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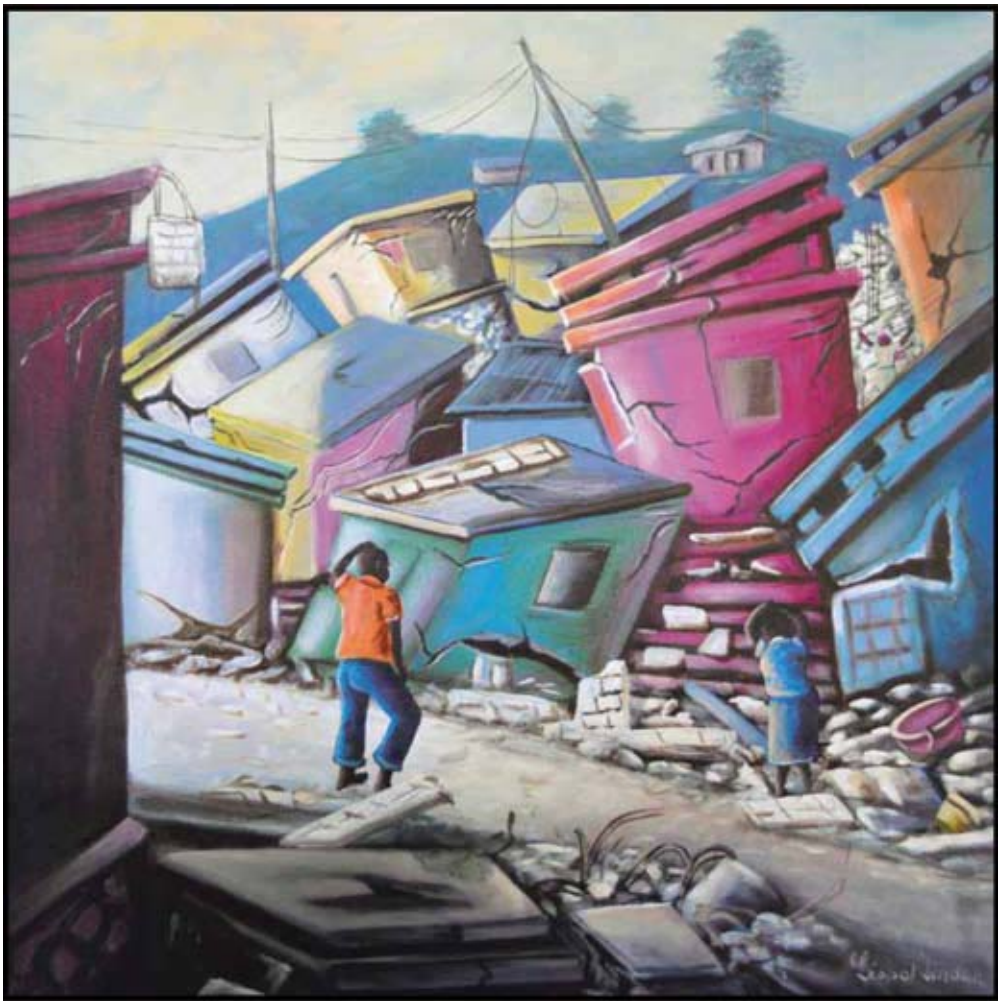
Towards a New International Development Architecture for LDCs

CHAPTER 4

THE COMING DECADE AND AN AGENDA FOR ACTION TO CREATE A NIDA FOR LDCS



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The Coming Decade and an Agenda for Action to Create a NIDA for LDCs

Chapter 4

A. Introduction

This chapter seeks to provide concrete content to the new international development architecture (NIDA) for the LDCs. Its mechanisms should be forward-looking and attuned to possible trends over the coming decade. With this in mind, section B presents some economic scenarios for LDCs in the decade 2011–2020 using the Global Policy Model developed by the United Nations Department of Economic and Social Affairs (UN-DESA), and it presents policy simulations which indicate the feasibility and relative effectiveness of different development strategies. These include development strategies which increase government spending on infrastructure investment, export promotion and the development of productive capacities of the LDCs through the realization of an export-investment nexus. The model is based on historical relationships, but there will certainly be new international factors that will affect the prospects for development and poverty reduction in the LDCs. Section C describes two of these factors: (i) climate change, and (ii) increasing economic relationships between LDCs and other developing countries (ODCs). Finally, section D outlines major elements of an agenda for action to create a NIDA for the LDCs in the areas of finance, trade, commodities, technology and climate change. It recommends a number of specific international actions for reform of the global economic regimes and of South-South development cooperation in ways that are particularly relevant for LDCs and proposes international support mechanisms (ISMs) specifically targeted at LDCs. These elements of a positive agenda to improve the situation of the LDCs could be taken up within the negotiation processes around the Fourth United Nations Conference for LDCs to be held in Istanbul from 29 May to 3 June 2011. The final three chapters of this Report elaborate on this agenda for action in more detail.

NIDA should be forward-looking and attuned to possible trends over the coming decade.

B. Global scenarios for 2011–2020 and policy simulations for LDCs

The Global Policy Model (GPM) has been developed for UN-DESA as a tool for investigating alternative policy scenarios for the world economy. It traces the impacts of trends, shocks and policy responses over short-, medium- and long-term timescales. The model enables globally consistent economic projections for the world economy and for groups of countries within it, and an examination of the impacts of economic shocks, such as delayed recovery from a crisis, as well as the outcomes of some basic macroeconomic policy scenarios. It has been adopted by UNCTAD specifically for the purpose of this Report to provide more detailed information on the LDCs. The model, based on historical data from 1970 to 2008 for 129 countries, provides consistent annual time series of national accounts, balance of payments and external positions, trade by broad commodity groups, interest rates and exchange

New international factors that will affect the prospects for development and poverty reduction in the LDCs are climate change, and increasing economic relations between LDCs and other developing countries.

rates, inflation, government debt, exchange reserves and other bank assets and liabilities, and energy production. For modelling purposes, individual countries are aggregated into blocs (country groups) defined by world regions, income levels and other economic or institutional characteristics.[1]

The Global Policy Model (GPM) presents policy simulations for 2011–2020 which indicate the feasibility and relative effectiveness of different development strategies.

The model has thus far not identified LDCs as a separate group. But for this Report and on the initiative of UNCTAD data were compiled on LDCs and disaggregated into four groups: African energy exporters, Bangladesh, other Asian and Pacific LDCs and other African LDCs plus Haiti, thereby allowing the simulation of LDC-specific policy scenarios (Cripps, 2010).

Economic behaviour in the model is determined by reaction functions representing common or normal adjustment processes that are broadly consistent with recorded annual movements of macroeconomic variables in recent decades. The model is regular in the sense that it uses the same equation structure for each bloc. Values of reaction coefficients or elasticities are in most cases based on panel estimations as the equations are intended to "explain" differences between blocs as well as movements through time. Differences between blocs are reflected in their "fixed effect" factors and attributed to their initial conditions, and to long-term factors including geographical position. More immediate effects of differences or changes in institutions and policies are captured as time-varying residuals. The model is calibrated for each country or bloc with econometric panel regressions using annual data from 1980 to 2008.

The GPM was adapted for the first time to identify LDCs as a separate group; they were then disaggregated into four groups: African energy exporters, Bangladesh, other Asian and Pacific LDCs and other African LDCs plus Haiti.

Any number of scenarios may then be defined and simulated as a basis for examining how changes in institutions, policies, rules, expectations and confidence factors are likely to impact the bloc where they occur and spill over to other blocs and the world economy as a whole. Projections and scenarios can be devised, based on these economic relationships and assumptions, showing how different kinds of policies could affect the variables. Global outcomes and outcomes in specific country groups incorporate the interdependence between different groups, including spillover effects of economic policies and potential benefits from cooperation.

The GPM assumes that economies are typically demand-driven systems in the short term, but supply constraints may become binding, depending on natural resources availability and financing constraints on investment, which may hamper technological progress and the expansion of productive capacities. Countries and country blocs interact via their external accounts and their contribution to the determination of international prices. The main groups of variables defined for each bloc are as follows: (i) national income and population, (ii) government accounts, (iii) private income, expenditure, capital and wealth, (iv) monetary policy and assets and liabilities of the banking system, (v) exchange rates, reserves and external assets and liabilities, (vi) inflation and capacity utilization, (vii) current account of the balance of payments, (viii) trade in goods and services by commodity group, and (ix) production and use of primary energy. Aggregate demand components such as domestic consumption, investment, public expenditure and net exports contribute to income growth, while they impact and are shaped by the current account, international prices, exchange rates, inflation and changes in external assets and liabilities. Therefore, while any source of aggregate demand can be an important factor for GDP growth in the short run, a strong net exports dynamic is key to strengthening external balances and contributing to sustained growth in the longer run. Investment and exports are naturally linked via their interaction on income and aggregate demand. However, alternative policies

Investment and exports are naturally linked in the GPM via their interaction on income and aggregate demand.

that promote investment and exports can have different impacts on supply, the demand structure of trade and international financial positions.

As mentioned, the model allows for dynamic resource constrains to emerge which interact with demand in shaping internal and international prices. International prices, such as the oil price, are driven by supply trends and global demand. In the case of energy, an increasing supply/demand elasticity response is assumed when oil prices increase in real terms beyond the current level. Productive capacity responds to aggregate demand with a time lag. The growth rate is endogenous, and can be pushed up if demand expands at a higher rate without generating unsustainable domestic or external deficits, albeit at the cost of increased inflation while supply adjusts. Implicitly, investment and restructuring allow faster growth of output per person employed in the economy as a whole even if the labour force is static.

The lack of foreign exchange is one of the most binding constraints on LDCs' progressive accumulation of capital and on their current production and consumption.

Table 19 shows the income per capita of these groups of countries in 1970 and 2008, and the scale of the income gap between LDCs and other developing and developed countries, and also the tendency of this gap to widen. Table 20 shows the sources of foreign exchange of the LDCs in 2008, indicating the differences in the extent of integration of each of these groups into the global economy. This highlights the fact that the lack of foreign exchange is one of the most binding constraints on LDCs' progressive accumulation of capital and on their current production activity and consumption expenditure. Sources of foreign exchange are extremely limited in most LDCs. African energy exporters earn $569 per capita per year in foreign exchange, which is comparable to other low-income countries that are not LDCs. But all other LDCs earn little more than $100 per capita per year in foreign exchange. In the case of non-energy African LDCs a major component of foreign exchange earnings in 2008 was foreign capital inflow, without which their foreign exchange earnings would have been less than $90 per capita. Although LDCs are highly commodity-dependent, the scale of commodity exports in

Table 19

Per capita income for high-, middle- and low-income blocs, 1970 and 2008

	2008 population (million)	National income per person ($ PPP)		
		1970	*2008*	*% increase*
World total	**6 746**	**4 351**	**8 561**	**97**
LDCs				
African energy exporters	94	1 343	2 313	72
Bangladesh	160	909	1 276	40
Other Asian LDCs	127	1 033	1 155	12
Other African LDCs	421	907	792	-13
Other low-income blocs				
China	1 315	301	4 911	1 531
South Asia	1 378	733	2 461	236
East Asia low ncome	352	858	2 771	223
Other Africa	329	2 176	2 859	31
Middle-income blocs				
CIS and other	284	5 595	10 315	84
West Asia and North Africa	414	3 457	9 589	177
Latin America	571	5 037	9 229	83
East Asia middle income	184	1 174	5 418	362
High-income blocs				
USA	316	18 434	36 846	100
Europe	524	11 235	24 460	118
Japan	127	12 252	27 418	124
Other developed	148	8 365	26 781	220

Source: Cripps, 2010, based on the database of the UN-DESA Global Policy Model.

Table 20

Sources of foreign exchange, 2008

(Dollars per capita)

	Primary commodities excluding energy	Energy	Manufactures	Services
LDCs				
African energy exporters	11	517	12	29
Bangladesh	8	0	54	7
Other Asian LDCs	26	16	40	24
Other African LDCs	28	3	21	18
Other low-income blocs				
China	26	15	749	86
South Asia	18	17	73	51
East Asia low income	107	89	218	55
Other Africa	91	270	161	61
Middle-income blocs				
CIS and other	175	1 185	467	235
West Asia and North Africa	85	1 500	559	285
Latin America	321	274	555	145
East Asia middle income	308	272	1 227	296
High-income blocs				
USA	428	144	2 516	1 257
Europe	888	633	6 957	2 535
Japan	76	50	3 914	766
Other developed	1 036	1 416	7 878	2 010

Source: Cripps, 2010, based on the database of the UN-DESA Global Policy Model.

per capita terms is actually much lower than for other developing-country groups. No LDC features as a significant exporter of services or primary commodities other than energy. The inflow of income and transfers, including workers' remittances and all types of foreign aid, was between $20 and $50 per capita in 2008. In the same year the foreign exchange receipts per capita of the world's middle-income groups were $1,500 to $2,000 and those of the high-income groups were upwards of $5,000 per capita. The very low level of exports and inward remittances undoubtedly presents a major obstacle for development policies in LDCs.

The very low level of exports and inward remittances undoubtedly presents a major obstacle for development policies in LDCs.

The rest of this section summarizes the results of the GPM for the four groups of LDCs, using a baseline scenario which assumes a rather optimistic view of global economic growth, and also for four different policy scenarios which are designed to achieve accelerated economic growth in the LDCs. A stress test which assumes a delayed recovery from the global financial crisis and recession is also undertaken to determine the sensitivity of the outcomes to slower growth in the global economy.

The baseline projection presents an optimistic view of global developments in the coming decade which should provide an opportunity for substantial improvements in LDCs.

1. Baseline projections

The baseline projection presents an optimistic view of global developments in the coming decade as compared with the protracted recovery expected in most global economic forecasts at present (United Nations, 2010). The optimistic outlook should provide an opportunity for substantial improvements in LDCs. It shows the annual global population growth rate declining slowly to 1 per cent, while annual per capita income grows at around 4 per cent, implying a 50 per cent cumulative increase in the world as a whole over the 2011–2020 decade. Although government debt in the world as a whole is estimated to have increased to 68 per cent of global GDP in 2010, and may increase further in the next year or two, the resumption of fairly rapid economic growth is projected to result in lower fiscal deficits and falling ratios of debt to GDP

thereafter, bringing the global average ratio of government debt to GDP to less than 50 per cent in 2020, without any special measures to cut government spending or increase taxes. The prices of primary commodities and oil and exports of manufactures have risen relative to domestic expenditure, and growth of world trade as a whole is slower than in previous decades. Energy efficiency, as measured by energy use per constant PPP dollars of GDP, is expected to improve by about 3 per cent per year. Total primary energy production (measured in billion tons of oil-equivalent) should increase at the same rate as in the past (i.e. about 2 per cent annually). Prices of oil and primary commodities relative to prices of goods and services in general are projected to rise significantly, by 34 per cent and 23 per cent, respectively, over the decade. World markets for commodities and services are projected as being consistent with what happened before 2000 but not as buoyant as 2000–2008.

Per capita exports of African energy exporters and Bangladesh are projected to grow as fast, or faster, than in other parts of the world, permitting per capita income to grow at an average annual rate of about 5 per cent.

Table 21 summarizes the baseline projections for LDCs, assuming the global context outlined above and development policies similar to those followed in the past. Per capita exports of African energy exporters and Bangladesh are projected to grow as fast, or faster, than in other parts of the world, permitting per capita income to grow at an average annual rate of about 5 per cent, which is significantly faster than the rate of growth expected in high-income countries. For the African energy exporters this reflects projections of higher

Table 21

Baseline projections for LDCs: population, income and exports per capita, 2010–2020

	Values in:				Average annual growth rate (%)		
	2000	*2010*	*2015*	*2020*	*2001–2010*	*2011–2015*	*2016–2020*
African energy exporters							
Population (millions)	76	99	110	121	3	2	2
Income per capita (PPP dollars)	1 309	2 169	2 630	3 363	5	4	5
Exports per capita (dollars)	206	476	651	906	9	7	7
Primary commodities	14	10	14	21	-3	6	9
Energy products	168	428	583	806	10	6	7
Manufactures	17	10	11	10	-5	2	-1
Services	8	28	43	68	13	9	10
Bangladesh							
Population (millions)	141	164	175	184	2	1	1
Income per capita (PPP dollars)	886	1 361	1 791	2 333	4	6	5
Exports per capita (dollars)	45	66	82	100	4	5	4
Primary commodities	4	8	10	13	8	4	6
Energy products	0	0	1	1	...	...	3
Manufactures	36	49	59	67	3	4	3
Services	5	8	13	19	5	9	8
Other Asian LDCs							
Population (millions)	111	132	145	159	2	2	2
Income per capita (PPP dollars)	683	1 228	1 402	1 687	6	3	4
Exports per capita (dollars)	69	92	96	103	3	1	2
Primary commodities	17	25	22	21	4	-2	-1
Energy products	3	10	9	9	11	-2	1
Manufactures	28	34	40	47	2	3	3
Services	20	24	25	26	2	1	1
Other African LDCs							
Population (millions)	337	445	507	571	3	3	2
Income per capita (PPP dollars)	625	820	817	850	3	0	1
Exports per capita (dollars)	37	60	58	59	5	-1	0
Primary commodities	17	23	21	21	3	-1	-1
Energy products	1	3	5	6	11	10	2
Manufactures	8	16	15	17	7	-1	3
Services	11	18	17	15	5	-2	-1

Source: UN-DESA Global Policy Model simulations analysed and reported in Cripps, 2010.

oil prices, while for Bangladesh it reflects benefits from a higher proportion of manufactures in its exports and also external economies associated with the size of its economy. African energy exporters are projected to accumulate a significantly positive net external position, while Bangladesh is expected to balance its external position and reduce government debt to 15 per cent of GDP in 2020. Despite some overall improvements in macroeconomic performance, average national income per capita in 2020, measured at around $3,400 in 2000 PPP for African energy exporters and $2,300 for Bangladesh, will still be a small fraction of the average for the world as a whole ($12,800), and less than one tenth of the average for high-income countries ($35,700).

The baseline projections are less optimistic for other African LDCs.

The baseline projections are less optimistic for both the other LDCs blocs. Exports of primary commodities and services are projected to grow more slowly in LDCs than in other parts of the world, implying that average income levels will lag further behind. Other African LDCs do particularly badly because of weak export performance, high rates of population growth and rising costs of oil imports. The model projects a flat trend for per capita exports from these countries and reduction in current account deficits. In these countries the average per capita income is projected to show little or no increase, remaining at around $850. Government debt is projected to remain at around 70 per cent of GDP in the Other African LDCs, and net external positions are expected to become increasingly negative, reaching nearly 90 per cent of GDP for the Other Asian LDCs and no less than 150 per cent of GDP for the African LDCs.

If sufficient external financing is not available, LDC growth performance in terms of GDP and income per capita would inevitably be worse, and could decline in many very low-income countries.

The projected baseline outcome relies on a possibly optimistic assumption that these countries will be able to borrow increasing amounts in order to cover rising current-account deficits. Adequate access to external financing is critical to the growth strategies of these countries. If such finance is not available, their growth performance in terms of GDP and income per capita would inevitably be worse, and it is possible that further substantial declines in living standards will occur in many very low-income countries in Africa.

2. Policy scenarios

The main objective for LDCs must be to achieve substantially higher, sustainable growth rates that will allow them to catch up at least with other developing countries in coming decades.

The main objective for LDCs must be to achieve substantially higher, sustainable growth rates that will allow them to catch up at least with other developing countries in coming decades. In the model simulations, an ambitious objective is set for accelerated growth of income in each of the four groups of LDCs distinguished here. The objective is a 2 per cent improvement in growth of income per capita during the period 2011–2015 relative to the past decade (2001–2010) and a further 2 per cent acceleration over the period 2016–2020. This would bring the long-term per capita income growth rate to 9.2 per cent per annum for African energy exporters, 8.4 per cent for Bangladesh, 10 per cent for other Asian LDCs and 6.8 per cent for other African LDCs. These objectives for LDCs compare with an expected per capita income growth rate of around 4 per cent in the world as a whole and 2–3 per cent in high-income countries.

These targets require a further and sustained acceleration of economic growth in the LDCs during the coming decade (table 22). One consequence of the achievement of this target would be that informal understanding reached by Heads of State at their retreat at the United Nations International Conference on Financing for Development, held in Monterrey on 18–23 March 2002, could be realized. In their Spirit of Monterrey Declaration, they

Table 22

Accelerated growth targets for LDCs, 2015 and 2020

	Level				Growth rate (% p.a.)		
	Estimated		Assumed		Estimated	Assumed	
	2000	*2010*	*2015*	*2020*	*2001–10*	*2011–15*	*2016–20*
African energy exporter LDCs							
Population (millions)	76	99	110	121	2.6	2.2	1.9
Income per capita (PPP dollars)	1,309	2,169	3,067	4,758	5.2	7.2	9.2
National income (billion PPP dollars)	100	214	337	576	7.9	9.5	11.3
Bangladesh							
Population (millions)	141	164	175	184	1.6	1.3	1
Income per capita (PPP dollars)	886	1,361	1,855	2,776	4.4	6.4	8.4
National income (billion PPP dollars)	125	224	325	511	6	7.7	9.5
Other Asian LDCs							
Population (millions)	111	132	145	159	1.8	1.9	1.9
Income per capita (PPP dollars)	683	1,228	1,809	2,920	6	8	10
National income (billion PPP dollars)	76	162	262	464	7.9	10.1	12.1
Other African LDCs							
Population (millions)	337	445	495	558	2.8	2.1	2.4
Income per capita (PPP dollars)	625	820	1,035	1,434	2.8	4.8	6.8
National income (billion PPP dollars)	211	365	512	800	5.7	7	9.3

UN-DESA Global Policy Model simulations analysed and reported in Cripps, 2010.

stated: "We undertake to assist the world's poorest countries to double the size of their economies within a decade, in order to achieve the MDGs". Although this would represent a breakthrough compared with the period 1971–2000, income per capita in 2020 would still remain below $3,000 in most LDCs and below $1,500 in non-energy African LDCs.

Since the model is macroeconomic in character, relying on internationally available data and covering all regions of the world, it is not feasible to represent government policy instruments individually and explicitly. Instead the model calibrates the potential influence of policy on the observable behaviour of macroeconomic variables. Thus fiscal policy is expected to influence government revenue and expenditures, monetary policy may influence interest rates, credit expansion, external capital flows and exchange rates while exports and imports are subject to the influence of industrial policies and trade policies, including export taxes, tariffs and non-tariff regulation. For each behavioural variable, the model specifies a normal pattern of response to initial conditions and other variables. Departures from the normal pattern, whether caused by policy initiatives or other factors, such as changes in institutions, resources or expectations, appear as residual, add factors in the historical movement of each variable.

The model calibrates the potential influence of policy on the observable behaviour of macroeconomic variables.

For the purposes of scenarios it is assumed that policy innovations may be capable of changing or overriding the normal pattern of behaviour, modelled by the insertion of add factors and calculated to achieve a desired objective or follow a particular rule. The scope for policy changes to modify behaviour is limited by constraining calculated add factors to remain within bounds set by observed volatility of historical residuals for the variable and country group.

For the purposes of scenarios it is assumed that policy innovations may be capable of changing or overriding the normal pattern of behaviour.

Simulations are calculated for four different types of policies which could be chosen by the LDCs as a means of improving living standards and accelerating economic growth. These are:

(i) *Accelerated growth of government spending*: Government spending on goods and services will be increased steadily over a medium- or long-term horizon at a pace that is the same as the long-term target growth rate of GDP.

Four different types of policies which could be chosen by the LDCs are (i) Accelerated growth of government spending; (ii) Accelerated infrastructure investment; (iii) Export expansion and diversification; and (iv) Promotion of an export-investment nexus.

(ii) *Accelerated infrastructure investment*: Government spending on goods and services will be increased steadily, but this will be complemented by increased investment by private firms, State enterprises and households and will focus on social and physical infrastructure, stimulating production for the domestic market and improving export performance. Typical instruments for achieving higher investment include industrial policies, credit and tax incentives. Investment spending will be encouraged to grow slightly faster than the long-term target growth rate of GDP.

(iii) *Export expansion and diversification*: Improved services and infrastructure will contribute to a stronger export performance. Industrial and trade policies will focus on achieving accelerated growth of exports in all sectors with a target annual growth rate of total exports that is 3 per cent higher than the target annual growth rate of GDP. Simulations assume a variety of incentives applied across the range of export industries, including non-oil primary products, energy, manufactures and services.

(iv) *Promotion of an export-investment nexus*: This is to be achieved through a combination of the other policies. A combination of infrastructure development and export expansion policies represents a more balanced policy package that should complement the promotion of dynamic sources of demand, improvement of external sustainability and the creation of productive linkages and economies of scale, in addition to the expansion of domestic industries and services and the creation of effective domestic infrastructure.

The purpose of the simulations is to examine the feasibility, potential benefits and problems associated with each type of policy in quantitative terms. For each type of policy, the simulations indicate the feasibility of the scale of policy intervention, the degree of success in accelerating income growth, and potential side-effects, such as increased deficits or levels of debt, that might make the policy untenable. Each type of policy is simulated separately to give a clearer idea of the implications for different groups of LDCs. There is no presumption that Governments of individual LDCs will or should choose any of the specific strategies. In practice they will select a mix of these and other policies, depending on their judgement of priorities and feasibility. However, the analysis provides a sounder basis for considering changes in international policies, including specific ISMs for LDCs that might improve feasibility or reduce problems associated with each of those policies.

It is feasible to achieve the growth targets through accelerated growth of government spending in all the LDC blocs, except for the group labelled "other African LDCs".

The main results may be summarized as follows (table 23):

(i) It is feasible to achieve the growth targets through accelerated growth of government spending in all the LDC blocs, except other African LDCs. This policy is not projected to result in large increases in the debt-to-GDP ratio, as tax revenues and GDP itself will grow faster in response. However, it will tend to compound external debt problems, especially in the case of non-energy African LDCs. A large programme of external grants to support domestic government spending would be necessary to make this policy viable for most African LDCs.

(ii) More broad-based demand expansion through accelerated growth of government spending and private investment focusing on social and physical infrastructure improvement has the same potential to promote income growth in LDCs, and will improve prospects for exports. This will increase GDP and tax revenues and reduce external deficits and

Table 23
Projected income per capita of LDC blocs according to alternative types of policy, 2010, 2015 and 2020
(PPP dollars)

	2010	2015	2020
African Energy Exporters			
Baseline	**2 169**	**2 630**	**3 363**
Accelerated government spending	2 169	3 081	4 710
Accelerated infrastructural investment	2 169	3 076	4 545
Export expansion and diversification	2 169	2 899	4 015
Export-investment nexus	2 169	3 255	4 866
Bangladesh			
Baseline	**1 361**	**1 791**	**2 333**
Accelerated government spending	1 361	1 873	2 591
Accelerated infrastructural investment	1 361	1 861	2 619
Export expansion and diversification	1 361	1 856	2 597
Export-investment nexus	1 361	1 892	2 738
Other Asian LDCs			
Baseline	**1 228**	**1 402**	**1 687**
Accelerated government spending	1 228	1 569	2 235
Accelerated infrastructural investment	1 228	1 652	2 449
Export expansion and diversification	1 228	1 574	2 266
Export-investment nexus	1 228	1 765	2 837
Other African LDCs			
Baseline	**820**	**817**	**850**
Accelerated government spending	820	970	1 278
Accelerated infrastructural investment	820	1 011	1 373
Export expansion and diversification	820	925	1 210
Export-investment nexus	820	1 054	1 531

Source: UN-DESA Global Policy Model simulations analysed and reported in Cripps, 2010.

the accumulation of external debt, and it may be a beneficial strategy for LDCs that start with good external positions. But this policy alone is unlikely to be able to rescue LDCs with large external debts and weak export prospects from their current predicaments.

Industrial and trade policies designed to promote exports in all sectors have a good chance of reducing external deficits and accelerating GDP growth and tax revenue.

(iii) Industrial and trade policies designed to promote exports in all sectors have a good chance of reducing external deficits and accelerating GDP growth and tax revenue, implying lower ratios of government debt and external liabilities to GDP. The benefits for per capita income may be less than those deriving from domestic demand stimulus, but the risks of a problem of external indebtedness also appear to be much lower, especially for non-energy African LDCs. The simulation for this type of policy shows external liabilities in 2020 being reduced, from over 140 per cent of GDP in the absence of policy initiatives to less than 50 per cent of GDP. There would still be an increase in external debt relative to GDP along the way, especially in the initial years, implying that external financial assistance may still be a necessary condition for the viability of this approach in highly indebted LDCs.

The most effective approach for accelerated growth is likely to be a combination of demand expansion through government spending, infrastructure investment and export promotion.

(iv) Not surprisingly, the most effective approach for accelerated growth of production and income is likely to be a combination of demand expansion through government spending, infrastructure investment and export promotion, which should provide a broad range of development opportunities for public and private institutions in different regions of each country. The impact is projected to be somewhat weaker for African energy exporting LDCs and Bangladesh, which have better baseline development prospects, and stronger for Other Asian and Other African LDCs for which baseline prospects are not so good. Policies of demand expansion and infrastructure investment could boost the annual income growth rate by 0.4–0.8 per cent in Bangladesh and by

over 2 per cent in the other LDC groups, as compared with export promotion alone. Or viewed the other way round, export promotion policies could boost the annual GDP growth rate by 0.3–0.6 per cent in Bangladesh and between 0.5 and 1.5 per cent in the other LDC groups, as compared with policies of demand expansion and infrastructure investment alone. Although such policies entail significant domestic and external costs, the cumulative benefits for production, trade and government revenue generated by a consistent application of domestic policies over the medium term means that the policies will eventually finance themselves as government debt and external debt fall relative to GDP.

The most important functions of international policies to support the LDCs appear to be financial assistance for increasing investment and developing export industries and export promotion, and grants to cover government budget deficits.

In all these scenarios, external constraints are significant. From a macroeconomic perspective, the most important functions of international policies to support the LDCs appear to be financial assistance for increasing investment and developing export industries and export promotion, and grants to cover government budget deficits. From these scenarios, it is clear that a significant improvement in per capita income in LDCs over the coming decade will require substantial external assistance of this kind. Making this external assistance effective will be a clear priority.

3. Impact of delayed recovery on the baseline and policy scenarios

A delayed recovery from recession would substantially reduce income growth up to 2015 in the more dynamic LDCs, but this effect would be largely reversed by 2020.

The "delayed recovery" scenario differs from the baseline scenario because of progressive fiscal policy adjustments in Europe and the United States aimed at reducing budget deficits to 2 per cent and 3 per cent of GDP, respectively, and bringing down the ratio of government debt to GDP. One rationale for such policies is the need to reduce the burden of debt service when interest rates return to more normal levels.

This is projected to have a strongly negative impact on world income, trade, and commodity and oil prices. The negative effects on GDP in the first few years would be sufficient to cause the ratio of government debt to GDP globally to rise from 68 per cent in 2010 to 80 per cent in 2015, before eventually declining to 46 per cent in 2020 – about the same level as in the baseline projection. Although the world economy would broadly recover by 2020, the negative impact on income, trade, and commodity and oil prices, compared with the baseline, is estimated to be in the range of 12–18 per cent.

The negative effects of the delayed recovery would be mitigated if an accelerated government spending policy and accelerated infrastructure investment strategy are adopted.

The impact of a delayed recovery on LDCs is shown in table 24. A delayed recovery from recession would substantially reduce income growth up to 2015 in the more dynamic LDCs, Bangladesh and the energy-exporting African countries, but this effect would be largely reversed by 2020. There should be less impact on income in Other Asian and Other African LDCs over the same period, as their growth is assumed to be less dependent on exports in the model and they should "benefit" from the lower oil prices associated with a weaker global recovery.

Comparing the sensitivity of the different strategies to the delayed recovery, it is clear that the negative effects of the delayed recovery would be mitigated by an accelerated government spending policy and accelerated infrastructure investment strategy. But delayed recovery is projected to reduce the positive effects of export-led growth policies on exports, income per capita and external positions of debtor blocs substantially. The exception is Bangladesh, which, according to the model simulations would be capable of offsetting some deterioration in global conditions by intensifying its export promotion policies.

Table 24

Impact of delayed recovery from global recession on simulated scenarios

(Per cent change in national income per capita)

	Delayed recovery	
	2015	*2020*
African Energy Exporters		
Baseline	**-9**	**-3**
Accelerated government spending	-7	-1
Accelerated infrastructure investment	-5	-1
Export expansion and diversification	-13	-12
Export-investment nexus	-8	-5
Bangladesh		
Baseline	**-5**	**-2**
Accelerated government spending	-4	-1
Accelerated infrastructure investment	-2	0
Export expansion and diversification	0	-1
Export-investment nexus	0	0
Other Asian LDCs		
Baseline	**-1**	**-3**
Accelerated government spending	-1	-2
Accelerated infrastructure investment	0	-1
Export expansion and diversification	-6	-10
Export-investment nexus	-3	-6
Other African LDCs		
Baseline	**-2**	**-8**
Accelerated government spending	-2	-5
Accelerated infrastructure investment	-1	-3
Export expansion and diversification	-7	-16
Export-investment nexus	-4	-8

Source: UN-DESA Global Policy Model simulations analysed and reported in Cripps, 2010.

C. New international factors

The policy scenarios based on historical trends and the outcomes over the coming decade will also be affected by new developments in the international economy.

The policy scenarios based on historical trends and the outcomes over the coming decade will also be affected by new developments in the international economy. This section focuses on two factors which are likely to significantly influence the potential for development and poverty reduction in the LDCs over the coming decade: (i) climate change and (ii) increasing South-South economic relations.

1. Climate change

The scale of the climate change challenge confronting LDCs is enormous, with significant impacts caused by varying temperatures and precipitation as well as natural disasters.

The scale of the climate change challenge confronting LDCs is enormous, with significant impacts caused by varying temperatures and precipitation as well as natural disasters. LDCs' response to this challenge, including reorienting their economies along more climate-resilient and ecologically sustainable paths, will require a significant injection of financial resources for supporting adaptation and mitigation strategies. These resources would have to be additional to those required to meet existing social and economic development needs in order to ensure that past, present and future gains in these areas are not compromised.[2]

On a per capita basis, LDC greenhouse gas emission levels remain far lower than those of the rest of the world.

To prevent an increase in the average global temperature greater than 2ºC above pre-industrial levels will require a reduction in annual global emissions from their current level of 50 billion tons of carbon dioxide (CO_2) — equivalent to 44 billion tons in 2020, 35 billion tons in 2030 and below 20 billion tons by 2050 (i.e. 50 per cent below 1990 levels). For quantified national emission reduction targets to be met and the burden equitably shared will require the European Union (EU), Japan and the United States to achieve emissions reductions of 80 per cent from 1990 levels by 2050. In LDCs, CO_2 emissions during the period 1990–2008 have risen at a faster rate than world levels (WRI *CAIT* database version 7.0). However, on a per capita basis, their greenhouse gas (GHG) emission levels remain far lower than those of the rest of the world (chart 25). Average per capita CO_2 emissions amounted to 0.24 megatons (Mt) in LDCs in 2008 compared with 3.3 Mt in ODCs and a global average of 4.5 Mt. Within the LDC group, Equatorial Guinea has the highest per capita GHG emissions at 7.4 Mt (chart 26).

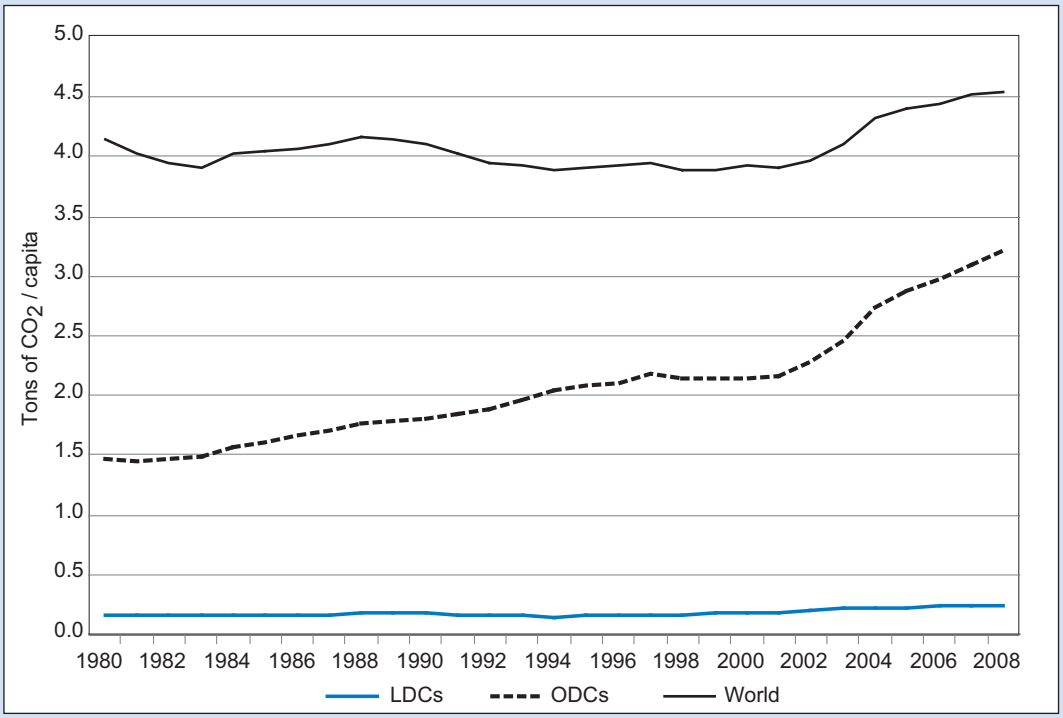
Land-use change and forestry and agriculture account for the largest share of GHG emissions in LDCs.

At the global level, energy accounts for the dominant share (66 per cent) of GHG emissions, whereas in LDCs, land-use change and forestry and agriculture account for the largest share (71 per cent) (chart 27), compared with the global average of 26 per cent. The agricultural sector (crops and livestock) worldwide contributes about 13.5 per cent of global GHG emissions, mostly methane and nitrous oxide, whereas in LDCs, that sector contributes an even larger share: 28 per cent (chart 27), of which 43 per cent emanates from land-use changes and forestry. With the growing demand for meat and dairy products in developing countries, it is likely that GHG emissions from agriculture will increase even further (Kasterine and Vanzetti, 2010). Some estimates suggest that around 89 per cent of GHG mitigation in

Chart 25

Carbon dioxide emissions per capita, 1980–2008

(Tons per capita)

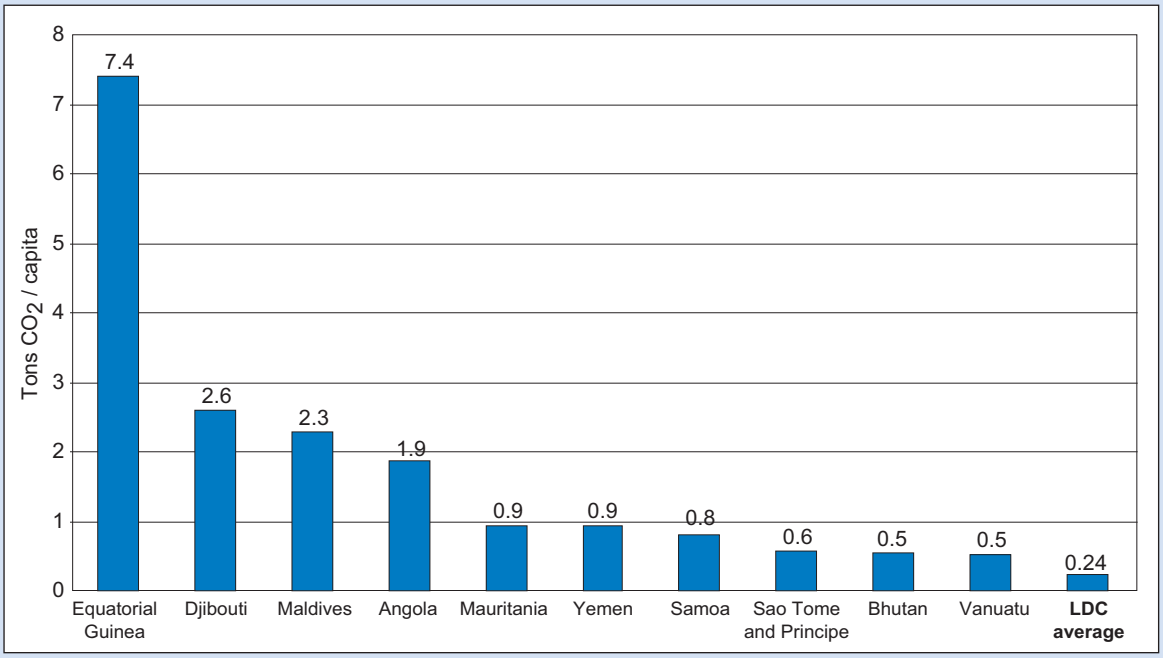


Source: UNCTAD secretariat calculations, based on United States Energy Information Administration, *International Energy Statistics* database (accessed 18 May 2010).

Chart 26

Top 10 per capita GHG emitters among LDCs, 2008

(Tons of CO_2)

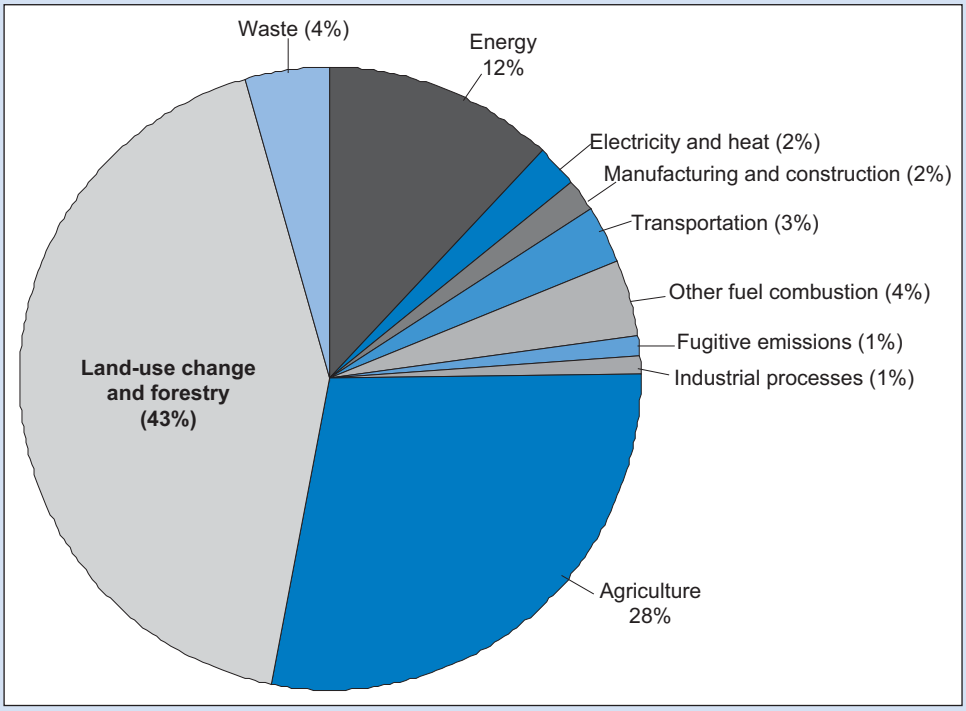


Source: UNCTAD secretariat calculations, based on United States Energy Information Administration, *International Energy Statistics* database (accessed 18 May 2010).
Note: Excludes land-use change.

Chart 27

LDC GHG emissions by sector, 2005

(Per cent of total emissions)



Source: World Resources Institute, *Climate Analysis Indicators Tool* (CAIT), version 7.0.

the agricultural sector is potentially achievable through carbon sequestration (Barker et al., 2007). However, most of this potential mitigation (an estimated 70 per cent) will depend on improved grazing, cropland management and agro-forestry in developing countries, as well as on the carbon price level and the effectiveness of policy instruments (UNFCCC, 2008; FAO, 2007). Additional benefits from carbon sequestration potentially include conservation of agricultural biodiversity and reduced environmental degradation.

Although the LDCs as a group contribute relatively little to global warming, they will be disproportionately affected by changing climatic conditions.

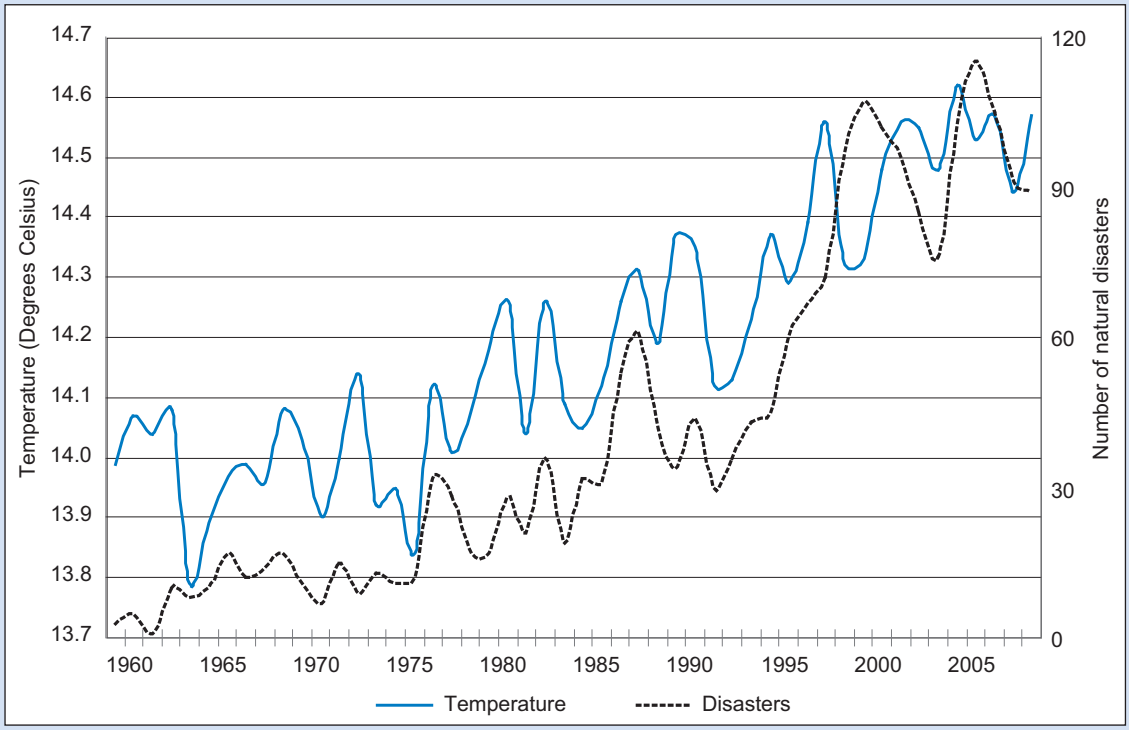
Although the LDCs as a group contribute relatively little to global warming — accounting for less than 1 per cent of the world's total GHG emissions — they will be disproportionately affected by changing climatic conditions. Along with their economic weaknesses, their geographical location and high dependence on natural resources as a source of local livelihoods and national income render them particularly vulnerable to climate change (UN-OHRLLS, 2009: 11–12). It has been estimated, for example, that "for every 1˚C rise in average global temperatures, annual average growth in poor countries could drop by 2–3 percentage points, with no change in the growth performance of rich countries" (UN-DESA, 2009: viii). Taken together, these estimates for global warming and trends in natural disasters mean rising costs for LDCs. Chart 28 shows some evidence of the potential linkages between rising world temperatures and the frequency of natural disasters[3] in LDCs. The number of natural disasters in LDCs escalated from 3 in 1960 to 89 in 2009.

LDCs are expected to bear the greatest burden of adjusting to effects of climate change.

LDCs are at tremendous risk from shifting weather patterns and environmental degradation, and are expected to bear the greatest burden of adjusting to effects of climate change, because they are already challenged by what is known as "multiple vulnerabilities" on account of their low levels

Chart 28

World temperature and natural disasters in LDCs, 1960–2009



Source: Goddard Institute for Space Studies (GISS), *NASA GISS Surface Temperature Analysis* (GISTEMP) (http://data.giss.nasa.gov/gistemp/); and UNCTAD secretariat estimates, based on EM-DAT: The *OFDA/CRED International Disaster* database (www.emdat.net), Université catholique de Louvain, Louvain-La-Neuve.

Note: Sample comprised of 47 LDCs.

of economic and human development (table 25, and UN-DESA, 2009: 71). Clearly, with their lack of social and physical infrastructure, inadequate institutions and narrow economic base, LDCs may be "exposed not just to potentially catastrophic large-scale disasters, but also to a more permanent state of economic stress as a result of higher average temperatures, reduced availability of water sources, more frequent flooding and intensified windstorms" (UN-DESA, 2009: 63, and table 25). If, for example, the potential correlation between hydrological variability (mean rainfall) and key economic variables in LDCs is considered, the implications of climate change for the rural poor and for domestic food security are serious (UNCTAD, 2009a; Couharde, Davis and Generoso, 2010). As a result of climate change, many African LDCs may experience greater rainfall, modifications in rainy season food crop production characteristics, shorter growing seasons and increased floods. For other African LDCs, reduced rainfall may result in longer dry seasons, drought and the unviable agricultural production in areas where subsistence farming might previously have been practiced. Either scenario will adversely affect their economies and food security in the absence of significant adaptation efforts.

The implications of climate change for the rural poor and for domestic food security are serious.

LDCs accounted for 40 per cent of all casualties related to natural disasters during the period 2000–2010. There has been an increase in the frequency and intensity of extreme weather events, with five times as many such incidents occurring from 2000 to 2010 as during the 1970s (table 26). The increase in the number of people affected cannot be explained solely by population growth; over the same period, the LDC population grew approximately 2.7 times, from 314 million to 854 million.

LDCs accounted for 40 per cent of all casualties related to natural disasters during the period 2000–2010.

Currently, over 2.8 billion people reside in areas prone to one or more of the physical manifestations of climate change, namely desertification, droughts, floods, storms and rising sea level (Global Humanitarian Forum, 2009: 15). The regions most at risk from droughts and floods are sub-Saharan Africa and South Asia, where the majority of LDCs are located (chart 29A). The LDC small island developing states (SIDS) and LDCs in Asia are particularly vulnerable to the impact of storms (chart 29A and B). These are also the areas that are least able to cope with the social and economic fallout from climate-related incidents. Sub-Saharan Africa remains the most vulnerable region, with 15 out of 20 of the world's most vulnerable countries located there (Global Humanitarian Forum, 2009: 58). One third of Africa's population lives in drought-prone areas, and it is projected that by 2020 between 70 million and 220 million people in Africa will suffer from the effects of increased water stress resulting from climate change (table 26, and UN-ORHLLS, 2009: 15). As shown in table 27, since 1980, the 10 LDCs to have experienced the highest incidence of extreme weather events reported 244 storms, 347 floods and 78 droughts. Haiti has been disproportionately affected by the impact of natural disasters, especially since the January 2010 earthquake, which, according to official estimates, resulted in 222,570 fatalities (approximately 2 per cent of the Haitian population), 300,000 injured, 1.3 million displaced, 97,294 houses destroyed and 188,383 houses damaged in the Port-au-Prince area and in much of southern Haiti.[4]

The regions most at risk from droughts and floods are sub-Saharan Africa and South Asia, where the majority of LDCs are located.

On average, developing countries experience more damage from climate-related impacts as a percentage of their GDP than developed countries (UNFCCC, 2008: 23). During the period 2000–2010, LDCs recorded economic losses totalling $14.1 billion,[5] although the LDCs as a group accounted for only 2 per cent of global economic losses due to natural disasters. Within the LDC group, Bangladesh and Myanmar suffered the greatest economic losses

Table 25

LDC climate change vulnerabilities and regional impacts

Sub-Saharan Africa (SSA) impacts	Sectoral vulnerabilities
Temperature Since 1960 decadal warming rates of 0.29^{0}C in tropical forests[a] and 0.1 to 0.3^{0}C in southern SSA.[b] Higher warming throughout SSA in all seasons compared to the global average. Drier subtropical regions are likely to become warmer than the more temperate tropical zones.[a] *Precipitation* Predictions suggest a trend of declining precipitation in current semi-arid to arid parts of SSA[a]. Inter annual rainfall variability is large across SSA and for some regions multi-decadal variability is substantial: • annual rainfall in southern SSA has declined; • annual mean rainfall in East SSA has increased; • greater rainfall in the Sahel may be counteracted through evaporation. *Extreme events* There has been an increase in the frequency and intensity of extreme events, particularly droughts and floods in SSA.[c] *Adaptation capacity* SSA has a low adaptive capacity to climate change due to: • Widespread poverty • Weak institutions and low levels of human capital, • Inadequate physical infrastructure and conflicts	*Water* An estimated 72-220 million face severe water shortages by 2020.[a, b] There is likely to be increased water stress in many SSA LDCs: • Lake Chad has decreased in size by 50 percent since 1970; • Scenarios predict decreased rainfall, increased potential evaporative losses (15-25 percent) and diminished runoff (30-40 percent) from the Zambezi River affecting water availability in Angola, DR Congo; Malawi, Mozambique, UR Tanzania and Zambia.[a, d] *Agriculture and food security* Over 60 percent of households rely on agriculture for their livelihoods, heat-related plant stresses are expected to contribute to reduced yields:[f] • Rain-fed crop yields could decline by 50 percent by 2020 in some regions; with net revenues from crops falling by 90 percent.[d, e] • Predicted worsening food insecurity and increased malnutrition.[e] • Fish stocks are likely to decline with rising water temperatures. In some countries production may rise, e.g. a warming of 3-5 per cent in the Gambia River could increase fish production by 13-21 percent.[g] *Health* [d, h] Estimates suggest a possible expansion of climatically suitable areas for malaria in SSA with a 5-7 per cent potential increase (mainly altitudinal), with limited increase in the latitudinal extent of it by 2100. Also likely alteration of spatial and temporal transmission of dengue fever, meningitis and cholera. *Ecosystems and biodiversity* [d, g] Desertification in SSA, especially the Sahel and southern SSA. Deforestation, forest fires and degradation of grasslands. Estimated 25-40 per cent of animal species in SSA national parks will become endangered. *Coastal zones* [d] Threat of inundation in East SSA and degradation of marine ecosystems. Cost of adaptation to rising sea levels could rise to 10 percent of GDP.
Asia impacts	**Sectoral vulnerabilities**
Temperature [d, h] Predicted warming above the global mean in central, eastern, northern and southern Asia. *Precipitation* [d, h] Predicted rise in precipitation in northern, southern and eastern Asia. Less precipitation anticipated in central Asia in summer. Increased reduction in Himalayan and Tibetan Plateau glaciers, making Nepal and Bangladesh prone to increased flooding during the wet season. For Asia, climate models predict an annual mean increase in precipitation of 3 per cent by 2020 and 7 per cent by 2050.[g] *Extreme events* [c] There has been an increase in the frequency and intensity of extreme events, particularly: • increased tropical cyclones droughts and El Nino events; • flooding and landslides; and • longer summer heat waves particularly in East Asia. *Adaptation capacity* [g] Most Asian LDCs adaptive capacity is hindered by: Widespread poverty and income inequality Weak institutions and Limited technology	*Water* In Central, South and Eastern Asia an estimated 100 million[d] people at risk of greater water stress due to decreased freshwater availability. With melting glaciers, greater incidence of floods and a decrease in river flows. *Agriculture and food security* A decline in water supply and soil moisture during the dry season would enhance water stress resulting in: • Lower rice yields negatively impacting agricultural trade and economic growth prospects in Asia.[e] Moreover, by 2050 calorie availability will be lower relative to 2000 levels – thus higher levels of food insecurity;[e] • Increased land degradation and desertification; and • Agricultural productivity may rise in northern Asia due to higher latitudes.[h] *Health* Anticipated rise in heat stress, water-borne diseases (e.g. cholera) and endemic mortality due to diarrheal disease in south and southeast Asia. *Ecosystems and biodiversity* Forest fires may increase in frequency. In Nepal for example, unseasonably high temperatures could threaten the extinction of species of apes, pandas and leopards. *Coastal zones* Coastal zones and low lying delta areas in Bangladesh, Myanmar and Cambodia will be severely affected by rising sea levels and greater frequency of storms.

Table 25 (contd.)

LDC SIDS impacts	Sectoral vulnerabilities
Temperature Predicted warming below the global mean in the Indian ocean, North-South Pacific and Caribbean SIDS. Seasonal ocean surface and island air temperatures have increased from 0.6 to 1.0^{0}C since 1910 in the South Pacific.[h] *Precipitation* [d, h] Increase in annual rainfall in the equatorial Pacific, the northern Indian Ocean and the Maldives. Predicted decline in rainfall in the Indian Ocean and eastern pacific. This is critical for SIDS as most rely on rainwater as the main source of freshwater (potable). *Extreme events* [c] Increase in the frequency and intensity of extreme events, particularly cyclones, storms, floods and coral bleaching. *Adaptation capacity* LDC SIDS have a low adaptive capacity to climate change due to significant structural economic weaknesses, coupled with a high dependence on natural resources as a source of local livelihoods and national income.	*Water* [d, h] Due to the rising sea level and changes in precipitation, water sources are seriously compromised. By 2050 a predicted 10 per cent reduction in average rainfall would result in a 20 per cent reduction in the freshwater lens of Kiribati. *Agriculture and food security* [g, h] The rising sea level, inundation, soil salinization and decline in the freshwater supply will negatively affect agricultural land and food security. Damage from cyclones and rising sea surface temperatures will also negatively impact fisheries (which contributes 10 per cent of GDP in some SIDS). *Health* [d, h] Anticipated rise in heat stress and the occurrence of disease vectors (e.g. malaria, dengue, etc). Ecosystems and biodiversity [d, h] Higher temperatures and CO_2 levels will affect mangroves, sea grasses and coral reefs. A greater frequency of extreme events will retard the development of forest cover as these are slow to regenerate. Forests may be more sustainable on some high latitude islands. *Coastal zones* [d, h] The rising sea level will impact coastal settlements, infrastructure and exacerbate coastal erosion. The long-term habitability of some islands is threatened by inundation and coastal erosion.

Source: (a) Christensen et al. (2007); (b) Kruger and Shongwe (2004); (c) EM-DAT: *OFDA/CRED* database; (d) UNFCCC (2007); (e) IFPRI (2009); (f) UNCTAD (2009a); (g) Huq et al. (2003); (h) UN-OHRLLS (2009).

Table 26

Incidence and total number of people affected by extreme weather events in LDCs, 1970–2010

		Drought	Extreme temperature	Flood	Storm	LDC total
1970–1979	Number of extreme weather events	28	-	46	42	116
	Number of people affected	34 373 000	-	58 873 060	7 076 803	100 322 863
1980–1989	Number of extreme weather events	54	3	93	60	210
	Number of people affected	98 448 767	10	131 813 034	20 616 945	250 878 756
1990–1999	Number of extreme weather events	43	9	167	94	313
	Number of people affected	63 223 526	1 034 000	73 355 634	31 169 955	168 783 115
2000–2010	Number of extreme weather events	58	11	350	126	591
	Number of people affected	83 293 578	266 800	88 222 558	21 213 326	192 996 262

Source: UNCTAD secretariat estimates, based on EM-DAT: *OFDA/CRED International Disaster Database* (www.emdat.net), Université catholique de Louvain, Louvain-La-Neuve (accessed April 2010).
Note: Sample comprised of 47 LDCs (data were unavailable for Afghanistan and Equatorial Guinea).

($5.8 billion and $4.5 billion respectively). Overall, LDC-SIDS are among the most susceptible in the world to natural disasters, as a result of which they suffer significant shocks to their economies (UN-ORHLLS, 2009: 10-11).

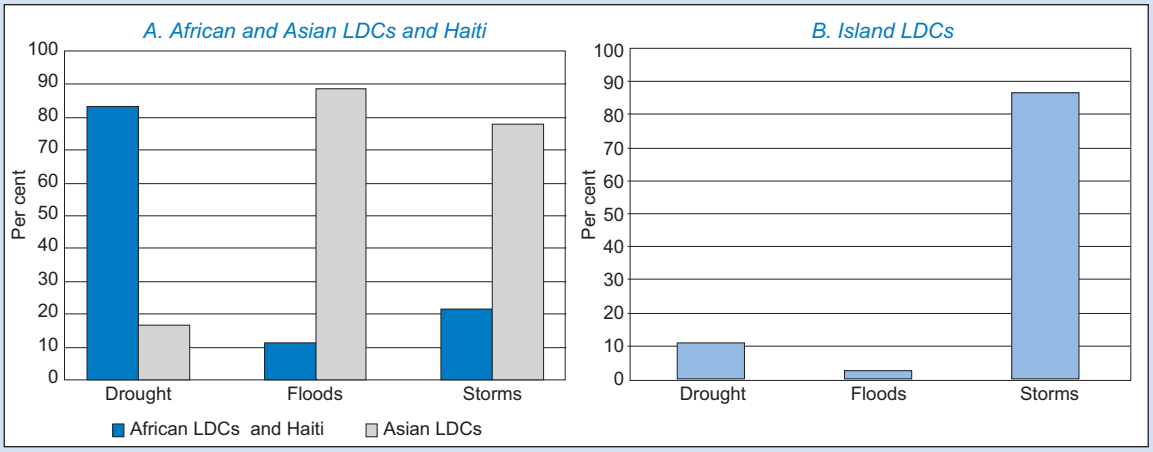
Clearly, LDCs fall short of the requirements for a high adaptive capacity to climate change set out by the Intergovernmental Panel on Climate Change (IPCC) in 2001. These include: a stable and prosperous economy, a high degree of access to technology, well-delineated roles and responsibilities for the implementation of adaptation strategies, systems for dissemination of climate change adaptation information at national, regional and local levels, and equitable access to resources (McCarthy et al, 2001, as quoted in UN-OHRLLS, 2009: 7). The low adaptive capacity of LDCs to climate change will be eroded further if global mitigation actions are not taken with a view to achieving targets within a reasonable time frame, and if countries remain locked into unsustainable development paths, leading to "higher emissions,

LDCs fall short of the requirements for a high adaptive capacity to climate change set out by the Intergovernmental Panel on Climate Change.

Chart 29

Percentage of people in LDCs affected by floods, droughts and storms, 1970–2010

(Per cent)



Source: UNCTAD secretariat estimates based on EM-DAT: *OFDA/CRED International Disaster Database* (www.emdat.net), Université catholique de Louvain, Louvain-La-Neuve (accessed April 2010).

Note: A: Sample comprised of 38 LDCs from Africa and Asia and Haiti. B: Sample comprised of 9 LDC SIDS (excluding Haiti and Madagascar).

Table 27

Top 10 LDCs in terms of incidence of extreme weather events 1980-2010

	Drought	Extreme temperature	Flood	Storm	Total
Bangladesh	5	19	80	142	246
Haiti	7	0	39	29	75
Ethiopia	12	0	47	0	59
Madagascar	5	0	6	43	54
Mozambique	11	0	26	17	54
Nepal	5	4	33	6	48
United Rep. of Tanzania	8	0	31	4	43
Somalia	11	0	30	1	42
Sudan	8	0	29	1	38
Malawi	6	0	26	1	33
Total	**78**	**23**	**347**	**244**	**692**

Source: UNCTAD secretariat estimates, based on EM-DAT: *OFDA/CRED International Disaster Database* (www.emdat.net), Université catholique de Louvain, Louvain-La-Neuve (accessed April 2010).

more climate change impacts and larger investment and financial flows needs for adaptation in the longer term" (UNFCCC, 2009: 2).

Since the 1990s, LDCs' relationships with developing countries in terms of trade, investment, finance, development cooperation and knowledge have been growing significantly.

2. New economic relationships between LDCs and other developing countries

Since the 1990s, the pattern and level of integration of LDCs into the international economy has been changing rapidly. Their relationships with developing countries (i.e. the South) in terms of trade, investment, finance, development cooperation and knowledge have been growing significantly. Consequently, LDCs have been broadening and diversifying their international economic partnerships, in contrast with their previous ties which were mainly with developed countries.

(a) Merchandise trade

(i) Geographic patterns

The most striking development in the geographical distribution of LDCs' trade in goods has been the rapid growth of their participation in South-South trade (chart 30 and table 28).[6] Traditionally, LDCs sourced one third of their imports from developing countries. This share started to increase sharply from 1991, and since 1996 more than half of LDCs' imports have originated in the South, reaching 62 per cent in 2007–2008 (table 28). And between 1990–1991 and 2007–2008 developing countries accounted for 66 per cent of the expansion of LDCs' foreign trade.

The most striking development in the geographical distribution of LDCs' trade in goods has been the rapid growth of their participation in South-South trade.

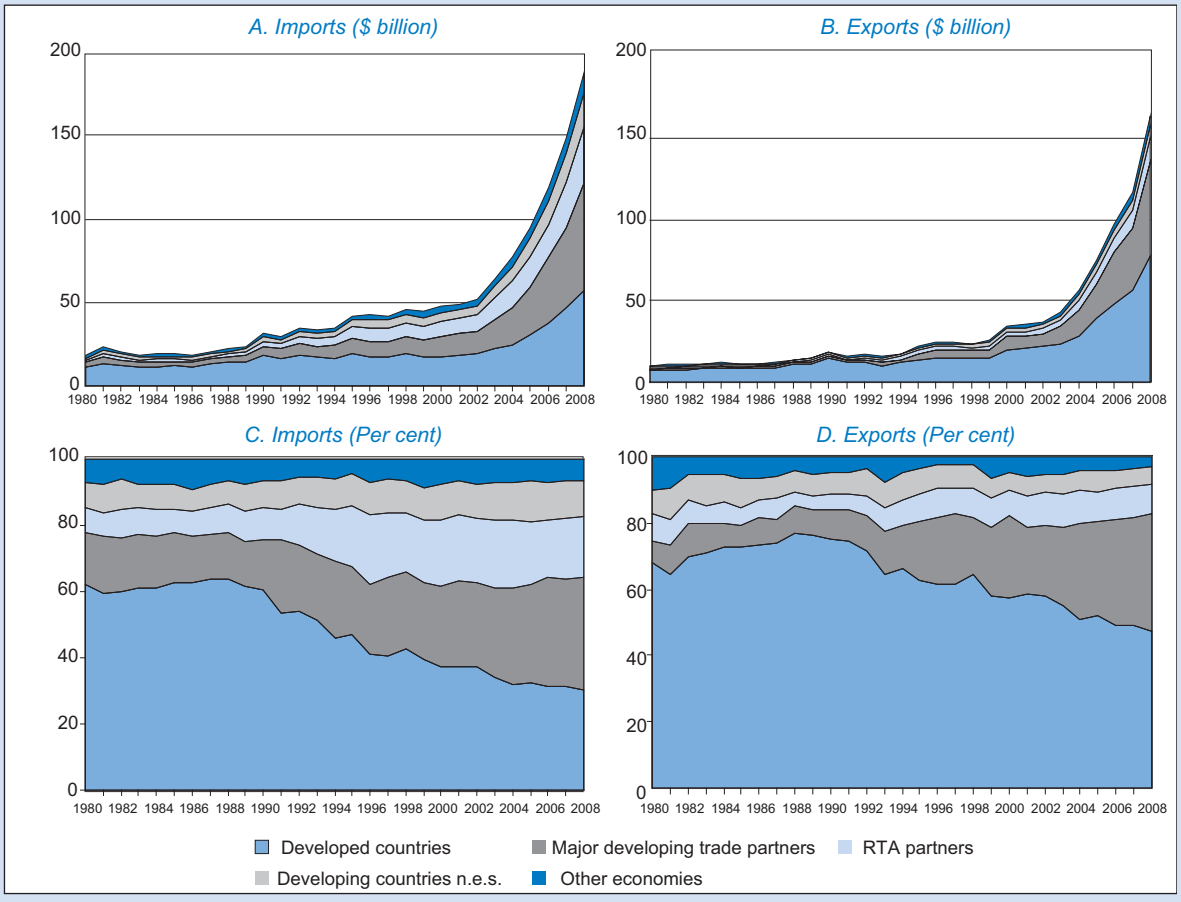
In terms of exports, traditionally developing countries absorbed between one fifth and one fourth of LDCs' total exports. This share started to increase in 1993, and by 2007–2008 developing countries as a group became the largest market for LDC exports, accounting for slightly more than half of their total exports (table 28). The quicker growth of South-South trade of LDCs has meant the decline in importance of trade with developed countries (especially the EU) (chart 30 C and D).

The expansion of LDCs' trade with developing countries is concentrated on their major developing trade partners (MDTPs).

The expansion of LDCs' trade with developing countries is concentrated on their major developing trade partners (MDTPs) and with partners in

Chart 30

LDC trade with major partner groups, 1980–2008



Source: UNCTAD secretariat calculations, based on UNCTAD's *GlobStat* database.

Table 28

LDCs' trade with major partner groups, 1995–1996 and 2007–2008

(Annual averages)

Partner group	LDC imports					LDC exports				
	1995–1996		2007–2008		Annual growth rate (%)	1995–1996		2007–2008		Annual growth rate (%)
	Value ($ million)	*%*	*Value ($ million)*	*%*	*1995–1996 to 2007–2008*	*Value ($ million)*	*%*	*Value ($ million)*	*%*	*1995–1996 to 2007–2008*
Developed countries, including:	13 932	40.0	45 248	33.0	10.3	14 147	58.3	68 378	47.9	14.0
European Union	9 137	26.3	28 844	21.0	10.1	7 064	29.1	28 918	20.2	12.5
United States	1 846	5.3	6 810	5.0	11.5	4 947	20.4	29 245	20.5	16.0
Developing countries, of which:	18 999	54.5	85 104	62.0	13.3	9 223	38.0	71 803	50.3	18.7
Major developing trade partners	6 477	18.6	43 275	31.5	17.1	4 513	18.6	50 347	35.3	22.3
RTA partners	8 682	24.9	24 690	18.0	9.1	3 054	12.6	14 190	9.9	13.7
Developing countries n.e.s.	3 840	11.0	17 139	12.5	13.3	1 656	6.8	7 266	5.1	13.1
Other economies	1 868	5.4	6 911	5.0	11.5	879	3.6	2 645	1.9	9.6
Total	34 798	100	137 263	100	12.1	24 249	100	142 826	100	15.9

Source: UNCTAD secretariat calculations, based on UNCTAD's *GlobStat* database.
Note: For the composition of the country groups, see p. xv-xvi.

regional trade agreements (RTAs). LDCs'10 largest developing-country trade partners in 2007–2008 accounted for three quarters of all South-South trade flows of LDCs and for 42 per cent of LDC total world trade (table 29). All the MDTPs, apart from Brazil and South Africa, are located in Asia. The LDCs' largest trading partner is China, whose importance has grown, especially as an export market. It alone absorbed 23 per cent of LDC exports in 2007–2008, overtaking the EU and the United States to become the largest export destination for LDCs in 2007. In terms of LDC imports, there is a more even distribution between their imports from China and from other MDTPs. LDC imports from the MDTPs have accelerated sharply since the mid-1990s, so that in 2007-2008 the MDTPs accounted for approximately one third of LDC imports (table 28) – almost double the share of the early 1980s. LDC exports to MDTPs grew even more rapidly than imports, and in 2007–2008 the MDTPs accounted for 35 per cent of LDCs' exports (table 28).[7]

All the MDTPs, apart from Brazil and South Africa, are located in Asia.

LDCs strengthened their regional integration efforts as part of their trade liberalization process in the 1990s (UNCTAD, 2004: 182–184), and have since participated in continuing regional integration initiatives.[8] LDC exports to RTA partners have been growing rapidly (table 28), especially since 2000. On the other hand, their imports from RTA partners have expanded at the slowest pace among the large partner groups, and most likely have been displaced by those from MDTPs. Consequently, while the market share of MDTP imports by LDCs grew by 13 percentage points, to 32 per cent, between the mid-1990s and 2007–2008, that of their RTA partners shrank by 7 percentage points, to 18 per cent (table 28).

LDCs strengthened their regional integration efforts as part of their trade liberalization process in the 1990s, and have since participated in continuing regional integration initiatives.

(ii) Regional distribution of LDCs' trade

The trends for the LDCs as a group have been driven by developments in African LDCs. As recently as the mid-1990s, African LDCs' foreign trade was strongly concentrated with developed countries, which accounted for more than half of their total trade and an even higher share of their exports. Since then, however, their trade with MDTPs has been growing considerably faster than their trade with developed countries and RTA partners. While the share of MDTPs in African LDC imports doubled to reach 31 per cent between 1995–1996 and 2007–2008, their export market share tripled to 40 per cent (table 30).

Table 29

LDCs' total trade with major developing trade partners, 2007–2008

(Annual average)

Partner	Value ($ million)	% total trade with developing countries		% total trade with world	
		%	cumulative	%	cumulative
China	39 181	25.0	25.0	14.0	14.0
India	11 607	7.4	32.4	4.1	18.1
South Africa	9 694	6.2	38.5	3.5	21.6
Thailand	8 329	5.3	43.9	3.0	24.6
United Arab Emirates	5 860	3.7	47.6	2.1	26.7
Saudi Arabia	4 718	3.0	50.6	1.7	28.3
Taiwan Province of China	4 380	2.8	53.4	1.6	29.9
Brazil	4 079	2.6	56.0	1.5	31.4
Singapore	3 148	2.0	58.0	1.1	32.5
Republic of Korea	2 626	1.7	59.7	0.9	33.4

Source: UNCTAD secretariat calculations, based on UNCTAD's *GlobStat* database.
Note: Total trade = Imports + Exports.

Table 30

Trade of LDCs by region with major partner groups, 2007–2008

(Per cent summing up by column)

Partner group	Imports				Exports			
	LDCs - Africa	*LDCs - Asia*	*LDC - Americas*	*LDCs - Oceania*	*LDCs - Africa*	*LDCs - Asia*	*LDC - Americas*	*LDCs - Oceania*
Developed countries, including:	38.0	20.9	65.6	57.3	46.8	50.7	81.4	41.2
European Union	27.6	8.8	7.8	2.2	18.0	27.2	6.0	6.3
United States	4.7	3.3	52.6	5.1	21.3	17.5	71.2	1.6
Developing countries, of which:	57.0	73.6	34.1	42.6	51.2	48.0	18.5	57.5
Major developing trade partners	31.1	33.6	9.9	23.8	39.6	22.9	4.8	37.3
RTA partners	15.7	23.4	1.1	11.3	7.0	18.8	0.1	3.1
Developing countries n.e.s.	10.2	16.6	23.1	7.5	4.6	6.3	13.6	17.1
Other economies	4.9	5.5	0.3	0.1	2.1	1.3	0.0	1.3
World	100	100	100	100	100	100	100	100

Source: UNCTAD secretariat calculations, based on UNCTAD's *GlobStat* database.
Note: For the composition of the LDC and partner groups, see p. xv-xvi.

For Asian LDCs, the recent growth of trade with MDTPs has been less dramatic; MDTPs were already their major import sources in the mid-1990s (contrary to all other LDCs), and at present supply one third of Asian LDCs' imports (table 30). Asian LDCs' exports, by contrast, have remained more focused on developed-country markets (mainly the EU member States and the United States), which account for half of their total exports. Despite that, it is the Asian LDCs for which regional trade has been the most important (table 30). Among the major partner groups, exports to RTA partners have expanded the most rapidly since the mid-1990s, to the point that the importance of MDTPs has shrunk somewhat, to 23 per cent.

It is the Asian LDCs for which regional trade has been the most important.

(iii) Product composition

The most important items in the LDC import basket are low, medium and high skill- and technology-intensive manufactures, which account for over half of their total imports.[9] Traditionally, LDCs have sourced these goods mainly from developed countries, but the share of these countries fell to 42 per cent in 2007–2008 from 65 per cent in the mid-1990s. At the same time, with the rise of MDTPs as world-scale exporters of these manufactures, they have now become the second major source for LDCs imports of these manufactures, with a 34 per cent share. The composition of LDC imports from MDTPs is rapidly becoming similar to that of their imports from developed countries.

The composition of LDC imports from MDTPs is rapidly becoming similar to that of their imports from developed countries.

The export basket of LDCs, by contrast, is dominated by commodities. Fuels have constituted a growing share of LDC exports over the past 15 years, due to rising prices and volumes.[10] In the past, these exports had been directed mainly to developed countries. However, since 2000, MDTPs have overtaken developed countries as the leading markets, accounting for 48 per cent of LDC fuel exports, compared with the share of developed countries of 41 per cent in 2007–2008. Fuels account for 81 per cent of LDC exports to MDTPs — much higher than their share of exports to developed countries (52 per cent) (chart 31). In addition to fuels, non-fuel commodities constitute 19 per cent of LDC exports to MDTPs.

MDTPs have overtaken developed countries as the leading markets for fuels, accounting for 48 per cent of LDCs' fuel exports.

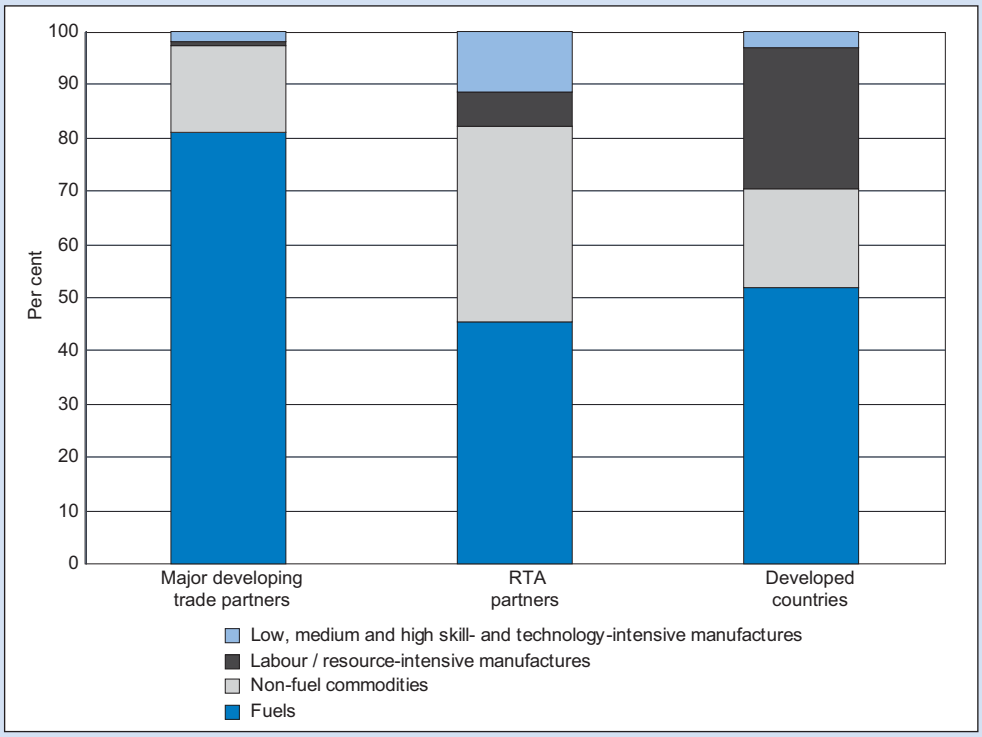
The major difference in the composition of exports of LDCs to developed countries and to MDTPs is in labour- and resource-intensive manufactures. These goods are exported mainly by Asian LDCs and mostly to European and United States markets. In LDC exports to MDTPs, by contrast, these goods are virtually absent, given that China is itself a major worldwide exporter of such goods. LDCs, especially African LDCs, export a higher share of primary commodities to MDTPs than to developed countries.

Asian and African LDCs' trade patterns with MDTPs are similar, but with developed countries are markedly different.

The composition of Asian LDCs' exports to MDTPs and developed countries is quite different from that of African LDCs. The bulk (87 per cent) of Asian LDC exports to the North consists of labour- and resource-intensive manufactures. In exports to MDTPs, on the other hand, Asian LDCs specialize in commodities, which make up 92 per cent of their exports, two thirds of which consist of fuels. Thus Asian and African LDCs' trade patterns with MDTPs are similar, but with developed countries they are markedly different.

Chart 31

Composition of LDC exports, by major trade partner groups, 2007–2008



Source: UNCTAD secretariat calculations, based on UNCTAD's *GlobStat* database.

RTAs offer LDCs opportunities to upgrade and diversify their exports. Regional markets absorb 27 per cent of these countries' exports of low-medium- and high-technology and skill-intensive manufactures. Thus LDCs' exports through such agreements are the most diversified of all their major trading partners (chart 32).

LDCs' exports to RTAs are the most diversified of all their exports to major trading partners.

(b) Foreign direct investment

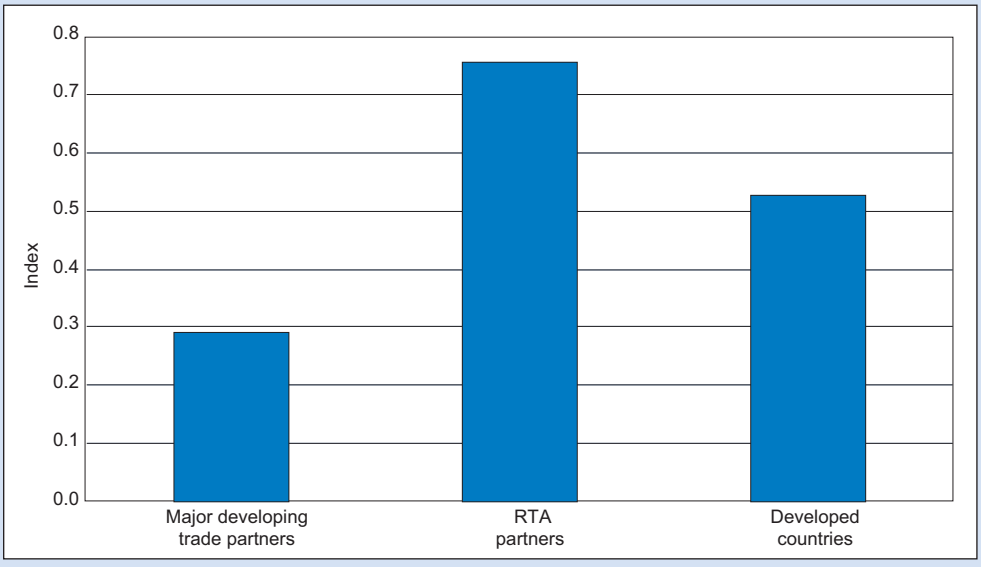
Growing trade linkages of LDCs with the South have been accompanied by increased FDI flows. The share of developing countries in total FDI inflows of LDCs rose from 32 per cent in 1999–2001 to 48 per cent in 2006–2008, while that of developed countries shrank to slightly less than half (chart 33). In Southern Africa, the bulk of outward investment of developing countries takes place regionally. More than two thirds of South Africa's outward FDI is directed to other countries of the Southern African Development Community (SADC). South Africa accounted for over 70 per cent of the total inward FDI of the Democratic Republic of the Congo, Lesotho and Malawi in 1994–2003, and for some 30 per cent of that of Mozambique, the United Republic of Tanzania and Zambia (Rumney and Pingo, 2004). A novel feature of developing-country investment in LDCs since the turn of the century has been the growth of interregional flows. MDTPs have played a major role in this trend; in 2006–2008 they accounted for more than one fifth of total inward FDI in LDCs (chart 33). For instance, the stock of Chinese outward FDI to LDCs rose 10-fold, from $369 million in 2003 to $3,989 million in 2008.

The share of developing countries in total FDI inflows of LDCs rose from 32 per cent in 1999–2001 to 48 per cent in 2006–2008, while that of developed countries shrank to slightly less than half.

Investment in natural-resource-rich African LDCs by developing-country firms has tended to concentrate on the following sectors: oil and gas, mining, energy, and, more recently, agriculture, fisheries and seafood farming. Other sectors targeted by developing-country investors in these LDCs have been construction, infrastructure, and, to a lesser extent, telecoms and finance. Some large-scale projects are undertaken by State-owned transnational corporations (TNCs) (e.g. some natural resource and energy companies from Brazil, China

Chart 32

Index of diversification of LDC exports in bilateral trade with major partner groups, 2007–2008

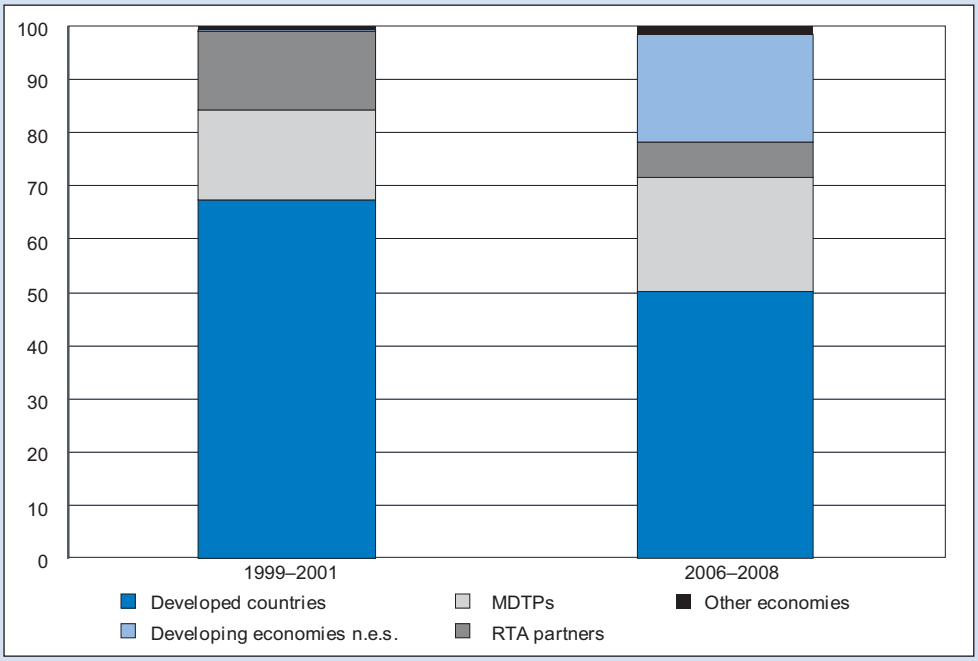


Source: UNCTAD secretariat calculations, based on data from UNCTAD' *GlobStat* database.
Note: The index of diversification is the complement of the Herfindahl-Hirschmann index. It is normalized to obtain values ranging from 0 to 1 (maximum diversification)

Chart 33

Inward FDI in LDCs, by groups of country of origin of investor, 1999–2001 and 2006–2008

(Per cent)



Source: UNCTAD secretariat calculations, based on the UNCTAD FDI/TNC database.

and South Africa). More recently, these FDI flows have started to diversify, with some Chinese and Indian investments in African LDCs in apparel, food processing, retail ventures, commercial real estate and transport, construction and tourism. Part of China's strategic industrial plan in Africa is to establish five preferential trade and industrial zones to facilitate entry of Chinese businesses, including in two LDCs: Ethiopia and Zambia and (Brautigam, Farole and Yiaoyang, 2010).[11]

Developing-country FDI in Asian LDCs has tended to concentrate on light manufacturing and, to a lesser extent, natural resources and telecoms.

Developing-country FDI in Asian LDCs has tended to concentrate on light manufacturing and, to a lesser extent, natural resources and telecoms. The investing companies tend to be mainly private TNCs, primarily from China, India and the countries of the Association of Southeast Asian Nations (ASEAN).

(c) South-South development cooperation

A major aspect of the growing linkages between LDCs and ODCs has been the strengthening of South-South development cooperation.

A major aspect of the growing linkages between LDCs and ODCs has been the strengthening of South-South development cooperation. The project of South-South cooperation dates back to the post-war decolonization period, with the Buenos Aires Plan of Action (1978) marking a milestone in its development. However, developing countries neglected the issue over the two subsequent decades. It was only towards the end of the 1990s that policymakers once again began to give priority to the strengthening of economic relations and flows between developing countries. To this end, a number of developing countries, notably Brazil, China, India, South Africa and Turkey, have sharply increased their development cooperation budgets, established dedicated agencies, initiated new programmes and funds and strengthened existing ones (Ventura-Dias, 2010).

A major characteristic of South-South development cooperation is the sectoral focus: typically, South-South development cooperation is more geared

towards infrastructure and productive sectors than developed-country ODA (table 31). China, in particular, is heavily involved in infrastructure projects in Africa, including roads, airports, ports, power plants, water conservation, telecommunications, mining, agriculture and industry. India has been active in infrastructure projects in Asian LDCs and, more recently, also in Africa. South Africa's Spatial Development Initiatives focus on fostering infrastructure and sustainable industrial activity in areas with the highest rates of poverty and unemployment.

Typically, South-South development cooperation is more geared towards infrastructure and productive sectors than developed-country ODA.

In most cases, the strengthening of South-South development cooperation has accompanied growing trade and investment flows between developing-country donors and beneficiary LDCs. It has often played a catalytic role in leveraging market transactions, such as "natural-resources-for-infrastructure" arrangements, undertaken mainly by China in African countries. China builds infrastructure (e.g. roads, bridges, power stations) in African countries in exchange for long-term contracts ensuring the supply of raw materials (e.g. oil, minerals, agricultural products) in the form of exports to China. In some instances, developing-country Governments are subsidizing (e.g. through preferential credit) their national companies that have trade with or investments in LDCs.

South-South development cooperation has often played a catalytic role in leveraging market transactions.

Technical cooperation is a significant component of South-South development cooperation. It is undertaken through knowledge- and experience-sharing, training and technology transfer. Regular inflows of teachers, medical

Table 31
Main features of Southern development cooperation with LDCs

Main donors	China, India, GCC countries, South Africa, Republic of Korea, Turkey, Brazil
Main recipients	Angola, Sudan, Mozambique, United Rep. of Tanzania, Afghanistan, Bhutan, Nepal, Lao PDR, Haiti
Sectoral focus	Infrastructure (transport, power plants, telecoms), productive sectors (agriculture), social sectors (health, education, poverty)
Modalities	• Mostly concessional loans, some grants • Debt cancellation • Infrastructure-for-natural-resources deals • Mostly tied • Project-based • Technical cooperation • Scholarships • Financial and in-kind (e.g. equipment) contributions
Channelling	• Mostly bilateral • Some through RTA machinery (e.g. SADC, SAARC) • Some through non-OECD multilateral development institutions (e.g. IsDB)
Conditionalities	• No domestic policy conditionality • Disbursements often linked to access to natural resources or purchase of goods and services provided by firms in the country providing support
Delivery	• Simplified preparatory, disbursement and monitoring procedures, greater use of national public financial management procedures • Slightly more timely and predictable than traditional aid
Funding source	• Own funds • Triangulation • Multilateral institutions (e.g. IFIs)
Motivation	Development solidarity, strategic interests, market access, cultural affinities, strive for recognition as important global players
Objectives	Foster trade and investment linkages, secure access to natural resources, political goals, partnership among equals, share development experience, regional stability
Link with commercial flows	Often aid directly related to donor country companies' trade and investment projects / activities in recipient countries
Donor coordination	Limited, mostly project-specific (with other developing- and developed-country donors, e.g. in triangular projects)
Partnership forums	For example, Forum for China-Africa Cooperation (FOCAC), India-Africa Summit, Africa-South America Summit, Turkey-Africa Cooperation Summit
Major development cooperation policy statements	• Yamoussoukro Consensus on South-South Cooperation (2008) • Ministerial Declaration, Ministers of Foreign Affairs of the Group of 77 and China, para.70 (2009)

Source: UNCTAD secretariat, based on United Nations, 2008; Rowlands, 2008; Kragelund, 2010; and own research.

personnel, agricultural experts and engineers have provided core expertise in the fields of education, health, agriculture, environmental conservation and engineering in LDCs.

(d) Development impact of South-South economic relations

The rapidly growing economic relationships between LDCs and ODCs have turned this into an essential partnership, though the ever-increasing linkages between the two present both opportunities and challenges to LDCs. Foremost, the acceleration of economic growth in several developing countries and closer regional integration imply greater diversification of economic and development partnerships for LDCs. The consequent widening of the scope of trade, investment, official finance and knowledge flows contributes to reducing LDCs' vulnerability to external shocks, as it spreads the risks associated with such shocks.

The acceleration of economic growth in several developing countries and closer regional integration imply greater diversification of economic and development partnerships for LDCs.

Among the economic linkages of LDCs with the South, their relationships with MDTPs tend to be quite different from those with regional partners. There are large asymmetries between LDCs and MDTPs in terms of their income, technology, size, financial resources and institutional capabilities. By contrast, such gaps are much smaller between LDCs and their regional partners. Managing these different types of South-South linkages to ensure that both parties mutually benefit thus presents different challenges. From an LDC perspective, South-South economic ties will be particularly beneficial if they directly or indirectly foster capital accumulation, employment, technological learning, diversification and upgrading of output and exports, domestic economic linkages and/or strengthening of national capacities.

Several theoretical models suggest that closer economic integration between initially asymmetric partners can have adverse long-term consequences for the weaker partners.[12] Even if the weaker partner benefits from its stronger partner's greater innovations (e.g. through the import of cheaper goods), its long-term growth rate tends to slow down. More generally, asymmetric relations between agents from the more advanced developing countries (e.g. investors and traders) and agents from the LDCs (e.g. Governments) can result in unbalanced concessions by the weaker partner(s) during negotiations of investment and trade deals. Avoiding this situation requires policy action to redirect some aspects of South-South economic relations, while the already existing positive features need reinforcing. It also points to the importance of regional integration as a key aspect of South-South development cooperation for LDCs.

From an LDC perspective, South-South economic ties will be particularly beneficial if they directly or indirectly foster capital accumulation, employment, technological learning, diversification and upgrading of output and exports, domestic economic linkages and/or strengthening of national capacities.

(i) Economic relations with major developing-country partners

Table 32 provides a summary of the main features of the economic flows between LDCs and their major ODC trade partners that represent opportunities, but also challenges, to the development of productive capacities in the LDCs.

Trade

It is often argued that South-South trade provides an opportunity for developing countries to diversify their foreign trade (e.g. Klinger, 2009; Shirotori and Molina, 2009). Indeed, for LDCs, the sharp rise in their trade with developing countries has contributed not only to their trade expansion but also to the geographical diversification of their trade flows.

Table 32
Impacts on LDCs' development of their economic relations with major developing country partners

Field	Opportunities	Challenges
Trade	Strong expansion of LDC exports and imports Geographic diversification of exports and imports away from traditional partners • diversification of risks related to external demand and supply shocks • increase in variety of imported goods and services Major Southern markets provide strong boost to foreign demand for LDC goods and services (i.e. export surge) For commodity exporters: Southern demand pushes commodity prices upwards Imports of cheap consumer goods benefit consumers and helps reduce poverty	Tends to reinforce LDC specialization in traditional sectors, especially commodities • also in the case of Asian LDCs Higher product concentration of exports to MDTPs than in exports to developed countries or RTA partners Imports from MDTPs can displace intraregional trade (esp. manufactures trade of African RTAs) MDTP exports can displace exports of LDCs in third markets (esp. manufactures and in regional markets) For commodity importers: Southern demand pushes commodity prices upwards Competition from cheap imports could threaten LDC industry and agriculture • adverse impact on domestic output and jobs Preferential market access schemes (including DFQF) as yet typically fail to open market access in sectors where LDCs are most competitive (e.g. food, garments)
FDI	Mostly greenfield investments to develop new activities • contributes to fixed investment (capital accumulation) in LDCs Investment in manufatcuring has strong positive impact on jobs • also FDI in tourism, though to a lesser extent Capital-intensive investment in natural resources can cause overall productivity level to increase • also FDI in services, though to a lesser extent Investment in natural resources and manufatcuring has strong positive impact on exports • also FDI in tourism, though to a lesser extent FDI inflows contribute to close external financing gap of LDCs Allows exploitation of previously untapped natural resources • greater utilization of resources Longer-term commitment thanks to strategic investment in natural-resource sectors	Investment in natural resources and manufacturing reinforces LDC specialization in traditional sectors (commodities and labour-intensive manufacturing) Limited domestic spillover of technology and know-how of investment in mining, agriculture, manufacturing and tourism, which often operate as enclaves • limited job-creating impact, due to capital-intensive operations and/or employment of home country nationals (especially in managerial positions) –except manufacturing and (to some extent) tourism • few backward and forward linkages with the domestic economy of host country • high import content of FDI • little upgrading of domestic productive structure • restricted learning effects by domestic firms and workers Appropriation of mining, oil and agricultural rents can be unfavourable to LDCs' governments • weakens state capacity Distribution of FDI in LDCs very concentrated in a few LDCs Large-scale FDI in LDC agriculture "land grab": • displaces small farmers • jeopardizes domestic food security • tends to accelerate land degradation • can contribute to increased poverty Southern FDI impact so strong in some industries / countries that it has come to dominate these sectors in some LDCs Some footlose investment in manufacturing
Development cooperation	Similarity of economic, social and environmental conditions provides great scope for knowledge-sharing with LDCs • inter alia through technical cooperation Emphasis on infrastructure and productive sectors • helps address major structural shortcomings of LDCs Absence of economic policy conditionality: • preserves LDC policy space • contributes to recipient country's ownership of policies Diversification of aid sources: • widens external funding of LDC economies • increases bargaining power of LDCs vis-à-vis donors • contributes to reducing aid volatility Simpler aid delivery and monitoring procedures place less burden on limited state resources of LDCs	There is not always a match between reipient LDCs' needs and the commercial priorities and interests of southern partners's firms Bilateral relations between donors and individual LDCs (rather than RTAs / RECs or regional organizations): • reinforces unequal power relations between donors and recipients • limits the contribution of development assistance to creating regional synergies Still low volumes of South-South official finance as compared to North-South aid • limits the potential positive impact of South-South cooperation Tied aid is not always the most efficient form of delivering official development finance Focus on loans (vs. grants) contributes to debt accumulation Higher number of donors increases complexity of aid management and delivery
Technology	Technology imported through trade, FDI or development assistance is more adapted to LDC conditions: • lower technology level • more similar labour/capital ratios	

Source: UNCTAD secretariat, based on own research.

Concerning the product composition of their foreign trade with MDTPs, while their imports have become increasingly diversified, their exports have become more concentrated. Imports of cheap manufactures most likely have contributed to improving the purchasing power of LDC consumers, and hence to alleviating poverty (Balat and Porto, 2007; Aguilar and Goldstein, 2009).

Imports of cheap manufactures most likely have contributed to improving the purchasing power of LDC consumers, and hence to alleviating poverty ...

However, the surge of imports from MDTPs has also had a dampening impact on domestic industrial output and on regional trade.[13] The growth of trade with MDTPs has reinforced the commodity specialization of LDCs, both African and Asian. Thus it has not been associated with product diversification of LDC exports towards goods with higher value added and/or higher learning potential. Nevertheless, it is important to understand the economic relations between LDCs and MDTPs in dynamic terms. Looking ahead, there is potential for further growth of LDC processed exports to fast-growing developing countries. The latter have modernizing industries and rapidly increasing middle classes with rising incomes and purchasing power, which increases their demand not only for natural resources, but also for more diversified, non-traditional exports such as processed commodities, light manufactured products, household consumer goods, food and tourism. LDCs have the potential to export these non-traditional goods and services competitively to some of these developing countries.

Foreign direct investment

... but has also had a dampening impact on domestic industrial output and on regional trade.

Inward FDI can have a positive development impact on LDCs if it contributes to promoting the latter's productive capacities. FDI from ODCs can be more effective than that from developed countries because of the greater similarity of economic and institutional conditions between the home and host countries. Such similarity facilitates the establishment of developing-country TNCs in LDC hosts, fosters job creation and enables a more effective transfer of technology and knowledge to local agents (UNCTAD, 2006b: 183–200).

The acceleration of FDI flows from developing countries to LDCs has certainly contributed to boosting the latters' exports, and it has probably also played a role in their capital formation. In addition, developing-country FDI in manufacturing and tourism has accelerated job creation. However, these two sectors, account for a smaller share of such FDI inflows in LDCs; most of these flows are directed to capital-intensive projects (especially natural resources), which tend to have a limited impact on job creation. Moreover, frequently FDI projects in LDCs — in the primary sector and many in the secondary and tertiary sectors — tend to operate as enclaves, which are very well integrated internationally but have limited linkages with the domestic economy (Centre for Chinese Studies, 2006). This seriously limits the potential of this form of FDI to stimulate domestic activity, learning and technology upgrading (UNCTAD, 2007a: 33–36).

The acceleration of FDI flows from developing countries to LDCs has certainly contributed to boosting the latters' exports, and it has probably also played a role in their capital formation.

Crucially, the fiscal linkages of South-South FDI in natural resources tend to be very weak. These linkages are potentially the major way of ensuring development benefits from foreign investment in extractive industries. However, in many cases, in order to attract foreign investment, LDCs have offered very favourable conditions to foreign investors in these sectors (including those from developing countries) (UNCTAD, 2005a: 108–115, and 2005b: 37–63). Consequently, the amounts of taxes, levies and royalties paid by TNCs engaged in natural resource activities tend to be very limited, except when the State directly owns part of natural-resource exploiting companies (UNCTAD, 2010b: 155–158). Host-country LDC Governments tend to capture

only a small share of resource-related rents, thus depriving their countries of crucial potential benefits from those investments.

Overall, developing-country FDI in LDCs has in the past contributed to locking these countries into their traditional specializations and positions in the international division of labour, with a concentration in commodities and low value-added manufacturing. Thus the development effect of South-South FDI is similar to that of South-South trade, with which it is strongly associated. Still, it has the potential to contribute to the diversification of the economic structure of LDCs, as shown by the proportion of developing-country FDI directed to non-traditional sectors (e.g. manufacturing, and financial and telecom services), which is still small, but may grow in the future and contribute to the diversification of LDC economies.

Overall, developing-country FDI in LDCs has in the past contributed to locking these countries into their traditional specializations and positions in the international division of labour.

South-South development cooperation

Most of the positive impacts of South-South development cooperation on LDCs stem from the similarity of economic, social, institutional and environmental conditions prevailing in the donor and recipient countries (table 32), as well as mutual respect and solidarity arising from a common development experience. The similarities in conditions imply a strong potential for knowledge transfer and experience sharing. Policymakers and societies in middle-income developing countries have the experience of dealing simultaneously with several layers of economic and social problems, including structural bottlenecks and deficiencies, low physical and human capital accumulation, poverty and external constraints on development. Many larger developing countries have successfully devised original strategies and policies for dealing with these issues, which they can share with LDCs. This pertains especially to agriculture, food security, energy, health, education, social policies, industrial policy, planning, international negotiations and climate change. These are already included in their development cooperation projects with LDCs, but there is potential for further expansion.

The similarity of conditions prevailing in the donor and recipient countries imply a strong potential for knowledge transfer and experience sharing.

Official financial flows from developing countries to the LDCs supplements official inflows from DAC donors. It therefore contributes to easing LDC external financing constraints. Its stronger orientation towards improving productive capacities implies that it makes a more direct contribution to the long-term development of LDCs and addresses some of the major structural shortcomings of these countries (UNCTAD, 2006a). Although official financial flows from southern partners are often tied to non-policy conditions (such as the purchase of goods and services provided by firms in the country providing support), the absence of policy conditionality is highly appreciated by LDC recipients (UNCTAD, 2010a).

Official financial flows from developing countries to the LDCs supplements official inflows from DAC donors and contributes to easing LDC external financing constraints.

Until recently, a main shortcoming of development assistance from the South in the form of official finance was the smaller amount compared with that provided by the North.[14] However, several developing-country donors (e.g. Brazil, China and India) have augmented their development cooperation budgets substantially in recent years, with a consequent increase in the positive impacts of such assistance.

Several developing-country donors have augmented their development cooperation budgets substantially in recent years.

(ii) Economic relations with regional partners

Regional integration among developing countries can be an effective tool for development. It allows domestic firms to learn how to operate internationally and achieve economies of scale, it enables diversification of exports and it

entails lower adjustment costs than integration with high-income developing or developed countries. In addition, South-South regional integration enables the geographical diversification of trade, investment and official finance. Moreover, regional synergies can be created through joint investment infrastructure projects and/or through the regional division of labour.[15] For all these reasons, in addition to political motivations, most developing countries — including LDCs — are increasingly participating in regional integration initiatives. Economic relations of LDCs with RTA partners conform more to this expected pattern than their links with other partner groups, as reflected for instance in their regional trade patterns analysed earlier.

Regional synergies can be created through joint investment infrastructure projects and/or through the regional division of labour.

At present, the following are some of the main obstacles to regional integration fulfilling its potential as a development tool for LDCs:

- The gap between the stated objectives of integration plans and projects, and their actual implementation;
- The relatively small size of economies, which means that RTA partners are much smaller export markets and that the resources available for common projects are limited, even when they are pooled;
- The low level of resources set aside for joint intraregional projects;
- Physical and infrastructural barriers that hamper the movement of goods, services and people among member countries of the same RTA (UNCTAD, 2009b);
- Simultaneous membership of several competing RTAs and overlapping mandates of many African RTAs.[16]

The gap between the stated objectives of integration plans and projects, and their actual implementation is a major obstacle to regional integration fulfilling its potential as a development tool for LDCs.

These limitations and the low level of development of most RTA members largely explain the rather low intraregional trade in most RTAs that include LDCs as members (tables 10 and 12). Yet, despite these shortcomings, many of the positive effects of regional integration are already evident. This shows the potential for achieving even more beneficial development outcomes once these shortcomings are — at least partially — overcome.

Many of the positive effects of regional integration are already evident and the potential for achieving even more beneficial development outcomes, once existing shortcomings are overcome, is clear.

D. An agenda for action to create a NIDA for LDCs

The creation of a new international development architecture for the LDCs requires comprehensive reforms in the areas of finance, trade, commodities, technology and climate change. These should include: (i) systemic reforms of the global regimes governing these areas; (ii) the design of a new generation of ISMs for the LDCs, building on the lessons of the past; and (iii) enhanced South-South development cooperation in favour of LDCs. The main elements of an agenda for action, discussed in detail in the last three chapters of this Report, are presented in table 33 and briefly discussed below.

The creation of a NIDA should include systemic reforms of the global regimes, a new generation of ISMs for the LDCs, and enhanced South-South development cooperation in favour of LDCs.

1. Finance

Given LDCs' limited domestic financial resources, financing their development in a sustained and stable way is sometimes reduced to the question of the quantity and quality of aid. However, although the aid architecture remains important, this chapter seeks to place the financing challenge within a broader framework. It focuses on two major areas for action which would

contribute to the creation of the proposed NIDA: (i) the provision of resources for productive investment, particularly through the promotion of domestic financial resource mobilization, the creation of innovative sources of long-term development finance and innovative uses of aid to develop productive capacities, in addition to debt relief; and (ii) the promotion of country ownership and creation of policy space to help mobilize and direct those resources in line with local conditions.

Aid should have a developmental nature and play a catalytic role in leveraging other forms of development finance.

In this framework, aid certainly has an important role to play. Indeed, in the short and medium term there are major financing needs which can only be met through official financial flows. While humanitarian aid, to alleviate the immediate suffering of people living in abject poverty, is necessary, the major role of aid should be of a developmental nature. It should play a catalytic role in leveraging other forms of development finance. Thus aid should aim to promote greater domestic resource mobilization and the creation of an investment-profits nexus which is in LDCs based on the domestic private sector. This would also help LDCs to reduce their dependence on aid.

Priorities for systemic reforms should include: (i) promoting domestic resource mobilization; (ii) reform and reduction of conditionalities attached to assistance; (iii) the enhancement of current debt relief initiatives.

Priorities for systemic reforms in the global economic regime should include: (i) promoting domestic resource mobilization through increased aid for developing tax administration capability and financial deepening and with global financial and tax cooperation to reduce illicit capital flight and transfer pricing; (ii) promoting country ownership of national development strategies through reform and reduction of conditionalities and helping to rebuild developmental State capacities; and (iii) the enhancement of current debt relief initiatives show that the debt overhang in 20 LDCs which are current in debt distress, or at risk of debt distress is addressed. In addition, a new generation of ISMs should include: (i) increasing LDCs' access to development finance by meeting DAC-countries aid commitments (0.15-0.20% of GNI); (ii) increasing share of aid for development of productive capacities through more aid for infrastructure and skills, innovative uses of aid, including new approaches to private sector development and PPPs incentivizing FDI in infrastructure development; (iii) supporting better aid management policies in LDCs, in particular through sharing experiences; and (iv) devising innovative sources of funding for LDCs, including in particular SDRs allocation. The design of contingency financing and anti-shock facilities for LDCs is also an important issue which is discussed and taken up further in the commodities pillar.

ISMs should include: (i) the fulfilment by DAC donors of their commitment; (ii) increasing the share of aid for the development of productive capacities through innovative uses of finance; (iii) supporting better national aid management policies; and (iv) devising innovative sources of funding for LDCs.

2. Trade

In the area of trade, it is clear that the successful conclusion of a Doha Round of multilateral trade negotiations under the aegis of the WTO in a way which gives central importance to development outcomes for all developing countries would also benefit LDCs. In addition, the Report makes three major proposals. First, it supports the "early harvest" notion for LDCs, which was presented by LDC Trade Ministers in the context of the Doha Round negotiations. This includes, in particular, full implementation of duty-free and quota-free (DFQF) market access for all products originating from all LDCs, in line with Decision 36 of Annex F of the Hong Kong WTO Ministerial Declaration, and a waiver decision on preferential and more favourable treatment for services and service suppliers in LDCs. This Report proposes that implementing these measures should not be made contingent on the completion of the Doha Round. Providing full DFQF market access for LDCs on all product lines is also part of Goal 8 of the MDGs, and its

Table 33

An agenda for action towards a New International Development Architecture for the least developed countries

	Systemic Reforms in Global Economic Regimes	South-South Development Cooperation	LDC-specific International Support Mechanisms
Finance	• Promote domestic resource mobilization through: - Increased aid for developing tax administration capability and financial deepening - Global financial and tax cooperation to reduce illicit capital flight and transfer pricing • Promote country ownership of national development strategies: - Reform and reduce conditionalities - Help rebuild developmental State capacities • Enhance debt relief initiatives to address the continuing debt burden in many LDCs	• Scale up official financial flows, including by diversifying funding sources • Expand debt relief by Southern creditors • Regional financing schemes (funds, development banks, joint investment projects) • Establish regional development corridors • Create synergies between South-South and North-South official financial flows • Developing countries in a position to do so to adopt minimum share for LDCs of their official financial flows • Increase the developmental impact of South-South FDI through: - Home and host country measures and policies; - Multilateral financing of diversification projects;	• Increase LDCs' access to development finance by meeting DAC-countries aid commitments (0.15-0.20% of GNI) • Support better aid management policies in LDCs • Devise innovative sources of funding for LDCs, including in particular SDRs allocation • Increase share of aid for development of productive capacities through: - More aid for infrastructure and skills - Innovative uses of aid, including new approaches to private sector development and PPPs incentivizing FDI in infrastructure development
Trade	• Conclude the Doha Round giving central importance to the development outcomes for all developing countries • Urgently implement the so-called "early harvest" without waiting for the completion of the Doha Round negotiations	• Deepen regional integration in South-South RTAs • LDCs to develop a pro-active policy stance on South-South economic relations • Foster regional trade through better information and trade facilitation • Developing countries in a position to do so provide DFQF market access for LDC exports	• Enable LDCs to pursue strategic integration into global economy • Empower LDCs to use all flexibilities provided under WTO rules • Strengthen the special and differential treatment for LDCs • Improve preferential market access for goods of LDCs, including 100 per cent DFQF by all developed countries • Extend preferential market access for LDC services exports • Simplify the accession of LDCs to the WTO • Accelerate the provision of Aid for Trade through EIF
Commodities	• Establish a counter-cyclical financing facility for low income commodity-dependent countries to deal with external shocks • Set up an innovative commodity price stabilization schemes, including physical and virtual reserves • Establish transaction tax (multi-tier) for commodity-derivative markets • Establish a counter-cyclical loan facility indexed to debtors' capacity to pay		• Strengthen ability of LDCs to manage resource rents • Technical and financial assistance to enable resource-based industrialization
Technology	• Make the global IPR regime more development friendly by - Creating a balance between private and public dimensions of knowledge - Supporting emergence of a new and coherent reality of technology transfer that complements domestic capabilities building • Promote knowledge-intensive activities through mobilization of domestic resources • Support the emergence of the learning-oriented developmental state that could facilitate knowledge based activities	• Share knowledge and experiences of industrial development strategies • Set up regional R&D hubs • Strengthen South-South cooperation on technology, including by providing finance on preferential terms for transfer of technology to LDCs	• Technology-sharing consortia • Technology licence bank for LDCs • The International Spark Initiative to promote enterprise innovation • The LDC Talents Abroad Initiative to pool in the diaspora • Provide IP-related technical assistance to LDCs that is comprehensive, coherent and development-focused • Focus the technology transfer under Article 66.2 on expanding the reach of LDCs to technologies across the gamut of competencies in all sectors, accompanied by the know-how

Table 33 (contd.)

	Systemic Reforms in Global Economic Regimes	South-South Development Cooperation	LDC-specific International Support Mechanisms
Climate change	• Enhance the sustainability and predictability of climate change financing • Develop accountable, transparent and representative climate finance governance	• Share knowledge and experience in mitigation and adaptation to climate change • Strengthen South-South collaboration on renewable energy through technical cooperation, technology transfer, trade and investment.	• Make UNFCCC a key pillar of predictable and equitable climate change finance framework for LDCs • Replenish and reform LDC Fund • Incorporate climate adaptation project preparation facility in LDC fund. • LDC-specific exceptions in mobilization of resources for climate change financing (e.g. Tuvalu proposal for differentiated taxation on international transport) • Provide technical assistance to support implementation of REDD+ in LDCs • Reform CDM to promote LDC access to renewable energy sector technology and finance • Provide technical assistance to support LDC integration of climate adaptation and mitigation needs into national development plans

Source: UNCTAD secretariat.

accelerated implementation would be an important aspect of strengthening the Global Partnership for Development between 2010 and 2015, even though it has been negotiated in the WTO Doha Round. Secondly, LDCs should be empowered to use all the flexibilities already available under WTO rules to foster the development of their productive capacities and pursue their own form of strategic integration into the global economy. This will allow them to develop a new strategic trade policy to support their development and poverty reduction efforts in a manner compatible with the new post-crisis global macroeconomic environment. It would also enable them to take advantage of the new opportunities associated with South-South trade. However, to achieve all this they would need appropriate support. Thirdly, the EIF offers an important operational mechanism for ensuring that aid for trade development in the LDCs is focused on priority activities, and is integrated within national development and poverty reduction strategies. However, during the past decade, the flow of aid for trade, using the OECD statistical definition of this category, was increasing more slowly in LDCs than in other developing countries. A priority ISM for LDCs should be to accelerate that flow to LDCs, and ensure that it is directed at enhancing their productive capacities and international competitiveness in line with the principle of country ownership. Trade-related capacity-building should be seen as part of the wider objective of developing LDCs' productive sectors and promoting the development of their private sectors. Thus, in addition to trade facilitation, it should include support for technological development and diversification out of commodity dependence.

LDCs should be empowered to use all the flexibilities already available under WTO rules to foster the development of their productive capacities.

EIF flows should accelerate and be directed at enhancing their productive capacities and international competitiveness.

3. Commodities

In the area of commodities, the long-term goal should be structural transformation leading to more diversified economies. However, in the short and medium term, some new forms of international commodity policy are required.

Priority actions in the global economic regime could include the introduction of new measures for reducing the volatility of commodity markets and the adverse impacts of that volatility, such as:

Priority actions in the global economic regime could include the introduction of new measures for reducing the volatility of commodity markets and the adverse impacts of that volatility.

(i) The establishment of a global countercyclical facility that ensures fast disbursement of aid at times of commodity price shocks, with low policy conditionality and high concessionary elements;

(ii) Setting up of innovative commodity price stabilization schemes, consisting of both physical and virtual reserve facilities;

(iii) Introduction of taxation measures to reduce speculation in global commodity markets; and

(iv) A counter-cyclical loan facilities indexed to debtors' capacity to pay.

The new generation of ISMs in the area of commodities should focus on various kinds of financial and technical assistance to enable greater local value added and linkages from resource-based diversification. These should include support to LDCs for improving the use of resource rents and avoiding Dutch disease effects, investment in improving knowledge of their natural resource potential, and the provision of technical assistance for LDC negotiations with transnational corporations (TNCs) to ensure that a greater proportion of the rents from natural resource exploitation accrue to the LDCs, and that those rents support resource-based industrialization.

ISMs in the area of commodities should focus on enabling greater local value added and linkages from resource-based diversification.

4. Technology

In the area of technology, the NIDA should focus on achieving a new balance between the private and public dimensions of knowledge. Knowledge is both a public good and a proprietary good (or quasi-private good), and includes features of both appropriability and exclusivity. The present global framework for technology issues is fragmented and incomplete, with a strong emphasis on proprietary knowledge in the form of intellectual property rights (IPRs). Within this framework, issues of technology transfer and knowledge accumulation — which are fundamental to improving productive capacities in LDCs — have been accorded secondary importance. The new knowledge architecture should focus on enabling a more development-friendly technology and IPR regime. It can do this by creating a balance between the public and private dimensions of knowledge and supporting the emergence of a new, coherent system of technology transfer that facilitates LDCs' domestic efforts to build innovative capacity. It should also strengthen LDCs' efforts to mobilize domestic resources to promote knowledge-intensive activities and the emergence of a learning-oriented developmental State.

The new knowledge architecture should focus on enabling a more development-friendly technology and IPR regime by creating a balance between the public and private dimensions of knowledge and supporting the emergence of a new, coherent system of technology transfer.

New forms of international public goods are required to counter the continued marginalization of LDCs in the acquisition and use of technologies, and also to achieve a gradual realignment of incentives provided under the global IPR regime. The Report makes specific proposals to make TRIPS Article 66.2 work for the LDCs. The Report also offers specific proposals for new ISMs for LDCs in the area of technology, as follows:

New forms of international public goods are required to counter the continued marginalization of LDCs in the acquisition and use of technologies.

(i) Regional technology sharing consortia;

(ii) A technology licence bank;

(iii) A multi-donor trust fund for financing enterprise innovation in LDCs; and

(iv) Diaspora networks to pool LDC talents from abroad.

These knowledge-based global public goods would help overcome some major limitations of the innovation environment in LDCs.

ISMs for LDCs in the area of technology include: (i) Regional technology sharing consortia; (ii) A technology licence bank; (iii) A trust fund for financing enterprise innovation in LDCs; and (iv) Mobilizing LDC diaspora networks.

5. Climate change adaptation and mitigation

The proposals concerning technology also apply to some of the international policies for climate change adaptation and mitigation. In addition, a critical priority at present is the establishment of an overall architecture for financing such mitigation and adaptation to increase the volume, predictability and sustainability of such financing. It is important for climate-change-related financing to be consistent with the United Nations Framework Convention on Climate Change (UNFCCC) and the Bali Action Plan which targets finance for the promotion of sustainable economic development. Specific ISMs for LDCs include: adequate financing of the LDC Fund (LDCF), increasing technical assistance to LDCs for incorporating climate adaptation needs into their national development strategies, constructive engagement in helping LDCs to reduce emissions from deforestation and forest degradation (REDD), and improved access for LDCs to the Clean Development Mechanism (CDM) as a means of overcoming the financial barriers that prevent LDCs' access to renewable energy technology. The implementation and adoption of LDC proposals on transportation levies and carbon taxes, which call for various exceptions for LDCs, should also be supported.

A critical priority at present is the establishment of an overall architecture for financing climate change adaptation and mitigation to increase the volume, predictability and sustainability of such financing.

6. South-South development cooperation

South-South cooperation is a cross-cutting issue relating to all the pillars of the proposed NIDA. In general, the increasing integration of LDCs with some large and fast-growing economies (such as Brazil, China, India and South Africa — the so-called emerging countries), and to a lesser extent with ODC partners in regional trade agreements (RTAs) through trade, FDI, official development finance and knowledge-sharing can help LDCs develop their productive capacities. To this end, South-South economic relations need to foster domestic economic linkages, employment creation, technological learning, diversification and upgrading of output and exports and the strengthening of State capacities. At present, this potential is being realized only to a limited extent — far below its possibilities. In order to fulfil the development potential of the evolving South-South economic relations, the Report makes the following recommendations for the proposed NIDA:

ISMs for LDCs include: adequate financing of the LDC Fund, increasing technical assistance to LDCs, constructive engagement in REDD, and improved access to the CDM.

- Strengthening South-South development cooperation, by intensifying development cooperation activities and projects, sharing knowledge of successful alternative development strategies adopted by ODCs, improving the transparency of South-South development cooperation, and increasing the synergy between North-South and South-South development cooperation;
- Deepening regional integration through RTAs in which LDCs participate, through measures taken by RTA partners and supported by large developing countries, developed-country donors and multilateral institutions;
- Increasing the development impact of South-South FDI by means of home- and host-country policies and through different agreements between TNCs from the South and LDC host Governments;

In the area of South-South relations, the NIDA should include: strengthening South-South development cooperation; deepening regional integration; increasing the development impact of South-South FDI; enhancing the transfer of technology from developing countries to LDCs; and broadening market access for LDCs.

- Enhancing the transfer of technology from developing countries to LDC workers, firms and farms, including technology relating to "new" areas (e.g. sustainable energy and climate change); and
- Broadening market access for LDCs' exports of goods and services.

ISMs for consideration within South-South cooperation are: a minimum share of their official development finance for LDCs; Special mechanisms dedicated to LDCs in South-South political forums; SDT measures for LDCs within RTAs; finance transfer of their technologies to LDCs; South-South collaboration on renewable energy.

The Report proposes the following specific ISMs for consideration within South-South cooperation:

- Developing countries in a position to do so should set aside a minimum share of their official development finance for LDCs;
- Special mechanisms dedicated to LDCs should be established in South-South political forums (e.g. Forum on China-Africa Cooperation);
- RTAs should adopt SDT measures for LDCs;
- Large and dynamic developing countries in a position to do so should offer DFQF market access to LDC exports;
- Large and dynamic developing countries should finance transfer of their technologies to LDCs on preferential terms;
- South-South collaboration on renewable energy should be strengthened through technical cooperation, trade and investment.

In order to improve the development impact of these actions, LDC Governments need to formulate proactive strategies for their deeper economic integration with the other countries of the South. This should include enacting policies that steer this process to maximize its contribution to the development of their productive capacities.

Together, these proposals constitute an ambitious agenda for action. The remainder of this Report discusses the specific proposals in more detail.

Notes

1 A full technical description of the model is available at: http://www.un.org/esa/policy/publications/ungpm.html

2 Adaptation involves adjusting practices, processes and capital in response to actual or potential climate change, as well as changes in the policy environment, including social and institutional structures. Adaptation assists in moderating potential damages, takes advantage of opportunities and helps cope with the consequences of climate change. Climate change mitigation refers to actions aimed at reducing the causes of climate change, including reducing greenhouse gas (GHG) emissions and/or enhancing their sinks (i.e. increasing the uptake of CO_2 by forests, plants and soils), so as to prevent further global warming. However, it is important to note that some adaptation measures may also constitute mitigation actions, which entail financial costs in terms of trade-offs with economic development.

3 Throughout this Report reference is made to the emergency events database, EM-DAT, of the Centre for Research on the Epidemiology of Disasters (CRED) for data on natural and climatological disasters (http://www.emdat.be/). EM-DAT distinguishes between two generic categories of disasters: natural and technological. The natural disaster group has five subgroups: biological, geophysical, climatological, hydrological and meteorological. These in turn cover 12 disaster types and more than 32 sub-types. Here, we focus on the natural disaster generic group and the climatological data subgroup, which comprises events caused by long-term meso- to macro-scale processes (in the spectrum from intraseasonal to multidecadal climate variability), such as extreme temperatures, droughts and wildfires. Where reference is made to extreme weather events, this includes data from the hydro-meteorological subgroups specifically relating to drought, floods, storms and extreme temperatures.

4 See Haitian Government's Directorate of Civil Protection estimates, at: http://earthquake.usgs.gov/earthquakes/eqinthenews/2010/us2010rja6/#summary.

5 UNCTAD secretariat estimates, based on EM-DAT: *OFDA/CRED International Disaster Database.*

6 In this section developing countries are grouped into three categories: (i) major developing trade partners (MDTPs); (ii) RTA partners; and (iii) developing economies not elsewhere specified (n.e.s.) For the full names, composition and explanation of the choice of RTA groups mentioned in this chapter, see p.xxx of this Report).

7 The shares mentioned in the text and in the tables refer to trade values. Therefore, the corresponding growth rates reflect both volume and price developments.

8 The following RTAs are considered for the trade flow analysis in the present section: ASEAN Free Trade Area (AFTA), Caribbean Community (CARICOM), Common Market for Eastern and Southern Africa (COMESA), Economic Community of Central African States (ECCAS), Economic Community of West African States (ECOWAS), Pacific Island Countries Trade Agreement (PICTA), Southern African Development Community (SADC), SAARC Preferential Trade Arrangement (SAPTA), Arab Maghreb Union (UMA) (see p.xxx of this Report).

9 For the classification of goods used here, see p.xxx of this Report.

10 Between 1995–1996 and 2007–2008, approximately three quarters of the increase in fuel export revenues was due to price effects, while the remaining was due to volume growth.

11 There is also a Chinese industrial zone in Sierra Leone, which it is driven by the Chinese private initiative, without "official" support.

12 See, for example, Lucas, 1988; Young, 1991; Grossman and Helpman,1991: 237–257; Rivera-Batiz and Romer, 1991; Feenstra, 1996; and Fujita, Krugman and Venables,1999.

13 Empirical studies suggest that exports of labour-intensive manufactures from the MDTPs have jeopardized domestic, regional and global markets for producers of the same goods in several African LDCs. The strong rise in imports of clothing, textiles, leather goods and footwear from MDTPs over the last 10 years has been associated to declines in domestic output and employment of the corresponding industries in Ethiopia, Lesotho, Madagascar and Senegal (Ademola, Bankole and Adewuyi, 2009; Kaplinsky, 2008; Gebre-Egziabher, 2009; Hazard et al., 2009). Exports of those products as well as natural resource-intensive manufactures by MDTPs have displaced intra-regional trade in Africa (Khan and Baye, 2008; Onjala, 2008; Burke, Naidu and Nepgen, 2008), as well as the exports of those goods by African producing countries (including LDCs) to third markets (Kaplinsky, 2008; Giovannetti and Sanfilippo, 2009). Empirical studies also indicate that the rise of the exports of MDTPs are affecting exports of South Asian LDCs in third markets (Qureshi and Wan, 2008). More broadly, the share of RTA partners in total imports of African and Asian LDCs and Haiti declined between 1995–1996 and 2007–2008, while that of MDTPs rose. These changes were especially strong in African LDCs, where the share of RTA partners fell by 11 percentage points, while that of MDTPs rose by 17 percentage points.

14 South-South official development finance corresponded to between 7.8 per cent and 9.8 per cent of total ODA flows in 2006 (United Nations, 2008).

15 There is extensive literature on regional integration among developing countries including, for example, UNCTAD, 2005a and 2008; UNECA, 2004, 2006, 2008 and 2010; and Schiff and Winters, 2003.

16 Out of the 53 member States of the African Union (including all the 33 African LDCs), 26 belong to two RTAs, 20 belong to three of them and one State belongs to four RTAs (UNECA, 2006).

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