	3.9	3.8	4.7	..	..	6.7	..	..	5.9	..	..	4.2	..	..
Burkina Faso	5.3	5.1	3.5	6.4	7.1	..	3.7	6.3	..	2.0	4.3	..	6.6	5.4	..
Burundi	1.1	3.2	3.5	-2.0	..	..	-6.2	..	..	..	..	..	..	..	..
Central African Rep.	-1.5	3.3	2.4	1.7	1.4	..	-0.2	5.2	..	0.7	5.8	..	-6.6	4.3	..
Chad	8.3	5.6	-1.6	2.9	..	..	22.1	..	..	..	..	..	..	..	..
Comoros	2.7	2.0	12.3	5.7	-1.2	2.2	4.8	1.7	4.5	4.4	1.0	4.5	-1.3	11.0	..
Congo, Dem. Rep.	-0.1	5.9	2.7	-3.6	2.8	1.5	-0.8	9.9	1.3	-3.2	8.4	..	11.5	11.8	5.9
Djibouti	2.1	4.4	5.0	2.7	3.6	..	3.9	4.5	..	2.7	2.4	..	2.1	0.8	..
Equatorial Guinea	25.8	10.5	-5.4	2.4	8.0	1.5	24.0	10.6	2.2	80.6	44.7	13.3	16.6	12.7	19.8
Eritrea	-1.3	1.0	..	-12.2	23.2	..	1.4	-3.5	..	-2.4	-11.8	..	1.8	-1.3	..
Ethiopia	3.4	11.4	8.7	-0.2	11.3	3.1	6.3	9.9	9.6	3.2	10.6	9.7	6.3	13.6	14.3
Gambia	3.6	6.0	4.6	0.8	1.9	2.1	6.8	9.3	6.1	3.5	..	..	5.3	8.1	6.1
Guinea	3.5	2.4	-0.3	15.4	2.7	-15.4	3.5	5.1	6.6	3.5	4.2	..	-6.0	-2.3	16.5
Guinea-Bissau	-0.7	2.5	3.0	..	..	..	..	..	..	..	..	..	..	..	..
Lesotho	3.8	3.3	0.9	-5.8	-2.4	2.0	11.9	1.4	0.0	21.6	-0.7	-3.3	-2.5	9.1	6.2
Liberia	-2.0	7.5	4.6	..	..	..	..	..	..	..	..	..	..	..	..
Madagascar	1.6	5.3	0.4	1.3	2.3	1.6	1.1	5.4	8.6	2.3	5.5	7.2	0.8	7.0	8.8
Malawi	-0.5	6.4	7.7	-1.0	2.8	4.2	-2.1	8.0	3.5	-4.4	7.5	6.2	-0.1	6.0	6.0
Mali	6.7	5.2	4.3	3.1	5.2	..	7.8	5.4	..	-0.6	2.1	..	5.0	6.6	..
Mauritania	2.8	6.3	-1.1	-4.5	7.1	..	0.5	3.6	..	-10.5	0.2	..	8.6	6.7	..
Mozambique	6.9	8.1	6.3	3.2	8.3	5.2	14.1	6.6	3.9	18.5	2.7	1.9	5.5	9.4	3.8
Niger	3.2	5.5	1.0	2.9	..	..	2.8	..	..	3.7	..	..	3.7	..	..
Rwanda	6.9	7.4	5.3	6.2	2.2	4.7	5.6	9.5	6.0	4.9	6.7	-2.1	8.2	11.3	3.4
Sao Tome and Principe	..	6.1	4.0	..	..	..	..	..	..	..	..	..	..	..	..
Senegal	3.8	4.3	2.2	-0.7	-1.3	3.5	5.2	2.4	0.6	4.4	0.1	0.5	4.1	8.0	-0.2
Sierra Leone	14.3	7.0	4.0	..	..	3.2	..	..	0.0	..	..	..	..	..	4.7
Sudan	6.8	9.2	4.5	2.7	2.6	2.4	15.2	13.6	5.2	2.8	4.0	8.5	7.2	12.2	3.4
Tanzania	6.1	7.1	5.5	4.5	4.5	..	8.4	9.6	..	6.6	8.0	..	5.8	7.1	..
Togo	1.4	2.3	2.5	0.6	..	..	6.3	..	..	12.1	..	..	-0.1	..	..
Uganda	5.9	8.5	7.1	4.1	0.9	1.7	7.5	11.9	7.0	5.1	7.4	8.3	7.5	8.8	7.5
Zambia	4.2	5.9	6.3	0.5	0.7	0.0	7.6	8.9	10.8	5.3	5.0	5.1	4.4	10.0	-2.9

**Appendix Table A1: Annual growth rate by sectors, period average (%) (cont.)**

	GDP			Agriculture, value			Industry, value added			Manufacturing, value			Services, value added		
	1999-2003	2004-07	2008-09	1999-2003	2004-07	2008-09	1999-2003	2004-07	2008-09	1999-2003	2004-07	2008-09	1999-2003	2004-07	2008-09
<b>Asian LDCs*</b>	<b>5.5</b>	<b>9.2</b>	<b>6.1</b>	<b>3.4</b>	<b>4.1</b>	<b>3.7</b>	<b>7.3</b>	<b>8.9</b>	<b>5.9</b>	<b>6.7</b>	<b>8.7</b>	<b>5.8</b>	<b>5.5</b>	<b>6.8</b>	<b>6.2</b>
Afghanistan	..	8.3	18.7	..	5.1	22.1	..	13.1	12.2	..	6.1	15.0	..	8.4	28.6
Bangladesh	5.2	6.3	5.7	3.4	3.9	2.0	6.8	8.8	6.6	5.9	9.6	6.9	5.5	6.6	6.3
Bhutan	8.0	10.9	7.4	3.5	1.1	0.9	11.6	12.5	16.2	3.8	4.3	5.7	8.0	10.6	12.1
Cambodia	8.0	11.4	-1.9	2.7	8.6	2.8	17.6	13.1	0.7	17.8	11.9	-1.5	8.4	11.1	-1.4
Lao PDR	5.9	7.7	6.4	3.6	4.1	..	10.7	12.0	..	9.6	-12.9	..	5.8	8.2	..
Maldives	5.8	6.5	-3.0	5.7	-2.8	-9.2	6.8	7.8	2.0	7.4	2.1	0.1	5.6	7.1	-0.7
Myanmar	12.7	8.6	..	10.6	..	..	..	..	..	..	..	..	..	..	..
Nepal	3.7	3.4	4.7	3.9	2.1	1.1	3.9	3.8	1.8	1.3	2.4	-0.2	3.4	4.0	5.9
Solomon Islands	-4.9	7.7	-2.2	5.1	8.0	-4.3	-16.8	5.9	3.4	-12.9	2.2	0.3	-5.6	8.3	5.1
Timor-Leste	0.5	2.6	1.9	..	..	..	..	..	..	..	..	..	..	..	..
Yemen	4.0	4.0	3.8	1.3	..	..	3.0	..	..	10.8	..	..	5.8	..	..
<b>Island LDCs*</b>	<b>0.6</b>	<b>2.8</b>	<b>1.9</b>	<b>0.2</b>	<b>1.3</b>	<b>-1.2</b>	<b>6.3</b>	<b>4.1</b>	<b>-6.4</b>	<b>6.3</b>	<b>-0.9</b>	<b>-12.7</b>	<b>3.5</b>	<b>4.4</b>	<b>2.4</b>
Haiti	0.0	2.5	2.9	-1.6	2.1	2.6	1.2	2.0	3.2	0.4	1.7	1.8	0.7	2.8	1.4
Kiribati	3.6	0.9	-0.7	0.6	0.7	0.7	-1.6	2.8	-4.4	1.0	7.7	-1.9	3.1	2.0	-2.3
Samoa	5.8	2.9	-5.5	-2.4	0.9	-4.5	9.6	3.3	-6.5	8.8	-2.0	-13.9	6.5	3.0	1.2
Tuvalu	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vanuatu	0.4	6.4	4.0	1.8	1.7	..	-1.1	7.5	..	-0.8	0.4	..	0.8	6.4	..
<b>LDCs</b>	<b>5.7</b>	<b>8.4</b>	<b>5.8</b>	<b>2.8</b>	<b>4.6</b>	<b>2.2</b>	<b>7.4</b>	<b>11.5</b>	<b>5.3</b>	<b>6.2</b>	<b>8.7</b>	<b>6.0</b>	<b>5.1</b>	<b>8.3</b>	<b>4.9</b>

Source: ILO calculations based on World Bank, World Development Indicators database.

\* Aggregates are calculated based on data available. Hence, they may not include all the countries.

**Appendix Table A2: Structure of merchandise exports in LDCs, 2000 and 2008–09**

	Merchandise exports (millions of US\$, constant 2005)			Agricultural raw materials exports (% of merchandise exports)			Food exports (% of merchandise exports)			Fuel exports (% of merchandise exports)			Manufactures exports (% of merchandise exports)			Ores and metals exports (% of merchandise exports)		
	2000	2008	2009	2000	2008	2009	2000	2008	2009	2000	2008	2009	2000	2008	2009	2000	2008	2009
<b>African LDCs</b>	..	..	..	<b>10.8</b>	<b>5.7</b>	..	<b>36.0</b>	<b>20.6</b>	..	<b>17.2</b>	<b>34.5</b>	..	<b>15.5</b>	<b>14.9</b>	..	<b>18.7</b>	<b>23.0</b>	..
Angola	146,214	44,622	25,885	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Benin	451	1,013	863	71.9	44.3*	..	20.7	40.6*	..	0.7*	..	..	7.3	..	..	0.1	..	..
Burkina Faso	243	614	733	59.2	..	60.5	19.1	..	26.8	3.2	..	0	18.4	..	12.1	0	..	0.6
Burundi	73	42	42	7.6	5.8	4.8	91	64.8	67.5	..	1.4	1.9	0.5	18.1	20.6	0.8	9.3	4.8
Central African Rep.	179	127	99	13.1	..	..	10.7	..	..	0.5	..	..	68.2	..	..	7.6	..	..
Chad	217	3,992	2,348	..	0.0*	..	..	..	..	..	..	..	..	..	..	..	..	..
Comoros	..	..	..	0	..	..	88.3	13.8*	..	..	..	..	8.5	6.3*	..	0	..	..
Congo, D.R.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Djibouti	35	57	61	..	..	0	..	..	0.4	..	..	6.5	..	..	90.7	..	..	0.3
Equatorial Guinea	1,518	13,901	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eritrea	..	..	..	9.8	..	..	53.9	..	..	0.0*	..	..	28	..	..	8.3	..	..
Ethiopia	615	843	774	18.7	14.1	11.9	70.6	75.3	77.5	0.0*	0	0	9.8	9	8.7	0.9	0.6	0.8
Gambia	24	12	13	1.2	4.2	1	80.9	59.6	53	0.1	0.5	0	17	20.9	39.1	0.2	14.9	6.8
Guinea	..	1,134	815	3	4.9	..	3.1	2.5	..	0	1.5	..	30.2	31.9	..	63.4	59.2	..
Guinea-Bissau	67	106	99	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lesotho	308	696	552	0.1	..	..	4.7	..	..	0.0	..	..	94.9	..	..	0	..	..
Liberia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Madagascar	1,361	975	784	3	2.8	5.2	38.3	21	28.8	3.8	5.8	4.9	52.2	66.6	57.2	2.1	3.2	3
Malawi	752	621	634	2.9	4.1	3.8	89.2	85.8	86.6	0.2	0	0.1	7.4	10	8.5	0.2	0	0.8
Mali	612	1,761	1,828	90.8	42.4	..	4.1	28.1	..	0	6	..	4.7	21.8	..	0.3	0.8	..
Mauritania	502	1,461	1,096	0	0	..	20.8	12.5	..	..	21.7	..	0	0	..	45.7	59.9	..
Mozambique	635	1,963	1,539	11.3	3.5	3.1	41.7	14.7	23.3	21	10.9	17.5	6.7	6.1	11.7	17.3	57.3	3.9
Niger	321	790	774	3.3	3.7	..	43.5	18.3	..	1.6	1.9	..	9.4	6.6	..	40.7	68.5	..
Rwanda	72	191	127	..	1.3	1.7	57.0*	66.5	42.3	0.0*	0	0.1	3.0*	4.1	19.4	11.8*	28.1	31.9
Sao Tome and Principe	..	1	..	0.1	0.5	0.7	96.9	92.5	92.4	..	0	0	2.6	7	3	0	0	0
Senegal	991	2,003	1,927	1.7	1.6	1.1	52.4	20.6	29.5	14	34.3	24	26.9	39.2	41.3	4.8	4.3	3.4
Sierra Leone	..	168	165	0.7	..	..	18.9	..	..	..	..	..	9.7	..	..	1.4	..	..
Somalia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sudan	2,602	8,821	5,323	4.9	1.4	1.4	17.3	2.9	5.6	69.3	94.4	92.1	7.9	0.4	0.4	0.5	0.7	0.3
Tanzania	941	2,398	2,181	13.4	9.3	9.8	66.2	37.4	35.5	0.1	2.9	1	19.6	31	24.6	0.5	16.8	24.6
Togo	413	802	700	23.4	9.3*	..	19.6	15.7*	..	0.6	0.0*	..	30.8	62.2*	..	25.5	12.8*	..
Uganda	571	2,126	1,729	15	5.8	..	71.2	63	..	5.7	1.3	..	3.1	27.4	..	5	2.2	..
Zambia	2,244	3,759	2,803	4.4	1.1	1.4	9.4	5.6	7.5	1.1	0.7	0.9	10.7	6.7	8.4	74.1	85.4	81.1

**Appendix Table A2: Structure of merchandise exports in LDCs, 2000 and. 2008–09 (cont.)**

	Merchandise Exports (millions of USD, constant 2005)			Agricultural raw materials exports (% of merchandise exports)			Food exports (% of merchandise exports)			Fuel exports (% of merchandise exports)			Manufactures exports (% of merchandise exports)			Ores and metals exports (% of merchandise exports)		
	2000	2008	2009	2000	2008	2009	2000	2008	2009	2000	2008	2009	2000	2008	2009	2000	2008	2009
<b>Asian LDCs</b>	..	..	..	1.6	2.6	..	6.6	6.5	..	0.7	2.6	..	90.8	87.3	..	0.0	0.9	..
Afghanistan	..	364	434	..	5	7.6	..	52.5	54.7	..	..	..	..	34.6	18	..	..	0.1
Bangladesh	8,316	12,116	11,279	1.4	3.1*	..	7.6	6.5*	..	0.2	1.6*	..	90.5	88.3*	..	0	0.4*	..
Bhutan	123	434	397	..	0	0.1	13.3*	48.3	6.1	41.9*	48.9	42.5	39.9*	1.4	41.1	3.1*	1.3	10.2
Cambodia	1,594	3,051	2,960	2.9	0.9	..	1	0.7	..	0	0	..	96.1	95.5	..	0	2.8	..
Lao PDR	538	903	782	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Maldives	..	265	130	0	0	..	53.7	98.4	..	..	0	..	46.2	0	..	0.1	1.6	..
Myanmar	4,889	3,377	3,219	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nepal	988	746	575	0.5	..	2.9	9.9	..	25.1	0.0*	..	0	66.7	..	66.5	0.2	..	5.5
Solomon Islands	102	150	109	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Timor-Leste	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Yemen	..	..	..	0.4	0.1	0.2	2.2	5.3	5.7	96.9	92.4	92.2	0.3	2.1	1.7	0.1	0.1	0.1
<b>Island LDCs</b>	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Haiti	790	338	407	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kiribati	..	..	..	..	..	..	91.5*	..	..	..	..	..	0.0*	..	..	0.0*	..	..
Samoa	19	9	9	0.4	0.1	0.4	..	14.3	21.4	..	0.2	0.1	..	83.6	69.6	..	0.1	0.2
Tuvalu	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Vanuatu	29	51	..	14.9	1.7*	..	76.8	61.5*	..	0	0.1*	..	7.9	8.9*	..	0	0.0*	..
<b>LDCs (Total)</b>	..	..	..	6.8	4.6	..	23.1	15.7	..	9.9	23.2	..	48.6	40.4	..	10.5	15.2	..

Source: World Bank, World Development Indicators; ILO calculations.

Notes:

- 1) \* Refers to the value of the previous (or following) year.
- 2) Calculation of aggregates for African LDCs is based on the 16 countries for which data are available: Burundi, Ethiopia, Gambia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Senegal, Sudan, the United Republic of Tanzania, Togo, Uganda, Zambia.
- 3) Calculation of aggregates for Asian LDCs is based on the three countries for which data are available: Bangladesh, Bhutan, Cambodia.
- 4) Total LDCs include Vanuatu in addition to the countries listed above.

**Appendix Table A3: Value-added sectoral shares in LDCs by regions (per cent of GDP)**

		2000	2001	2002	2003	2004	2005	2006	2007	2008
LDCs	Agriculture, value added	32.7	32.6	31.5	30.9	30.4	28.1	27.0	24.9	24.3
	Industry, value added	23.9	23.7	24.2	24.4	24.8	26.6	27.5	28.8	29.1
	Manufacturing, value added	10.4	10.6	11.0	11.0	11.6	11.5	11.8	12.4	12.4
	Services, value added	43.4	43.7	44.4	44.7	44.8	45.3	45.5	46.4	46.6
African LDCs	Agriculture, value added	31.7	32.1	30.3	29.4	27.8	26.9	26.5	25.0	24.0
	Industry, value added	28.6	28.1	29.9	30.5	32.8	35.7	35.9	37.2	38.0
	Manufacturing, value added	7.9	8.3	8.3	8.4	8.2	7.8	7.7	8.1	7.7
	Services, value added	40.6	40.8	40.8	40.9	40.2	38.1	38.2	38.4	38.5
Asian LDCs	Agriculture, value added	28.4	27.0	25.5	24.8	23.9	22.9	22.2	21.9	21.9
	Industry, value added	24.7	25.2	25.5	25.5	25.8	26.1	26.9	27.2	27.1
	Manufacturing, value added	14.7	15.0	15.3	15.3	15.6	15.6	16.1	16.5	16.3
	Services, value added	46.9	47.8	49.0	49.8	50.3	50.9	50.9	50.9	51.0
Island LDCs	Agriculture, value added	21.5	20.7	20.7	19.1	20.1	19.2	18.2	18.6	17.8
	Industry, value added	17.9	17.7	18.4	18.9	18.6	18.5	18.3	18.3	19.0
	Manufacturing, value added	9.0	9.8	10.1	10.8	9.9	9.6	8.9	8.1	8.4
	Services, value added	60.6	61.7	61.0	61.9	61.3	62.2	63.4	63.2	63.2

Source: ILO's calculations based on World Bank, World Development Indicators database.

\* African LDCs (19/33): Angola, Central African Republic, Chad, Democratic Republic of the Congo, Equatorial Guinea, Ethiopia, Gambia, Guinea, Lesotho, Liberia, Madagascar, Malawi, Mozambique, Rwanda, Senegal, Sierra Leone, Sudan, Uganda, Zambia.

Asian LDCs (7/11): Bangladesh, Bhutan, Cambodia, the Lao People's Democratic Republic, the Maldives, Nepal, Solomon islands.

Island LDCs (3/5): Kiribati, Samoa, Vanuatu.

**Appendix Table A4: Capital inflows in LDCs by regions (per cent of GDP)**

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
LDC	Gross fixed capital formation	17.8	18.7	18.7	20.1	20.9	21.0	21.3	22.1	22.5	22.0
	Gross domestic savings	13.7	14.5	14.0	15.2	16.6	17.5	18.4	18.5	19.2	17.0
	FDI	2.4	4.0	3.5	4.8	3.3	2.2	3.3	3.2	3.3	3.2
	ODA	7.2	7.8	8.7	8.4	8.9	7.5	7.0	6.9	6.3	..
Africa	Gross fixed capital formation	16.5	17.7	17.5	19.2	20.2	20.0	20.6	21.7	22.9	22.6
	Gross domestic savings	12.8	14.4	14.5	16.4	17.5	18.5	19.7	19.9	20.9	17.9
	FDI	3.7	6.6	5.8	7.8	4.9	3.0	3.7	3.6	3.5	4.2
	ODA	10.0	10.9	12.3	11.3	12.3	9.7	8.7	8.4	7.3	..
Asia	Gross fixed capital formation	20.0	20.7	20.9	21.8	22.4	22.8	22.6	23.2	22.2	21.1
	Gross domestic savings	16.6	16.1	14.4	14.5	16.4	17.3	17.7	17.4	17.5	16.7
	FDI	0.7	0.6	0.5	0.4	0.9	1.0	2.5	2.5	2.8	1.3
	ODA	3.8	3.8	3.8	3.9	3.4	3.3	3.1	3.2	3.4	..
Island	Gross fixed capital formation	14.1	13.7	13.7	14.0	14.0	14.8	15.2	15.0	16.2	15.7
	Gross domestic savings	-9.1	-9.2	-9.0	-9.4	-9.6	-13.6	-12.2	-10.2	-10.4	-11.2
	FDI	1.2	0.9	0.9	1.4	1.0	0.7	4.0	1.5	1.0	0.9
	ODA	7.0	6.3	6.3	8.4	8.5	10.6	12.0	11.5	13.8	..

Source: UN Statistics, National Accounts Main Aggregates; World Bank, World Development Indicators.

**Appendix Table A5: Poverty rate (US\$1.25 a day)**

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>African LDCs</b>																	
Angola										54.3							
Benin													47.3				
Burkina Faso				71.2				70.0					56.5				
Burundi		84.2						86.4								81.3	
Central African Rep.			82.8										62.4				
Chad													61.9				
Comoros														46.1			
Congo, D.R.																59.2	
Djibouti						4.8						18.8					
Ethiopia					60.5					55.6					39.0		
Gambia								66.7					34.3				
Guinea-Bissau	41.3		52.1									48.8					
Guinea	92.6			36.8									70.1				
Lesotho			56.4		47.6								43.4				
Liberia																	83.7
Madagascar			72.5				72.0		82.3		76.3				67.8		
Malawi								83.1						73.9			
Mali				86.1							61.2					51.4	
Mauritania			42.8			23.4				21.2							
Mozambique							81.3						74.7				
Niger		72.8		78.2											65.9		
Rwanda										76.6							
Senegal	65.8				54.1						44.2				33.5		
Sierra Leone													53.4				
Tanzania		72.6								88.5							
Togo																	38.7
Uganda		70.0				64.4			60.5			57.4			51.5		
Zambia	62.8		65.3			62.1		55.4					64.6	64.3			
<b>Asian LDCs</b>																	
Bangladesh		52.7				49.6				56.1					50.5		
Bhutan													26.2				
Cambodia				48.6										40.2			
Lao PDR		55.7					49.3					44.0					
Nepal						68.4								55.1			
Timor-Leste										52.9							
Yemen		4.5						12.9							17.5		
<b>Island LDCs</b>																	
Haiti											54.9						

Source: World Bank PovcalNet Online Database, 2010.

**Appendix Table A6: Output per worker (constant 2000 US\$)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Average annual change	
											2000-08	2008-09
<b>LDCs</b>	<b>693</b>	<b>712</b>	<b>728</b>	<b>751</b>	<b>787</b>	<b>826</b>	<b>865</b>	<b>914</b>	<b>946</b>	<b>954</b>	<b>4.0</b>	<b>0.8</b>
<b>Asian LDCs</b>	<b>757</b>	<b>782</b>	<b>806</b>	<b>847</b>	<b>892</b>	<b>941</b>	<b>994</b>	<b>1,051</b>	<b>1,079</b>	<b>1,091</b>	<b>4.5</b>	<b>1.2</b>
<b>African LDCs</b>	<b>633</b>	<b>650</b>	<b>662</b>	<b>673</b>	<b>703</b>	<b>737</b>	<b>768</b>	<b>813</b>	<b>850</b>	<b>855</b>	<b>3.8</b>	<b>0.5</b>
Developed Economies & European Union	55,430	55,847	56,707	57,371	58,621	59,337	59,955	60,522	60,346	59,594	1.1	-1.2
Central & South Eastern Europe (non-EU) & CIS	4,517	4,492	4,688	5,016	5,374	5,666	6,018	6,304	6,455	6,142	4.6	-4.8
East Asia	2,599	2,730	2,881	3,068	3,312	3,594	3,952	4,382	4,709	4,994	7.7	6.1
South East Asia & the Pacific	2,557	2,569	2,656	2,763	2,899	3,040	3,166	3,291	3,347	3,316	3.4	-0.9
South Asia	1,222	1,244	1,256	1,313	1,384	1,471	1,559	1,660	1,698	1,778	4.2	4.7
Latin America & the Caribbean	10,365	10,260	9,996	10,027	10,250	10,425	10,695	11,070	11,264	11,001	1.0	-2.3
Middle East	11,318	11,219	11,186	11,511	11,825	12,066	12,306	12,650	13,097	12,905	1.8	-1.5
North Africa	5,132	5,127	5,113	5,230	5,245	5,359	5,469	5,628	5,746	5,838	1.4	1.6
Sub-Saharan Africa	1,467	1,470	1,475	1,493	1,534	1,575	1,611	1,661	1,691	1,664	1.8	-1.6

Source: World Bank, World Development Indicators, 2010; ILO, Trends Econometric Models, October 2010

**Appendix Table A7: Manufacturing as a percentage of GDP in LDCs (1980–2009)**

Manufacturing	% of GDP				Average growth (%)		
	1980	1990	2000	2009	1980-94	1995-2004	2005-09
Afghanistan	22.30	21.12	17.62	17.69	-11.27	19.05	15.19
Angola	9.40	4.26	3.59	3.74	-4.85	6.88	13.19
Bangladesh	15.03	13.12	15.43	17.82	3.69	5.99	8.39
Benin	6.24	7.38	8.63	7.81	6.37	4.85	1.67
Bhutan	3.34	6.54	7.81	8.27	14.17	5.61	11.97
Burkina Faso	13.49	13.46	11.56	13.33	2.01	8.28	3.14
Burundi	5.20	10.24	10.43	9.74	7.45	1.55	0.56
Cambodia	7.40	7.62	15.34	19.76	5.44	18.68	7.15
Central African Republic	9.98	10.92	8.88	5.84	0.70	-1.44	1.53
Chad	7.22	11.80	7.88	6.28	5.20	3.84	-0.51
Comoros	3.52	4.11	4.45	4.14	3.95	1.11	0.96
Congo, D.R.	21.21	15.79	6.76	5.86	-9.82	-1.68	3.52
Djibouti	4.05	3.75	2.68	2.43	-0.17	1.18	4.56
Equatorial Guinea	1.05	1.31	0.34	0.16	4.50	11.28	17.92
Eritrea	..	8.53	11.16	5.85	..	4.26	-5.00
Ethiopia	..	4.94	5.01	4.54	..	3.50	9.93
Gambia	6.39	6.21	5.67	5.48	3.51	2.27	3.76
Guinea	5.65	5.72	6.36	6.41	3.37	3.82	3.16
Guinea-Bissau	11.19	7.58	8.90	11.39	-0.58	4.70	-0.55
Haiti	19.10	15.46	7.21	7.32	-8.42	0.58	1.79
Kiribati	4.25	7.01	4.73	5.42	5.89	1.54	5.79
Lao PDR	3.47	4.38	7.42	9.35	9.73	10.65	11.30
Lesotho	4.82	8.79	12.86	20.06	10.09	12.86	4.64
Liberia	6.89	11.63	0.33	7.24	-14.31	23.77	11.18
Madagascar	17.88	13.73	13.93	14.30	-1.25	3.42	3.04
Malawi	9.89	11.94	9.34	11.28	2.80	-0.14	15.40
Maldives	7.49	8.83	7.66	6.56	12.39	7.78	4.38
Mali	7.14	8.63	10.86	6.15	8.53	3.83	-6.40
Mauritania	7.26	9.58	10.99	6.98	3.30	1.90	9.62
Mozambique	12.86	8.98	11.83	13.62	-3.77	18.46	4.15
Myanmar	9.26	8.79	9.83	12.92	2.21	14.47	9.98
Nepal	4.17	5.75	9.06	6.85	10.45	3.54	0.65
Niger	8.89	7.48	6.41	4.96	-1.07	1.68	-0.99
Rwanda	8.87	9.66	6.86	6.74	-4.11	7.42	5.60
Samoa	18.29	18.20	15.28	9.97	0.15	3.64	-9.82
Sao Tome and Principe	7.13	6.94	6.88	6.58	-0.57	3.02	5.12
Senegal	13.64	16.52	15.70	13.19	3.23	3.45	0.16
Sierra Leone	7.46	4.76	3.62	2.04	3.23	-14.26	2.04
Solomon Islands	7.65	7.62	6.26	5.62	5.51	-5.65	5.58
Somalia	2.63	1.57	2.35	2.42	-4.10	5.89	2.07
Sudan	6.07	6.80	7.20	7.42	2.78	10.78	6.87
Timor-Leste	..	3.30	2.73	2.50	..	-2.30	-1.09
Togo	7.06	9.25	8.55	9.43	1.40	2.55	3.02
Tuvalu	1.83	6.28	2.99	3.59	14.21	3.04	2.52
Uganda	5.53	4.59	7.31	7.06	5.04	8.75	6.65
Tanzania: Mainland	11.59	7.99	8.22	9.46	-0.04	6.60	9.51
Tanzania: Zanzibar	..	6.41	6.80	4.78	..	7.37	1.88
Vanuatu	3.19	5.39	4.76	3.94	8.11	0.27	4.92
Yemen	..	3.73	7.03	7.56	..	13.48	5.72
Zambia	7.61	11.03	11.07	9.95	2.67	4.52	3.24

**Appendix Table A8: Agriculture as a percentage of GDP in LDCs (1980–2009)**

Agriculture	% of GDP				Average growth (%)		
	1980	1990	2000	2009	1980-94	1995-2004	2005-09
Afghanistan	52.14	37.06	59.11	38.66	-2.27	1.13	11.20
Angola	15.51	11.76	7.77	8.12	-5.64	7.72	13.22
Bangladesh	31.42	27.10	23.13	18.63	2.24	3.84	4.33
Benin	26.97	32.09	36.44	35.60	6.17	4.97	4.30
Bhutan	65.46	42.59	28.96	19.92	3.97	2.39	5.17
Burkina Faso	27.21	30.05	36.31	32.67	4.96	5.31	1.69
Burundi	69.32	61.90	45.53	45.46	-0.53	-1.22	3.40
Cambodia	47.11	51.08	39.50	30.14	5.47	2.76	3.90
Central African Republic	50.45	55.75	58.27	58.68	2.13	4.17	5.65
Chad	39.39	24.75	34.99	25.02	4.11	2.37	1.50
Comoros	37.27	40.43	47.71	48.52	2.32	4.47	0.96
Congo, D.R.	29.06	33.54	54.15	42.56	3.70	-3.83	3.84
Djibouti	3.05	3.16	3.66	3.42	3.86	2.96	5.21
Equatorial Guinea	46.27	46.40	10.62	2.11	1.28	3.17	6.22
Eritrea	..	26.30	15.09	24.25	..	-2.73	0.51
Ethiopia	..	53.92	48.68	44.88	..	2.81	10.22
Gambia	33.41	21.36	28.09	27.43	0.34	5.75	5.03
Guinea	26.59	26.11	22.18	24.24	3.07	1.79	2.93
Guinea-Bissau	29.87	44.86	58.07	43.52	6.48	-2.91	1.52
Haiti	33.69	35.84	29.86	26.82	-0.75	-0.99	0.24
Kiribati	54.39	41.23	26.01	26.55	1.09	-0.48	3.52
Lao PDR	51.22	49.69	42.31	31.51	5.24	4.36	6.66
Lesotho	27.90	17.53	12.61	8.34	-0.91	-0.38	4.21
Liberia	38.95	55.35	72.82	63.72	-13.65	11.30	8.03
Madagascar	25.94	28.86	28.29	27.01	1.86	2.01	2.23
Malawi	32.27	29.70	37.64	28.92	0.33	5.23	6.33
Maldives	25.25	14.33	8.43	4.86	4.46	4.24	-10.13
Mali	51.87	50.26	37.81	39.10	3.70	3.53	6.35
Mauritania	34.78	32.98	23.21	18.62	0.38	-4.15	9.05
Mozambique	32.81	36.70	28.48	27.09	0.17	5.37	7.65
Myanmar	60.87	60.70	54.25	46.06	2.16	8.61	9.35
Nepal	44.14	43.81	34.03	33.25	3.81	3.71	2.89
Niger	30.39	35.38	42.89	44.99	2.65	3.84	3.23
Rwanda	49.10	45.97	44.52	35.80	-4.47	8.16	4.86
Samoa	25.49	25.52	18.76	11.33	-0.34	-3.83	-1.44
Sao Tome and Principe	15.28	16.69	21.01	17.24	1.36	3.00	4.23
Senegal	21.88	21.33	19.82	17.73	2.01	1.75	4.90
Sierra Leone	43.95	47.90	58.80	49.87	0.29	1.33	4.36
Solomon Islands	40.98	36.33	21.09	34.48	2.64	-0.92	5.86
Somalia	69.99	74.96	60.89	60.46	-1.29	1.44	2.81
Sudan	35.02	31.65	41.42	31.50	1.48	8.67	5.60
Timor-Leste	..	26.30	25.69	30.06	..	2.07	5.10
Togo	31.90	39.39	40.97	47.09	1.62	2.96	5.24
Tuvalu	11.34	29.94	18.27	17.46	11.20	1.57	1.93
Uganda	52.41	40.67	31.12	22.26	2.24	3.50	3.93
Tanzania: Mainland	29.28	34.59	35.17	27.68	4.35	3.97	3.60
Tanzania: Zanzibar	..	43.61	30.44	27.58	..	5.01	6.87
Vanuatu	22.11	18.20	22.28	21.17	3.85	2.54	3.90
Yemen	..	11.42	10.44	10.26	..	6.34	5.16
Zambia	18.16	21.90	26.49	15.39	1.44	1.26	-2.70

**Appendix Table A9: Development of agricultural production in LDCs**

	<b>Rural population</b>	<b>Agriculture value added</b>	<b>Cereal production</b>	<b>Cereals Yield</b>	<b>Total food production</b>		
<b>Country groupings</b>	Average annual % growth 1990-2005	Per capita average annual % growth 1990-2005	Change in cereal yields over change in rural population, %	Change in cereal production over change in rural population %			
<b><i>Sub-Saharan Africa</i></b>							
<b><i>Resource-rich countries</i></b>							
Angola	0.8	4.6	7.3	4.8	2.1	4	6.5
Chad	2.8	3.9	5.4	1.2	0.8	-1.6	2.6
Guinea	2.2	4.4	4.4	2.6	0.8	0.4	2.2
Sierra Leone	0.9	..	-5.2	-0.1	-2.5	-1	-6.1
Zambia	2.7	3	-0.6	1.3	-0.9	-1.4	-3.3
<b><i>Non-resource-rich coastal/islands</i></b>							
Benin	2.7	5.5	5.1	1.8	2.6	-0.9	2.4
Eritrea	2.2	-1.7	-2.56	-4.5	-2.6	-6.7	-4.76
Madagascar	2.6	1.9	2	1.2	-1.9	-1.4	-0.6
Mozambique	1.3	5.2	10.5	7.7	0.9	6.4	9.2
Senegal	2.2	2.7	1.6	1.6	-1.5	-0.6	-0.6
Tanzania	2.3	3.7	2.2	-0.1	-1.2	-2.4	-0.1
Togo	1.9	3.1	3.6	2.4	-0.4	0.5	1.7
<b><i>Non-resource-rich landlocked</i></b>							
Burkina Faso	2.6	3.6	3.6	2.1	1.3	-0.5	1
Burundi	1.6	-1.7	-0.4	-0.3	-2	-1.9	-2
Central African	1.9	3.9	6.5	1.5	1.6	-0.4	4.6
Congo, D.R.	2.4	-0.1	0.1	-0.2	-4.5	-2.6	-2.3
Ethiopia	1.9	2.4	5.8	0.9	1.8	-1	3.9
Malawi	1.6	6.2	2.6	1.8	3.7	0.2	1
Mali	2.1	2.9	3.2	1.4	-0.3	-0.7	1.1
Niger	3.2	3.2	3.3	2.1	0.5	-1.1	0.1
Rwanda	0.6	4.8	2.8	-1.3	-1	-1.9	2.2
Uganda	3.1	3.9	3	0.6	-0.6	-2.5	-0.1
<b><i>Asia</i></b>							
Bangladesh	1.6	3.2	3.2	2.8	1.2	1.2	1.6
Bhutan							
Cambodia	1.9	3.8	6.0	4.0	1.9	2.1	4.1
Lao PDR	1.8	4.5	5.6	3.5	3.8	1.7	3.8
Myanmar							
Nepal	1.8	2.9	2.7	1.8	0.8	0.0	0.9
Yemen	3.1	5.0	-0.6	1.3	-0.2	-1.8	-3.7
<b><i>Latin America</i></b>							
Haiti	0.5		-0.6	-1.4		-1.9	-1.1

Source: Tables 4.1 and 4.2, UN Statistics, Aggregate National Accounts, 2010; table 4.3, World Bank (2007), "World Development Report 2008, Agriculture for Development", pp. 320-327.

Remark: Data not available for all countries.

**Appendix Table A10: Agricultural output in LDCs**

Country groupings	Cereal production				Total food productio	Meat productio	Net cereal imports
	Production	Yield		Average annual % growth 1990-2005			
	Average annual % growth 1990-2005	Kg per capita 2000–05	Kg per hectare 2003–05	Average annual % growth 1990-2005	Per capita average annual % growth 1990-2004	Kg per capita 2003–05	
<i>Sub-Saharan Africa</i>							
<i>Resource-rich countries</i>							
Angola	7.3	49	583	4.8	2.1	9	..
Chad	5.4	165	741	1.2	0.8	13	..
Guinea	4.4	130	1476	2.6	0.8	6	57
Sierra Leone	-5.2	58	1223	-0.1	-2.5	..	34
Zambia	-0.6	107	1732	1.3	-0.9	..	35
<i>Non-resource-rich coastal</i>							
Benin	5.1	135	1144	1.8	2.6	6	75
Eritrea	-2.6	26	297	-4.5	-2.6	..	78
Ghana	3.6	91	1437	1.5	3.1	8	162
Kenya	0.9	101	1682	-0.1	-0.6	15	132
Madagascar	2	191	2369	1.2	-1.9	16	90
Mozambique	10.5	99	925	7.7	0.9	5	150
Senegal	1.6	115	1089	1.6	-1.5	11	345
South Africa	1.9	274	2882	4.3	-0.2	42	235
Tanzania	2.2	126	1403	-0.1	-1.2	10	122
Togo	3.6	132	1031	2.4	-0.4	6	22
<i>Non-resource-rich landlocked</i>							
Burkina Faso	3.6	263	1040	2.1	1.3	17	52
Burundi	-0.4	38	1324	-0.3	-2	3	11
Central African Republic	6.5	49	1046	1.5	1.6	32	9
Congo, D.R.	0.1	27	772	-0.2	-4.5	4	..
Ethiopia	5.8	157	1213	0.9	1.8	8	248
Malawi	2.6	141	1149	1.8	3.7	5	41
Mali	3.2	245	979	1.4	-0.3	20	50
Niger	3.3	246	409	2.1	0.5	7	92
Rwanda	2.8	39	1029	-1.3	-1	6	10
Uganda	3	87	1559	0.6	-0.6	9	109
Zimbabwe	-3.3	85	673	-3.7	0	16	217
<i>Asia</i>							
Bangladesh	3.2	285	3535	2.8	1.2	3	330
Cambodia	6.0	379	2231	4.0	1.9	16	14
Lao PDR	5.6	490	3648	3.5	3.8	17	..
Nepal	2.7	288	2286	1.8	0.8	10	21.2
Yemen	-2.6	23	740	-1.2	-0.2	12	4.5
<i>Latin America</i>							
Haiti	-0.6	45	824	-1.4	-1.1	12	..

Source: World Bank (2007), "World Development Report 2008, Agriculture for Development", pp. 320-327.

Remark: Data not available for all countries.

**Appendix Table A11: Selected inputs in agriculture**

	<b>Arable and permanent cropland</b>	<b>Agro-chemical inputs</b>
<b>Country groupings</b>	Hectares per capita 2003–05	Fertilizer use, kilograms per hectare of arable land 2003–05
<i>Sub-Saharan Africa</i>		
<i>Resource-rich countries</i>		
Angola	0.3	3
Cameroon	0.9	8
Chad	0.5	..
Guinea	0.2	2
Sierra Leone	0.2	..
Zambia	0.7	..
<i>Non-resource-rich coastal</i>		
Benin	5.2	..
Eritrea	0.2	1
Madagascar	0.3	3
Mozambique	0.3	5
Senegal	0.3	22
Tanzania	0.2	13
Togo	0.8	6
<i>Non-resource-rich landlocked</i>		
Burkina Faso	0.4	7
Burundi	0.2	1
Central African Republic	0.7	..
Congo, D.R.	0.2	..
Ethiopia	0.2	3
Malawi	0.3	23
Mali	0.5	..
Niger	1.2	0
Rwanda	0.2	..
Uganda	0.3	1
<i>Asia</i>		
Bangladesh	0.1	198
Cambodia	0.4	3
Lao PDR	1.1	..
Nepal	0.1	12
Yemen	0.7	..
<i>Latin America</i>		
Haiti	0.2	..

Source: World Bank (2007), "World Development Report 2008, Agriculture for Development", pp. 320-327.

Remark: Data not available for all countries.

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