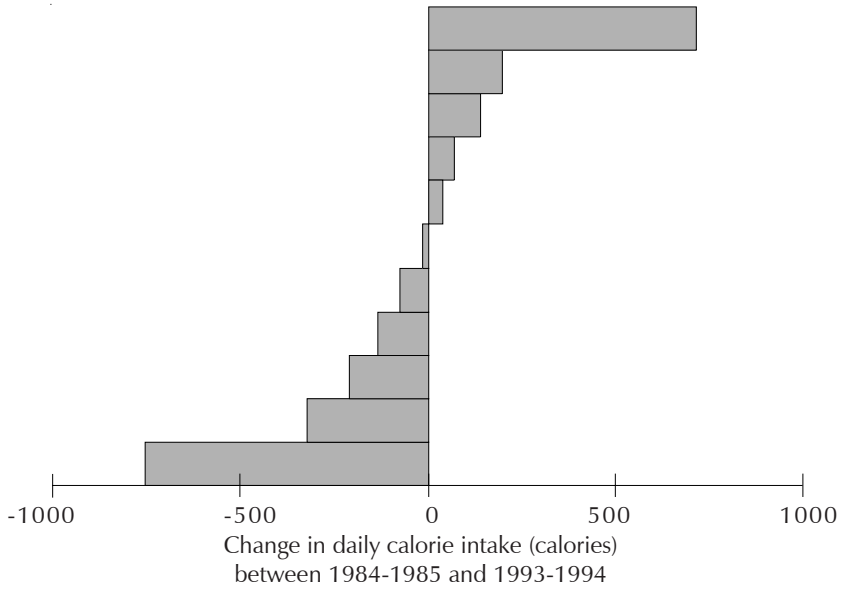
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

THE LEAST DEVELOPED COUNTRIES
1997 REPORT

UNITED NATIONS

Per Capita Food Availability in Selected LDCs between 1984-1985 and 1993-1994



This year's Report examines two separate but related issues – agriculture and economic regress. Economic regress has an impact on agricultural performance, and one way in which this manifests itself is through a change in the amount of food people eat per day. The chart on the cover of this year's Report is based on data on per capita food consumption in selected LDCs. There has been a wide disparity in performance within the LDC group: for instance, while Burkina Faso has recorded an increase of around 700 calories per capita over the ten-year period, in some LDCs experiencing various forms of economic regress, daily calorie intake has fallen, in some cases by as much as 750 calories per person per day. For more information and the source data for the chart, see tables 9 and 12, on pages 66 and 130 of the Report, respectively.

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
Geneva

THE LEAST DEVELOPED COUNTRIES
1997 REPORT

Prepared by the UNCTAD secretariat

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Note

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Foreword

The Least Developed Countries, 1997 Report is the thirteenth such Report, focusing the attention of the international community on the key developmental issues facing the least developed countries (LDCs), the most impoverished group in the world economy.

The Report is divided into three parts. Part One examines economic developments in LDCs during 1996 and discusses prospects for 1997; reviews recent developments in ODA flows and LDCs' external debt; examines the impact of recent economic reforms in LDCs and why the economic performance of some of these countries has improved while that of many others has not; and addresses commodity issues.

Part Two focuses on the agricultural sector in LDCs. It reviews the impact of their agricultural policy reforms, the major constraints on sustainable agricultural development, and the likely effects of changes in the international trading system on LDCs' agriculture.

Part Three considers the circumstances of a number of LDCs whose performance as regards certain economic and social indicators over the past decade has been significantly worse than average. These "economies in regress" often experience a progressive deterioration in the State's capacities to carry out basic functions, such as the maintenance of law and order and the provision of essential services, and present a particular challenge to those concerned with their development.

The Report this year has a number of functions. It is the principal background document for the annual review, by the Trade and Development Board, of progress in the implementation of the Programme of Action for the LDCs for the 1990s. Additionally, it will serve as a background document for the High-Level Meeting on the Integrated Initiatives for Least Developed Countries' Trade Development convened last year by the Ministerial Conference of the World Trade Organization in Singapore. This meeting, to be held in Geneva on 27 and 28 October 1997, will directly address the concerns and circumstances of the least developed countries in the post-Uruguay Round context, and is a welcome sign that the specific issues facing LDCs are finally moving up the international agenda.

The Report is intended for a broader readership of governments, policy makers, researchers and all those involved with LDCs in particular and development policy in general. For that purpose, it has been redesigned and updated to make it more accessible, readable and informative. The statistical annex has been re-examined and overhauled, bearing in mind the particular constraints on the gathering and interpretation of economic and social data from LDCs. Data are ultimately only as reliable as the national statistical offices that provide them, and a variety of factors affect the institutional capacity of LDCs to deliver adequate statistics. Thus, the quality and timeliness of the data will vary considerably between LDCs, and even between different years within the same country. In the light of this, the number of tables has been reduced so as to provide a more concise, accurate and realistic description of the current state of LDCs.

UNCTAD's commitment to LDCs is part of an ongoing process. It has extended its operations to the Internet (http://www.unicc.org/unctad), making freely available a range of current information on LDCs, and providing a further gateway for feedback and comments. In partnership with governments, multilateral and bilateral organizations and agencies, NGOs and academics, UNCTAD hopes to be able to increase understanding of the issues and challenges facing LDCs at this crucial time. It is hoped that this Report will go some way to furthering that process.

The UNCTAD secretariat gratefully acknowledges the participation of the governments of the member States of UNCTAD, the organizations of the United Nations system, and other national and international bodies that have made valuable contributions to this Report.

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Explanatory Notes

The term "dollars" ($) refers to United States dollars unless otherwise stated. The term "billion" signifies 1,000 million.

Annual rates of growth and changes refer to compound rates. Exports are valued f.o.b. and imports c.i.f. unless otherwise specified.

Use of a hyphen (-) between dates representing years, e.g. 1981-1990, signifies the full period involved, including the initial and final years.

An oblique stroke (/) between two years, e.g. 1991/92, signifies a fiscal or crop year.

The abbreviation LDC (or LDCs) refers, throughout this report, to a country (or countries) included in the United Nations list of least developed countries.

In the tables:

Two dots (..) indicate that the data are not available, or are not separately reported.

One dot (.) indicates that the data are not applicable.

A hyphen (-) indicates that the amount is nil or negligible.

A plus sign (+) before a figure indicates an increase; a minus sign (-) before a figure indicates a decrease.

Details and percentages do not necessarily add up to totals, because of rounding.

Abbreviations

AHFSI	Aggregate Household Food Security Index
AMS	Aggregate Measurement of Support
CEMAC	Communauté économique et monétaire en Afrique centrale
CFA	Communauté financière africaine
c.i.f.	cost, insurance, freight
CRDB	Cooperative and Rural Development Bank
DAC	Development Assistance Committee (OECD)
DC	developing country
DES	dietary energy supply
DFIs	development finance institutions
DMEs	developed market economies
DRF	Debt Reduction Facility
ECOWAS	Economic Community of West African States
ESAF	Enhanced Structural Adjustment Facility
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FDI	foreign direct investment
FI	financial institution
FII	Food Inadequacy Index
f.o.b.	free on board
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GEF	Global Environmental Facility
GNP	gross national product
GSP	generalized system of preferences
HIPC	heavily indebted poor country
HYVs	high-yielding varieties
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IMF	International Monetary Fund
IMRs	infant mortality rates
MFA	Multi-Fibre Arrangement
MFN	most favoured nation
NGO	non-governmental organization
NTBs	non-tariff barriers
NTCs	non-traditional agricultural commodities
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
R&D	research and development
RFI	rural financial institution
SACA	Smallholder Agricultural Credit Association
SADC	Southern African Development Community
SAF	Structural Adjustment Facility
SAPs	structural adjustment programmes
SMC	Singapore Ministerial Conference
SPA	Special Program of Assistance for Africa
SPS	sanitary and phytosanitary
SSA	sub-Saharan Africa

TBT	technical barriers to trade
T&V	training and visit
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNHCR	Union Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UR	Uruguay Round
URA	Uruguay Round Agreements
URAA	Uruguay Round Agreement on Agriculture
WTO	World Trade Organization

Overview

Introduction

Important, and on balance encouraging, developments have taken place among the least developed countries in the mid-1990s. The determined efforts to implement economic policy reforms have led to improved economic performance in about half of the LDCs. The economic revival is most notable in Africa, where economic growth rates have risen to levels that, on average, involve modest increases in per capita output. Macroeconomic reforms, particularly exchange rate reforms, have played an important role in stimulating higher growth rates in many LDCs. Economic improvement has taken place despite the continued stagnation of aid flows to LDCs and the persistence of their external debt problems. Reduction of the external debt burden, together with an increase in aid flows, would provide strong support for the economic reforms currently underway in LDCs, and help ensure that the current revival is sustained. The recent economic performance of the LDCs and developments in external financing are reviewed in Part One of this Report.

While improved macroeconomic policy has been vital to the economic revival in many LDCs, sustaining the recovery and accelerating growth rates to levels at which substantial reductions in poverty can be achieved will require greater attention to institutional and sectoral reforms. In most LDCs, the area in which those reforms are likely to have their greatest impact is agriculture, an issue which is analysed in Part Two. Agriculture is the single most important sector in LDCs' economies in terms of its contribution to output, employment and incomes. Increasing productivity in agriculture, especially in smallholder agriculture, is essential if the living standards of the majority of the poor, who live in the rural areas, are to be raised, and if food security is to be enhanced. Agriculture is an important source of savings and foreign exchange. Development of the agricultural sector offers most LDCs their best prospects for accelerating GDP growth rates and for boosting and diversifying their exports. Also, it can give a crucial boost to the nascent manufacturing sector, by expanding the internal market for consumer goods and providing raw materials for processing industries. Agricultural reforms laid the foundations for the rapid growth and development of some of the most dynamic developing economies in Asia. The lessons of successful agricultural reform in Asia for the LDCs are analysed in the Report.

There has been a growing recognition in recent years of the crucial role played by institutions in economic development. The disparities in economic performance among LDCs are largely explained by internal factors, including the quality of governance. For a significant number of LDCs, the deterioration of the institutional structure of society, particularly state structures, has retarded development over a prolonged period. The economic and social regress afflicting these countries is examined in Part Three. The most extreme and damaging forms of regress are manifested in internal conflicts which have ravaged several LDCs. The Report argues that the international community cannot afford to ignore the problems of regress in LDCs: in addition to the obvious humanitarian considerations, the economic and social consequences of regress are huge, often with significant regional dimensions. The international community should give urgent attention to helping LDCs strengthen their institutional structures in order to prevent state collapse, facilitate a peaceful resolution of internal conflicts and rebuild war-torn societies.

"For perhaps the first time, we are in a position to build a free and open world economy in which all countries can participate and from which all countries can benefit. For the first time, long cherished hopes of eradicating poverty seem attainable, provided that concerted political will is brought to the task."

Statement by the Secretary-General of the United Nations to the High-Level Segment of the 1997 Substantive Session of the Economic and Social Council (July 1997, SG/SM/97/138).

Developments in LDCs and the world economy in 1996

Although growth rates for **the LDC group** fell in 1996 compared with 1995, growth has been relatively robust, and many LDCs have performed well enough to have recorded not only real increases in output, but also real increases in per capita income. There has been a very slight difference between the performance of African and Asian LDCs. The LDCs are an extremely heterogeneous group, however, and the most significant disparities in performance exist not at a regional but at a country level, with a difference of over 20 per cent between the highest and lowest GDP growth rates for LDCs.

The future is looking decidedly brighter for LDCs in **Africa** than has been the case for quite some time. Many African countries, including LDCs, have experienced higher growth rates since 1994: 19 African LDCs have had growth rates in excess of 4 per cent, and 10 of those have had GDP growth rates higher than 5 per cent. There are indications that this trend is set to continue. In many countries, export production has been increased, inflation rates have been reduced and reform has been consistently well implemented since the 1990s.

LDCs in the CFA franc zone have benefited from the 1994 devaluation of the CFA franc. This overvalued currency had long stifled growth in the traded goods sector and had, to some extent, undermined the credibility and effectiveness of economic reform in the region. That all nine members of the CFA zone achieved positive growth in 1996 and that several CFA countries have also boosted production of cotton, their principal export crop, suggests that reforms have been successful. Other African countries (particularly in East and Southern Africa) have had good weather, and as a result, large increases in cereal production have been recorded. Unfortunately, however, many LDCs in Africa continue to be blighted by civil strife and political instability.

Asian LDCs have benefited from their location in the world's fastest-growing region. The recent dynamism of the larger Asian economies, in particular India and China, has spilled over into neighbouring LDCs. The average growth rate across the Asian LDC subgroup has thus increased, the output expansion in Cambodia and the Lao People's Democratic Republic having been particularly rapid. The largest LDC, Bangladesh, has not performed as well as might have been hoped. This is partly due to delays in the implementation of economic reforms.

These developments have taken place against a background of a modest overall growth in the **world** economy (with growth slightly higher than in 1995), though there has been a marked decrease in the expansion of world trade. Globally, Asia remains the fastest-growing region, despite the fact that the levels of increase have fallen slightly owing to a deceleration of export growth and a tightening of demand management in some countries. Against this background, the increases in growth in Latin America and Africa – up to 3.9 per cent from less than 3 per cent in 1995 – are all the more impressive.

In the short run, the external economic environment facing LDCs is expected to be fairly stable. Growth in the world economy is expected to remain steady during 1997, and the current sharp rise in tropical beverage prices will benefit many LDCs. Internal factors, however, are likely to be at least as important as the external environment in determining the economic performance of most LDCs. Reform programmes have been successfully implemented and savings and investment performance has improved, which suggests that the present LDC growth rates will be sustained for some time to come. Under these circumstances, peace, security and competent governance become crucial externalities if the economic recovery which has begun for some LDCs is to be sustainable and replicable throughout the LDC group.

The fact that growth rates have remained relatively strong in many LDCs is particularly encouraging in view of the unfavourable developments in non-oil **primary commodity** prices. Sluggish industrial activity in the major importing countries, oversupply and speculative trading exerted considerable downward pressure on prices. Thus, after a more or less stable first quarter in 1996 the combined dollar index of non-oil primary commodity prices steadily weakened during the remainder of the year; and from a 1990-1995 annual average growth rate of 2.6 per cent, it fell by -4.3 per cent in 1995-1996. Of particular concern to LDCs were declines in tropical food prices (15 per cent) and minerals (13 per cent). Precipitous falls in the prices of coffee and copper (over 20 per cent) were of special concern, although the fall in the price of coffee (26 per cent) was not as catastrophic as had been feared, because of low stocks and voluntary production ceilings set by the members of the Association of Coffee Producing Countries.

The decline in primary commodity prices draws attention to the vulnerability of many LDCs to trends on the world market. However, a few LDCs, such as Madagascar, have managed to **diversify** into areas with higher growth potential, and are beginning to reap the rewards of an active commodity diversification programme.

The fact of the only slight drop in LDC growth is encouraging also because of the trend towards **declining aid flows** to LDCs. In 1992, DAC member countries allocated 0.09 per cent of GNP to LDC development assistance. In 1995, that share had fallen to just 0.06 per cent, the lowest on record. This was despite record flow levels for all developing countries in 1995 (particularly private flows) and a commitment in 1990 at the Second United Nations Conference on LDCs to increase the aid flow level. LDCs have also suffered because the purpose of aid flows has shifted towards short-term emergency relief projects, away from longer-term development programmes.

LDCs' external debt burden continues to be a constraint on their capacity to accelerate development; it limits imports, and dampens prospects for larger private capital inflows. In almost half of the LDCs, outstanding debt continues to exceed GDP.

The most important recent development in debt relief for LDCs came at the annual meeting of the World Bank and International Monetary Fund in September 1996, with the endorsement of the **HIPCs initiative** – the heavily indebted poor countries initiative. This initiative provides a useful framework for implementing a strategy of burden sharing among all creditors to reduce the HIPCs' debt to a sustainable level. Debtor countries will have to show a record of good policy performance over a six-year period. Unfortunately, however, because of this requirement, few LDCs appear likely to benefit from the initiative in the first instance, far fewer than the original list of potential beneficiaries appeared to indicate. This delay will represent a lost opportunity for the revival of output growth in many LDCs.

AGRICULTURE

Part Two of this Report discusses agriculture. Most LDCs have tended to neglect the agricultural sector despite its significant contribution to their GDP. This Report argues that to be able to attain and sustain high growth rates, LDCs will have to prioritize agriculture as part of their overall growth strategies. A dynamic agricultural sector will almost certainly lead to more broadly based and equitable development, given the huge importance of agriculture in LDCs as a source of food and livelihood for a large majority of the population.

There are four compelling reasons for LDC governments to prioritize the agricultural sector. *First*, enhanced agricultural growth will increase the incomes of the LDCs' rural populations, thereby contributing to poverty reduction and qualitative improvements in rural life. *Second*, increased rural incomes will expand domestic markets. *Third*, to maintain current levels of food consumption, agricultural growth and/or food imports must keep pace with prevailing high population growth rates. *Fourth*, a dynamic agricultural sector would provide the basis for agro-processing industrialization, which could enhance employment opportunities in both urban and rural areas.

A strong and well-developed agricultural sector is also a means to **broader developmental ends**. While there are marked differences in the experiences of the more advanced developing economies of Asia, a number of them, including Malaysia, the Republic of Korea and Thailand, significantly enhanced the efficiency of their agricultural sectors as a prelude to their industrialization drive. Indeed, in almost all these economies, progress in the manufacturing sector was preceded by steady growth in the agricultural sector, spurred on by investments in new agricultural technologies, combined with land reforms, particularly in the case of the Republic of Korea. To a large extent, increases in agricultural productivity and growth, and progress in tackling the basic problem of "entitlements" (i.e. poverty and food security), were a prerequisite for the push towards industrialization in the more advanced Asian developing economies.

Of course, there is always a danger that important differences will be papered over when one is extrapolating from one context to another. Nonetheless, the East and South Asian experience suggests certain lessons. One such lesson is that the correction of distortions in agricultural pricing is a necessary but not a sufficient condition for attaining high and sustainable agricultural growth rates: there are other **"non-price" factors** which must also be tackled simultaneously. In view of the scarcity of resources, LDCs may have to aim first at a dynamic agricultural sector, thus laying the foundation for a steady build-up into an industrialization phase.

A viable long-term agricultural strategy would include at least six main components:

- sound macroeconomic policies which emphasize *inter alia* trade liberalization and a realignment of exchange rates to realistic levels;
- a reduction in direct taxation of agricultural output, particularly of export crops;
- "appropriate" agricultural technology which allows productivity increases in an environmentally sustainable manner sensitive to the social and economic contexts of LDCs;
- programmes to alleviate constraints on the adoption of technological innovations (e.g. shortage of credit, and weak rural physical and social infrastructure);
- an efficient agricultural marketing system, including well-functioning markets for inputs and outputs;
- strengthened institutional support, e.g. extension services, research into staple or food crops, and soil and water management.

While private investment may be required in areas such as marketing of inputs/outputs, and credit provision, LDC governments must take the lead in providing other facilities, e.g. research and extension. Not only are such services "public goods", but also they are unlikely to be provided to any degree by the inevitably underdeveloped LDC private sector. This has implications for donors and the international community: almost all LDCs lack the necessary skills and resources to undertake the huge investments involved in implementing the strategy outlined above without external assistance. This underscores the need for enhanced financial and technical assistance.

Why is there agricultural stagnation in LDCs?

The long-term problems of LDC agriculture are partly explained by **historical factors**. Traditional production relations, rudimentary technology, the mode of access to, and ownership of, land, and a context of low and unreliable rainfall (particularly in African LDCs) have all played a part in the underdevelopment of the sector. The primary weakness of LDC agriculture, however, lies in **government policies** which have been inimical to the development of a strong agricultural sector. These include overvalued domestic currencies, state intervention in agricultural marketing, overtaxation of agricultural exports, and urban bias (the consequence of which is poor rural infrastructure and lack of basic facilities in rural areas). There has also been a **lack of political commitment** to an efficient institutional agricultural framework. Consequently, agricultural extension systems have proved ineffective and inefficient, and research into high-yielding varieties and environmental management has been negligible.

State intervention in agricultural input supply, processing and marketing has created many distortions and inefficiencies in agricultural trade. **High levels of protection** for domestic industry, under import substitution industrialization policy, have increased the cost of manufactured inputs. Administered prices, for various crops whose marketing is controlled by government, are often insufficient to cover total costs of production, and agricultural exports are discouraged by heavy explicit taxation and overvalued domestic currencies. The net effects of these policies are reduced profit margins, insufficient incentives to adopt new technologies and a low level of private sector investment in agriculture, all of which have significantly impeded the growth of LDC agriculture.

Possible impact of the Uruguay Round Agreement on LDC agriculture

The Uruguay Round of GATT trade negotiations, which initiated a programme of agricultural trade liberalization, was predicted to have significant consequences not only for the resolution of the problems mentioned above, but also for more general agricultural development in LDCs. However, analysis of the impact of the Uruguay Round on traditional export commodities (which constitute the bulk of LDCs' agricultural exports) suggests that the **effects are likely to be modest**. This is mainly because the Uruguay Round Agreement on Agriculture (URAA) proved to be less comprehensive than had been expected when negotiations began; and while significant reforms of the rules governing agricultural regimes in developed countries have been carried out, the degree of overall trade liberalization achieved has been rather limited.

LDCs have considered the potential for vertical diversification into processed agricultural products. Such diversification offers a real opportunity to develop endogenous capacity and is far more profitable than the export of raw agricultural goods. Unfortunately, moves in that direction tend to be restricted by tariff escalation and the Agreements on Sanitary and Phytosanitary (SPS) Measures, and on Technical Barriers to Trade (TBT). There are two main reasons for

this. First, despite the general reduction in tariff escalation, a number of product chains important to developing and least developed countries are still subject to considerable tariff escalation. Second, only those LDCs that can access the necessary technical assistance to enable them to meet the high standards set under the SPS and TBT Agreements will be able to take advantage of the increased transparency of the rules governing the application of sanitary and phytosanitary standards.

Fortunately, there were a number of **concessions to LDC agriculture** in the URAA, in addition to the special and differential treatment clauses incorporated into the various Agreements of the Uruguay Round itself, and the provisions in favour of LDCs in the Marrakesh Ministerial Decisions. These provisions collectively suggest that there is significant scope for the adoption of support measures to ensure that the impact of world market price volatility on domestic markets is mitigated.

Overall, the major obstacle to development in the LDC agricultural sector is not a lack of demand for produce, but rather the fact that there are severe institutional and macroeconomic **impediments to an increase in supply**. Thus, the LDCs most likely to derive the greatest benefits from the URAA are those which undertake the necessary adjustments to their production structures in order to ease their supply-side constraints and implement outward-oriented policy measures. The success of this is partly dependent on the willingness of the international community to provide the necessary financial and technical assistance to support such reforms. Under these circumstances, LDCs currently implementing structural adjustment programmes are likely to have some advantage over the others.

Food security

Although food security is primarily a problem of access by individuals or households to food (entitlements), agricultural growth – and especially food production – has a significant impact on food security in LDCs. This is because the majority of the food-insecure live in rural areas, earn a substantial share of their income from agriculture, and obtain at least some of their nutritional requirements directly from their own food production. On the basis of the most widely available measure of food security at the national level (the daily per capita energy supply, or calories per day), very few LDCs meet even the barest **minimum levels of food consumption** necessary for ensuring that all of their populations have access to adequate nutrition. Daily energy supplies are very low in more than half of the LDCs for which data are available, and in many LDCs access to food has become more difficult since the mid-1980s. The main reason for chronic inadequate nutrition is widespread poverty, household or individual incomes being insufficient to enable people to command access to their daily food needs. (In LDCs, however, poverty and food insecurity are often associated with internal conflict; these are explored in further detail below.)

Equitable income growth is essential for reducing chronic food deficiency in LDCs. As the majority of the poor are rural farmers, policies which promote agricultural and rural development will also enhance food security by raising incomes and reducing poverty. This is demonstrated by Burkina Faso, which has made significant progress in improving food security through rural development. Furthermore, LDCs should put in place mechanisms to protect the food security of individuals and households in the event of adverse shocks such as droughts by protecting the productive assets and livelihoods of vulnerable groups. Recently, however, the most significant threat to the food security of the populations of LDCs has come not from deficiencies in agricultural policy, but rather from complex emergencies caused by internal conflict. Therefore, the most effective policy for increasing food security in certain LDCs is the promotion of peace.

The environment-agriculture nexus

Sustainable agricultural development in LDCs is inextricably linked not only with food security issues but also with environmental concerns. The greatest level of environmental degradation in LDCs is to be found in those areas where population pressure, poverty and food insecurity are intense. Although many of the arguments in the 1987 Brundtland Report, which focused the attention of the international community on the links between poverty and environmental degradation, have been the subject of some controversy, the central thesis that **poverty and environmental degradation** are linked has been conceded.

Two broad groups of causes of rural environmental degradation in LDCs have been identified which link the most severe environmental problems in many of these countries to the agricultural sector. The first group – systemic causes – relates to the context in which farming is carried out, including a combination of policy and market failures, social

and political instability, and population pressure. The second group – "technical" causes – relates to the use of "inappropriate technology" within a context of shortage of suitable agricultural land which has led to encroachment on marginal and fragile lands and to the overuse of open access resources.

The absence of any simple solution reflects the complexity of the problem. A traditional response to agricultural land degradation has been to increase the area of land under cultivation, thus increasing the extent of environmental destruction. Unless resources can be used more intensively and sustainably, environmental degradation will almost certainly continue in many LDCs, particularly in the more densely populated areas of Ethiopia, Madagascar and Uganda, and in the Sahelian countries. Any policy package to stem environmental degradation will be largely dependent on external resources, either through transfers or through training, since most LDCs have neither the expertise nor the financial capacity to tackle by themselves the complex links between environmental and agricultural priorities.

Rural credit

A serious impediment to private investment in yield-enhancing and environmentally sound agricultural technologies in LDCs is the **limited supply of formal agricultural credit**. Despite extensive policy efforts to enhance rural credit supply in LDCs, rural financial markets remain very poorly developed, with the majority of the rural population, including small farmers, having very limited access to formal sector credit. The extension of credit by governments at subsidized interest rates has failed to promote rural development for several reasons, in particular because much of the credit disbursed was channelled to the larger farmers or richer sections of the rural population and repayment rates were very low. Recent financial reform programmes implemented in many LDCs are directed at liberalizing financial markets with a view to improving financial intermediation. These programmes have also involved attempts to establish innovative rural financial institutions (RFIs) to serve the needs of small farmers and the rural poor.

Policy should emphasize the creation of **financially sustainable RFIs** rather than attempts to directly control resource allocation in financial markets. This includes designing appropriate mechanisms for delivering financial services to the rural poor and smallholders, adequate incentives for managers and staff, training of staff, safeguards against abuse by insiders, as well as the legal and regulatory framework governing rural financial markets. If RFIs are allowed to allocate and price rural credit according to commercial criteria, this should increase efficiency and reduce the extent to which the benefits of cheap credit are usurped by larger farmers using political and social influence.

It is crucial that government and donors support the development of innovative RFIs capable of serving the rural poor. These institutions are likely to require significant levels of subsidy and probably technical assistance, especially in the early stages of their operation when their costs will be high because of staff training, high rates of default due to lack of knowledge about borrowers and to the inexperience of staff, and high outreach costs. Costs should fall over time as the RFI gains both experience and more detailed knowledge of its client base, and as the number of borrowers and the average loan size increase. Also, efforts should be made to assist the development of existing informal and semi-formal financial institutions, such as savings and loans companies and credit unions. Further assistance for the poorest borrowers, who do not possess suitable collateral, may be offered through group lending schemes.

It is important that governments resist the temptation to write off loans disbursed by government-sponsored or government-owned RFIs (such loans having been written off in several LDCs), since this practice merely encourages borrowers to default. The prevailing social, economic and geographical conditions in most LDCs make the development of efficient rural financial markets difficult, but with appropriate policy measures, carefully tailored to local conditions, access by small farmers and the rural poor to financial services can be improved.

Economies in regress

Development has proved elusive for a significant number of LDCs during the last 10 years. In fact, these countries have experienced regress: their economies have declined, social conditions have worsened markedly, and they have become increasingly marginalized from the mainstream of the world economy. Regress is not the result of a temporary cyclical economic downturn but is a chronic process with important structural characteristics, particularly the degradation of state and social institutions. In the worst cases of regress, the entire state apparatus has disintegrated amid civil strife.

Part Three of this Report examines the nature, extent and developmental consequences of regress and state failure for the LDCs concerned, for their regional partners and for the wider international community. It emphasizes the need for effective policies to tackle regress in LDCs, and the important role which LDCs' regional partners and the international community can play. It recognizes that many of the problems faced by economies in regress are highly complex and intractable, and that international action has not always been successful. Nevertheless, it argues that the international community and regional partners cannot afford to ignore these problems and that there are concrete measures which can be taken to address them. External assistance can help to prevent state collapse in LDCs where institutional deterioration is not too advanced. In countries afflicted by internal conflicts, the regional and international community can play a vital role in brokering peace and supporting the reconstruction of social and economic structures necessary for development.

UNCTAD's interest in this subject arises because regress has major consequences for development in LDCs, for their regional partners, and for the development strategies pursued by aid donors and the international community. Just as we have learned from the experience of successful development in DCs, so it is important to draw lessons from those countries in which development has been retarded, in order to devise appropriate policies.

The nature of regress: Institutional decline and state failure

Regress in LDCs is manifested in the deterioration of a range of **economic and social indicators**, including per capita output, food availability, access to education, health status and war-related mortality and displacement. For example, between 1980 and 1994, 22 LDCs suffered falls in per capita GDP – measured in constant price dollars – of more than 10 per cent, and 12 of them had falls of more than 20 per cent. Moreover, as was argued in *The Least Developed Countries, 1996 Report*, many of the LDCs have become marginalized from the mainstream of the world economy, particularly from international trade and investment flows. Even inflows of international aid have fallen dramatically for some LDCs, because of the collapse of state structures through which aid can be disbursed and utilized. In many of these economies, private investment is deterred by political instability, lack of security and the disintegration of physical infrastructure.

Regress is not confined to LDCs – it has afflicted non-LDCs in Africa, and countries in South-East Europe and Central Asia – but severe regress and state failure have been more prevalent among the LDC group than elsewhere.

Regress is a **heterogeneous phenomenon** encompassing varied and often complex processes. There are important differences between individual LDCs in terms of the nature of regress, its scale and its causes, which means that generalizations are not always appropriate. Nevertheless, the deterioration of political and social institutions – the state and civil society – appears to be central to the process of regress in most cases. In particular, a crisis of governance characterizes most of the economies in regress. The State's capacities to provide essential public services, to maintain security throughout its territory, to mediate between competing interests, and to provide a stable economic and legal framework for the growth of the private sector and civil society have been severely eroded. The State's revenue base has also contracted in many cases. Regress is best understood as a process in which the deterioration of state capacities, the weakening of civil society and economic decline interact to reinforce one another, fuelling a downward spiral of economic, social and political decline.

Internal conflict

The most extreme cases of regress involve armed internal conflict. Over one-third of the countries in the LDC group have experienced some form of violent civil strife since 1980, with high (predominantly civilian) mortality, the displacement of large numbers of people from their homes and livelihoods, and the destruction of infrastructure and productive assets. In many countries, agriculture has been particularly badly affected because farmers have been driven from their land by fighting. Problems persist even after the fighting has ended. One major obstacle to the resumption of normal economic activity, for example, is the presence of anti-personnel mines on agricultural land. Not surprisingly, countries afflicted by internal conflicts have recorded a markedly worse economic performance than those that have remained peaceful. Complex humanitarian emergencies – famines and other humanitarian crises caused primarily by internal conflicts – have occurred in several LDCs and have attracted widespread international concern and, in some cases, intervention by the international community.

Implications of regress

While state failure, the deterioration of social institutions and internal conflict have become major obstacles to development in many LDCs, their consequences often extend beyond international borders. The destabilizing effects of refugee flows, disruption of transport routes, the spread of ethnic conflicts, increased banditry, drug trafficking and the undermining of investor confidence can encompass entire regions. The civil war in Mozambique, for example, caused economic losses to the other countries of the Southern African region which are estimated to have amounted to approximately 7 to 8 billion dollars a year during the 1980s. There are obvious humanitarian motives for some form of action by the international community and regional partners to help LDCs tackle these problems. In addition, the magnitude of the potential economic costs of state collapse and internal conflicts indicates that huge benefits could accrue from effective international action to ensure peace, stability and the maintenance of effective state structures. The international community cannot afford to ignore the problems of regress, nor can it afford to delay effective action until regress has degenerated into a humanitarian crisis. Moreover, regress is **not an irreversible process**: the experience of several LDCs, including Uganda, has demonstrated that peace can be restored and that economies and state structures can be rebuilt, even after prolonged and devastating civil war.

How can the international community assist economies in distress?

While the need for international assistance is evident, there are few obvious or easy solutions to the problems of regress. Policy responses should reflect the particular circumstances of individual countries. However, because institutional decline – and especially the deterioration of state capacities – is a major factor in most cases of regress, providing support for the building and strengthening of institutions is clearly an important area in which the international community can play a positive role.

Preventing state collapse

In the majority of LDCs the State has not collapsed, but in many countries there has been a significant decline in state capacities to provide basic economic and social services, as noted above. In some of these countries, further deterioration might eventually lead to state collapse. A priority for the international community, therefore, should be to help these LDCs **strengthen the State** (and elements of civil society where necessary) before further institutional deterioration threatens more serious consequences.

The international community should provide financial and technical assistance to strengthen state capacities in these LDCs. Assistance can take the form of training of personnel, funding to ensure that public servants receive adequate salaries, the provision of equipment, and technical assistance to expand the State's revenue base. The training and education of the army and police in order not only to enhance their technical capabilities, but also to foster the development of an ethos of civic loyalty and responsibility, would be especially valuable in many countries.

The international community should also provide assistance and incentives to **support democratization in LDCs**. It should assist in the creation of political, bureaucratic and legal structures which enhance transparency and accountability, strengthen the linkages between the government and the people, and encourage popular participation in politics. The objective must be to foster the development of States that are democratic and embrace all sections of society, and at the same time are able to provide the basic public goods and services essential to economic and social development. It is encouraging that more democratic forms of government have been introduced in a number of LDCs in recent years. Democracy is not meant to be a panacea for all the economic problems of regressed economies, but non-democratic governments have a very poor record in LDCs, and democratic political structures are more likely to be conducive to the long-term management of complex social and ethnic conflicts. International agencies can play a valuable role in monitoring the evolution of state and social institutions in LDCs so that timely assistance can be given to prevent institutional decay.

Reconstructing war-torn economies

A number of LDCs are currently recovering from major civil wars, having managed to put in place a political settlement of the conflict. The primary challenges facing these countries are to consolidate peace, integrate former combatants into civilian life, rehabilitate productive capacity and infrastructure, revive the economy, and rebuild state and civic institutions. Reconstructing war-torn economies is a difficult but not impossible task. In view of the destruction of

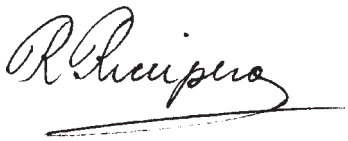
the economic, human and natural resource base of these countries, reconstruction will require the international community to provide major financial and technical assistance programmes.

Conclusions

The key message of this part of the Report is that urgent action by the international community to help LDCs tackle the widespread problems of economic and social regress, state failure and internal conflicts in LDCs should be a priority. The potential human and economic costs of regress are enormous, and not confined to the regressed economies themselves. Effective action to tackle these problems will require the investment of substantial resources by the international community to strengthen institutions and state structures in LDCs, support peace-keeping, provide humanitarian assistance and rebuild war-torn economies.

Throughout this process, the international community must pay attention to the actual situation in these countries, nurturing and reorienting indigenous capacity where possible. This will require an extended policy engagement, and demand a high level of resource deployment. Although these costs may seem high, they are quantifiable and can be planned for, unlike the almost certainly higher costs imposed by continued conflict and regress. It is in the long-term interests of all parties to try to reverse regress – and with a broad, well-funded, politically balanced and sensitive policy package, there is every hope that, in time, regressed States will be back on a path to sustainable development.

If effective policies to tackle regress are to be designed, a comprehensive, multi-disciplinary analysis of the causes and dynamics of regress is essential. Such an analysis should focus on drawing from the experience of regressed economies the relevant lessons for the policies and strategies of LDC governments, donors and international organizations.



Rubens Ricupero
Secretary-General of UNCTAD

Part One

Global Economic Developments and LDCs

Recent Developments and Outlook

Chapter I

A. Introduction

World output growth accelerated from 2.4 per cent in 1995 to 2.8 per cent in 1996. This happened despite higher oil prices and a marked deceleration in the volume growth of world trade – from 10 per cent in 1995 to 4.6 per cent in 1996. Growth in developing countries (DCs) increased from 4.8 per cent in 1995 to 5.6 per cent in 1996, with a notable acceleration of growth in Africa, where economies expanded on average at the rate of 3.9 per cent, compared with less than 3 per cent the previous year. The economies of Asian DCs continued to expand vigorously, although the average growth rate was lower than in 1995.

Growth among LDCs was relatively robust in both Africa and Asia, although growth rates declined in the former in 1996. GDP growth in the 33 African LDCs was estimated to have averaged 4.6 per cent in 1996 (compared with 5.4 per cent in 1995), while the average growth rate of the Asian LDCs rose slightly – to 4.8 per cent in 1996 (see table 1).

The prospects for continued growth in the world economy in the short term are reasonably good. There is little evidence of the type of serious macroeconomic imbalances (increasing inflation, fiscal deficits, etc.) that usually precede and signal economic downturns. There were substantial decreases in median inflation rates in DCs, and especially the economies in transition. Moreover, long-term interest rates have declined in a number of major developed countries, and this should facilitate increased investment.

Among developed market economies (DMEs), DCs and transition economies there were significant disparities in growth performance – disparities due partly to cyclical factors (i.e. countries at different stages in their economic cycles), partly to differences in policies, which are often magnified by globalization, and partly to longer-term structural trends.

TABLE 1: GDP REAL GROWTH RATES
(Percentage per annum)

	1990-1994	1995	1996
All LDCs	3.1	5.2	4.7
African LDCs	2.9	5.4	4.6
Asian LDCs	3.9	4.6	4.8
Memo items:			
Developed market economy countries	1.6	2.0	2.3
Developing countries	4.6	4.8	5.6
World	1.6	2.4	2.8

Source: UNCTAD secretariat calculations, based on Economic Commission for Africa, 1997, Asian Development Bank, 1997, and IMF, 1997.

B. Developed market economies

Output growth averaged 2.3 per cent in the DMEs in 1996, compared with 2 per cent the previous year. Japan enjoyed an economic recovery in 1996: GDP growth of 3.5 per cent, the highest since 1991, was boosted by a depreciation of the yen, an expansionary fiscal stance and very low domestic interest rates. The United States experienced its fifth consecutive year of economic growth, with an output rise of 2.5 per cent in 1996, higher than the rate recorded in 1995. This prolonged expansion has reduced unemployment levels in that country to almost 5 per cent. The strength of the economy contributed to an appreciation of the dollar and a substantial rise in equity prices.

Very weak rates of economic growth and high unemployment continued to affect the larger economies of continental Europe.

The United Kingdom, which was in the fourth year of its cyclical upturn, recorded a growth rate of 2 per cent in 1996, compared with 2.4 per cent the previous year. Growth was driven by buoyant domestic demand. In contrast, growth was sluggish in the larger European Union (EU) countries of continental Europe, where domestic demand remained relatively weak for a variety of reasons, including fiscal retrenchment and a lack of consumer and business confidence. Output growth rates in 1996 declined in Germany, France and Italy to 1.4 per cent, 1.3 per cent and 0.7 per cent respectively. The importance of these economies was reflected in a slowdown in overall EU growth – from 2.4 per cent in 1995 to 1.5 per cent in 1996. Interest rates were reduced in most EU countries in order to stimulate demand and to offset the impact of the fiscal restraint required to enable countries to meet the Maastricht convergence criteria for the planned single currency. More buoyant economic conditions prevailed in some of the smaller EU countries: Finland, Greece, the Netherlands, Portugal, and especially Ireland. Outside the EU, the Swiss economy failed to recover from what has become a very prolonged recession.

Because of a combination of weak output growth, structural and technological changes, and rigidities in labour markets (such as employment regulations which increase the cost of employment), unemployment remains a major economic and social problem in the EU, exceeding 10 per cent of the workforce in Belgium, France, Germany, Ireland and Italy, and over 22 per cent in Spain. Unemployment rates increased once again in both France and Germany in 1996.

In the Asia-Pacific region, Australia's growth rate rose to 4 per cent, while that of New Zealand fell to 2.7 per cent.

Inflation was very subdued in most of the DMEs despite a 20 per cent rise in crude oil prices: consumer price inflation averaged 2.4 per cent in 1996, compared with 2.6 per cent the previous year. Inflation rates were below 4 per cent in 1996 in most of the DMEs, with the exception of Greece. They are likely to remain at these moderate levels in 1997. The prevalence and the persistence of low inflation in the DMEs are due to a number of factors: weak demand growth leading to excess capacity in many countries, particularly in continental Europe; supply-side changes, which have removed some of the rigidities in other economies, allowing them to grow faster and for longer without stimulating inflationary pressure on wages and prices; and the anti-inflationary credibility which monetary authorities have earned since the 1980s. In both the United Kingdom and the United States, monetary policy has recently been tightened recently in response to concern that, after prolonged expansions, capacity constraints and continued strong demand growth have begun to exert greater upward pressure on wages and prices.

C. Central and Eastern Europe

There were wide disparities in economic performance among the countries of Central and Eastern Europe. Several of these countries, mainly those of the former USSR, have suffered a severe and prolonged contraction in their economies during the 1990s. This contraction appears to have at least eased in Russia and Ukraine, although output growth rates were still negative in 1996. Output in the Russian economy declined by 2.8 per cent in 1996, compared with 4 per cent the previous year, while output in the Ukrainian economy fell by 10 per cent in 1996 following a 12 per cent contraction in 1995.

The economic recovery in most of the Eastern European countries had begun in 1993/94 and the majority of them achieved positive output growth rates in 1996, although there was great variation between countries. Growth rates were highest in Albania (although its economy will have been badly damaged by the violent social unrest which began in early 1997, triggered by the collapse of pyramid savings schemes), the Slovak Republic and Poland. There were large falls in GDP in both Bulgaria and Moldova.

Inflation rates fell substantially in most of the economies in transition. The median consumer price inflation rate fell from 46 per cent in 1995 to 24 per cent in 1996, and although 10 countries had inflation rates of more than 100 per cent in 1995, only three had inflation rates of this magnitude in 1996.

D. Developing countries

Output growth rates in DCs were stronger in 1996 than in 1995 – GDP growth averaged 5.6 per cent compared with 4.8 per cent – and while the Asian DCs continued to record the highest growth rates by a substantial margin, there was a narrowing of the regional disparities in growth rates due to a small decline in the latter in Asia combined with an acceleration in each of the other regions.

African developing countries

African countries achieved a considerable improvement in their economies in 1996, manifested in higher output growth and export earnings, and lower inflation. GDP growth rose from 2.8 per cent in 1995 to an average of 3.9 per cent in 1996. Output growth in Africa had been stagnant throughout the early part of the 1990s but began to pick up in 1994. The acceleration in 1996 suggests that the continent's recovery has started to gather some momentum. The impact on poverty and employment, however, is likely to be limited unless growth rates accelerate further.

As a group, African developing countries experienced an improvement in their economies in 1996, with higher output, higher export earnings and lower inflation.

African export earnings rose by almost 9 per cent in 1996, boosted by higher oil prices and increased levels of production of oil and several other important export commodities. The economic recovery has been accompanied by a reduction in consumer price inflation rates in Africa: the average inflation rate fell to 25 per cent in 1996, down from 32 per cent in 1995 and 37 per cent the previous year.

Several factors contributed to the strengthening of growth rates in Africa in 1996, although higher commodity prices were not a factor in most countries: with the exception of crude oil, the prices of most of the export commodities of major importance to Africa fell in 1996. The return of good weather, following

droughts, facilitated recovery in the agricultural sector; output is estimated to have expanded by over 5 per cent, with very strong growth in cereal production, especially in North and Southern Africa. There were also production increases in some of the major export crops: coffee, cocoa and tobacco. Both oil and mineral production increased in a number of African countries as a result of recent investments which have been stimulated by, *inter alia*, buoyant mineral prices and the enactment of legislation strengthening legal guarantees and rights for investors.

The economies of the Communauté financière africaine (CFA) franc zone were given a stimulus by the CFA franc devaluation of 1994, which boosted the competitiveness of their traded goods sectors (see box 1). Output growth rates rose sharply in the CFA zone following devaluation: from 2.6 per cent in 1994 to 4.7 per cent in 1995 before falling to 4.1 per cent in 1996. Inflation rates had risen in these countries after the CFA devaluation, but by the end of 1996 inflation had fallen sharply – to 6 per cent from 15 per cent in 1995.

Much of the recovery achieved in Africa since 1994 is attributable to the delayed impact of economic policy reforms, which many African countries first began to implement in the 1980s. The reforms have brought about more competitive exchange rates, a reduction in macroeconomic imbalances (especially lower fiscal deficits and lower inflation) and greater opportunities for the private sector due to market liberalization. Although private investment rates remain low in Africa, there was an increase in net FDI inflows in 1996 to over $5 billion, the highest level recorded during the 1990s.[1]

Asian developing countries

Asian developing countries remain the strongest-growing economic group in the world, though output growth rates decreased slightly and there was a marked slowdown in export growth rates.

Asian DCs (excluding China) registered an average GDP growth rate of 6 per cent in 1996, down from 6.4 per cent in 1995. Despite the slowdown, Asia remains the most dynamic region in the world economy. Growth decreased in the largest economies, e.g. China, India, Indonesia and the Republic of Korea, as well as in Malaysia, Singapore and Thailand, although China was still able to achieve an increase of almost 10 per cent in its output. The Philippines and Pakistan registered higher growth in 1996 than in 1995. The Pacific island DCs, a group which includes several LDCs, experienced a recovery in 1996, with growth of 2.8 per cent following a decline of 1 per cent the previous year. Regional inflation rates fell from an average of 11.8 per cent in 1995 to 6.6 per cent in 1996, as a result of more restrictive demand management policies in several Asian DCs.

There were two main reasons for the slowdown in the region. First, exports, which had expanded very rapidly in 1994 and 1995 (at over 20 per cent per annum), grew much more slowly (at around 5 per cent) in 1996. The decline in export growth rates was most marked in China and Thailand, but was not confined to those countries. The slowdown in export growth has been attributed to several factors: stagnation in the global electronics market (which is an important sector for Asian exporters); appreciation of real effective exchange rates in Asia due to the nominal appreciation of the dollar (to which many Asian DC currencies are linked), combined with relatively high domestic inflation; and a loss of comparative advantage among Asian exporters in labour-intensive products (Asian Development Bank, 1997, pp. 10-18).

The second reason for the decline in growth rates in the region was that several countries, especially in South-East Asia, implemented more restrictive fiscal and monetary policies to dampen excessive rates of monetary and domestic de-

Box 1: The impact of currency devaluation on the economies of LDCs in the franc zone

In January 1994, the 14 African member countries of the franc zone collectively agreed to a currency devaluation. The CFA francs used by seven countries in the West African CFA franc zone and six countries in the Central African CFA franc zone were devalued by 50 per cent against the French franc, while the Comorian franc was devalued by 33 per cent. One aim was to redress the loss of competitiveness of the traded goods sectors of the franc zone African countries, to restore external viability and macroeconomic balance, and to strengthen the credibility of their economic policies. The other aim was to strengthen the two CFA franc zone monetary unions by enhancing the momentum of economic integration.

The devaluation gave LDCs in the franc zone the opportunity to stimulate domestic production of exports and import substitutes, improve the balance of payments, and allocate scarce resources more efficiently. In addition, it enhanced access to international financing facilities and gave an impetus to regional trade. However, it also presented difficulties: it had inflationary implications and increased the burden of servicing external debt for governments and enterprises. To enhance the opportunities, and alleviate the negative consequences, of the devaluation, a set of adjustment policies (or so-called accompanying measures) were implemented, including monetary and credit policies, as well as wage, producer and consumer price policies. Significant international support also helped to ease the adverse effects of devaluation. The LDCs benefited from debt cancellation by several bilateral creditors (mainly France), substantial and concessional reschedulings by Paris Club creditors, and increased bilateral assistance (mostly from France) and stand-by arrangements, as well as, later on, from the Enhanced Structural Adjustment Facility arrangements of the International Monetary Fund. The initial impact of devaluation was to raise domestic prices, but monetary and credit restraint subsequently reined in inflation, reducing it from 32 per cent in 1994 to 12 per cent in 1995 and about 6 per cent in 1996. This enabled the real exchange rate to depreciate and strengthened external competitiveness, particularly in agriculture, where the share of labour in total costs is relatively high and the share of imported inputs is low.

The devaluation also enabled producer prices for exports to be raised by between 50 and 100 per cent, stimulating increased production of export crops. During 1994-1996, the franc zone LDCs' exports increased by about 20 per cent and imports by 16 per cent. This reduced their trade deficit from an average of 6.5 per cent of GDP in 1993 to an estimated 3.7 per cent of GDP in 1996. However, the impact of the devaluation has been uneven among the different countries of the franc zone. Unlike the economies of the LDCs that are cotton exporters (Benin, Burkina Faso, Chad, Mali and Togo), Niger's economy has not received a strong impetus from the devaluation: the economy has a very limited range of exportable goods, and world prices for uranium, the country's main export, remain depressed.

The real growth rates of the nine LDCs in the franc zone rose following devaluation. Average GDP growth rose from 1 per cent per annum during 1990-1993 to 4.3 per cent in 1994, 5 per cent in 1995 and 4.2 per cent in 1996. The economies of these countries have expanded more rapidly during the last three years than at any time since the 1970s. Gross domestic savings appear to have increased from 3 per cent of GDP in 1993 to about 8 per cent in 1996. Gross domestic investment increased from 15 per cent of GDP in 1993 to 19 per cent in 1996. There were also some improvements in the fiscal balance.

In some LDCs the devaluation exacerbated the deterioration in living conditions and contributed to social unrest. Strikes occurred in Chad and Equatorial Guinea, civil unrest in the Central African Republic and a coup d'état in Niger.

As a result of the devaluation, trade within the African area of the franc zones has increased rapidly as the products of the franc zone countries have become more competitive *vis-à-vis* non-area imports. The governments of the CFA franc countries have tried to accelerate the process of subregional integration within the framework, established in 1994, of the two groupings: Union économique et monétaire ouest africaine (UEMOA) in the West African region of the zone, and Communauté économique et monétaire en Afrique centrale (CEMAC) in the Central African region of the zone. The subregional integration effort aims to promote consistency in macroeconomic policies, facilitate the emergence of broader markets and encourage labour and capital mobility. One of the important conditions for intensifying the momentum provided by the devaluation, with the objective of transforming the two monetary unions into full-fledged economic unions, is the creation of "safety nets" for the LDCs in the zone, especially the land-locked countries, to protect some of their industries which have survived until now largely because of import barriers.

mand growth in the face of widening current account deficits and asset price inflation. Current account deficits, financed partly by borrowing on the international capital markets, were exacerbated by the export slowdown, and there were concerns that these deficits were too large to be sustainable. Problems also began to emerge in the banking and financial sectors of some of the Asian countries, notably Indonesia, the Philippines, the Republic of Korea and Thailand, because of non-performing loans and declines in asset prices.

Western Hemisphere developing countries

Output growth in the Western Hemisphere DCs recovered in 1996 after falling sharply the previous year when the economies of several countries in the region were disrupted by financial market instability. Average GDP growth rates of 3.2 per cent were estimated for 1996, as compared with the 0.5 per cent for the previous year.

Several countries, particularly the countries of the Southern Cone and Mexico, achieved strong export growth, which contributed to the higher GDP growth rates achieved in 1996. The Mexican economy rebounded, after the contraction it suffered in 1995, with growth of 5 per cent in 1996, while growth exceeded 4 per cent in both Argentina and Uruguay in 1996. Demand restraint had slowed economic growth in Brazil since 1994, but the economy began to pick up again in the second half of 1996, and growth of 3.2 per cent was recorded for the year as a whole. Chile continued to record impressive growth rates: GDP expanded by 7.2 per cent in 1996.

DCs in the region also succeeded in reducing inflation, with average consumer price inflation rates falling to 20 per cent in 1996 from 36 per cent in 1995, as a result of tighter monetary and fiscal policies.

E. Least developed countries

Preliminary estimates indicate that GDP growth rates in the LDCs for which data are available averaged 4.7 per cent in 1996, compared with 5.2 per cent the previous year. This figure excludes several countries afflicted by internal conflicts, from which reliable data are not available. Were these countries to be included, average growth rates would probably be lower. There was a fall in the growth rate of African LDCs, from 5.4 per cent in 1995 to 4.6 per cent in 1996, and a slight increase in that of the Asian and Pacific island LDCs from 4.6 to 4.8 per cent.

African LDCs

Several African LDCs have generated strong growth rates over the last few years as a result of consistent implementation of economic policy reforms.

The 4.6 per cent growth rate estimated for the African LDCs in 1996 implies that per capita output rose for the second consecutive year, following a very long period in which per capita output levels declined. But there were significant disparities in performance between individual African LDCs (as well as between individual non-African LDCs). A number of African LDCs which have consistently implemented economic reforms and avoided serious political instability and civil strife have begun to generate consistent growth rates which enable significant increases in per capita incomes: this group includes Cape Verde, Lesotho and Uganda. In contrast, LDCs which have been unable to resolve serious internal conflicts, maintain political stability and consistently implement necessary economic reforms have experienced, at best, continued economic stagnation and, at worst, economic collapse.

The economic performance of African LDCs in 1996 was shaped by factors similar to those discussed above in the context of African DCs, i.e. the positive impact of economic reforms, the devaluation of the CFA franc and more favourable weather for agriculture, especially in East and Southern Africa.

The recovery of the agricultural sector from drought in 1995 contributed to economic growth in countries such as Ethiopia, Malawi, Mozambique and Zam-

bia. Ethiopia recorded a record grain harvest for the second year in succession. But localized droughts reduced harvests in parts of Cape Verde, Eritrea and Somalia, necessitating increased food imports or food aid, while the effects of civil strife disrupted agricultural production in parts of Burundi, the eastern part of the Democratic Republic of the Congo, Liberia, Rwanda, Sierra Leone, Sudan and Uganda.

Output growth in the nine LDCs which are members of the CFA franc zones is estimated to have averaged 4.2 per cent in 1996, lower than the 5 per cent estimated for 1995.[2] All the CFA zone LDCs achieved positive GDP growth in 1996, and all except Chad, Mali and Togo registered an acceleration of growth rates over the 1995 levels. Growth rates of 5 per cent were estimated for Benin and Burkina Faso. The 16 per cent growth in the economy of Equatorial Guinea was largely attributable to the expansion of oil production in that country. As noted above, the economies of the CFA zone countries were stimulated by the devaluation of the CFA franc in 1994, especially because of the boost this gave the traded goods sector (see box 1). Production of cotton, a major export commodity of several of the CFA zone countries, expanded vigorously in Benin, Burkina Faso, Chad, Mali and Togo in 1995/96, contributing to the significant rise in export earnings which all five of these countries have recorded during the last two years.

The devaluation of the CFA franc in 1994 gave a strong boost to export and GDP growth in the CFA zone LDCs.

Outside the CFA zone, the economies of several of the LDCs which have been consistently implementing economic reforms for a number of years continued to make progress in 1996, with growth rates of 4.5 per cent or more recorded in Lesotho, Malawi, Mauritania, Uganda and the United Republic of Tanzania. These countries also improved the performance of their economies in terms of export earnings and lower inflation rates, or consolidated gains made in 1994/95. The United Republic of Tanzania reached agreement with the IMF in late 1996 on a new Enhanced Structural Adjustment Facility loan. This is expected to prompt donors to increase aid and debt relief, providing further support for the country's economic recovery.

African LDCs in which major civil conflicts have recently been halted have begun to embark on the process of economic recovery. These include Angola, Ethiopia, Mozambique and Rwanda, all of which were also able to achieve relatively robust rates of output growth in 1996.

In contrast to the welcome improvements in the economies of many of the African LDCs, several of them were badly affected by internal conflicts. The conflicts in Burundi, the Democratic Republic of the Congo, Liberia, Somalia and Sudan had destructive effects on those countries' economies, although little data are available to quantify this. Burundi suffered in 1996 its fourth consecutive year of economic contraction. Political instability also had adverse economic effects in the Central African Republic.

Asian LDCs

The average growth rate of the Asian LDCs rose slightly in 1996, but remained significantly lower than the regional average for DCs. Buoyed by strong growth in agriculture, Bangladesh grew at 4.7 per cent in 1996, compared with 4.5 per cent in 1995, which was relatively low by regional standards, but was able to reduce consumer price inflation from 6 to 3 per cent. An acceleration of growth in Bangladesh has been impeded by delays in the implementation of economic policy reforms.

Economic growth has been very robust in the Lao People's Democratic Republic over the last three years, although it was accompanied by a sharp rise in inflation and a widening trade deficit. GDP growth of 6.9 per cent was estimated for 1996, compared with 7.2 per cent in 1995. Poor weather for agriculture contributed to a reduction in output growth in Cambodia from 7.6 per cent in 1995 to 6 per cent in 1996. Growth also slowed in Myanmar – from 9.8 per cent in 1995 to 6 per cent in 1996 – despite good harvests. Good weather for agriculture facilitated a marked acceleration in Nepal's growth rate, from 3.4 per cent in 1995 to 6.1 per cent in 1996. Bhutan's economy grew by 4.7 per cent in 1996, compared with 6.5 per cent the previous year.

Among the Pacific and Indian Ocean island LDCs, there was robust growth in 1996, in excess of 6 per cent in Maldives and 4 per cent in the Solomon Islands.

Haiti

Haiti, the only LDC in the Western Hemisphere, experienced an economic slowdown in 1996, with GDP growth falling to 2 per cent from 4 per cent the previous year. The lack of political consensus regarding economic reforms and associated delays in aid disbursements, combined with continued social unrest and insecurity, adversely affected the economy.

F. Short-term prospects for the least developed countries

There is reason to be cautiously optimistic about prospects for the majority of LDCs, not least because of promising price forecasts for relevant primary commodities and an increasing momentum of economic growth.

Forecasts of short-term prospects are generally difficult to make with any degree of confidence. This is particularly true for LDC economies, which are especially vulnerable to unpredictable exogenous shocks (such as bad weather or price fluctuations on world commodity markets). Furthermore, these economies often suffer from structural impediments, such as high and variable transport costs (see box 2), which complicate analysis of near-term economic prospects. Nonetheless, there are grounds for cautious optimism for African LDCs, at least for those countries which are able to avoid civil strife and political instability. This optimism is based on several factors. First, world prices for tropical beverages rose steeply in the first half of 1997, and this will provide a major boost to export earnings, government revenue and domestic savings in many African LDCs. Second, the good weather which is forecast for 1997 should allow favourable agricultural harvests. Third, the economic recovery in many of the African LDCs, which has resulted from the sustained implementation of economic reforms, has begun to develop some momentum over the last two years. The commitment to reforms which governments in the region have demonstrated should enhance confidence among private sector business and provide a stimulus to investment. Private investment rates in Uganda, for example, climbed above 10 per cent of GDP in 1996. Several other LDCs have begun to attract major foreign investment in the mining and oil sectors: these include Angola, Equatorial Guinea and even the Democratic Republic of the Congo (despite the recent turmoil). As these investment projects come on stream, they will provide an important addition to foreign exchange earnings and a stimulus to growth in those countries over the medium term.

The Asian LDCs have the considerable advantage of being located in the most economically dynamic region of the world. Provided that they can contain macroeconomic imbalances, deepen their economic reforms and avoid political

Box 2: The impact of high transit transport costs on the economies of land-locked developing countries

The impact of high transport costs on the foreign trade of land-locked countries has two distinct aspects. First, land-locked countries incur high costs because of the sheer distance involved in transporting goods from ports to their destination. One very rough measure of the relative size of the potential transit cost burden to a land-locked country is the length of the shortest route from the country's capital or other main city to the nearest seaport. In Afghanistan, Chad, Niger, Zambia and Zimbabwe, these distances are in excess of 2,000 kilometres. Such distances exacerbate the effects of problems such as inefficiency in transit and inflated costs of transport inputs. These problems are also faced, to a lesser degree, by certain large coastal developing countries when transporting goods to inland markets. The second aspect of increased transit transport costs applies exclusively to land-locked countries, and arises from the necessity to cross international boundaries. Border crossing increases freight charges since it involves the transaction costs of dealing with at least two governments.

Although further study is required in order to reveal the extent and nature of the effect of high transport costs in any given context, certain determinants seem, a priori, very significant. First, the lack of adequate physical infrastructure is a clear and direct determinant of higher transport costs. The absence of a robust and safe road and rail network hugely increases the cost (and insurance premiums) of transit. Second, companies with monopolies on the transportation of goods charge inflated prices for their services, and are often protected by the State. Third, formal and informal institutional interference, such as difficult and arbitrary regulation and the frequent stopping of transports at checkpoints, reduces the efficiency of transits. Fourth, there is a lack of intraregional cooperation between governments in the development of mechanisms to reduce transaction costs. Finally, the existence of "protective" policies, such as taxes on fuel or on imported lorries or goods wagons, indirectly - but again clearly - affect transit costs.

Significantly, analysis of the costs and benefits of transit routes often reveals that costs arise in one country (the transit country) while benefits accrue to many countries (including land-locked ones). This suggests that transit transport improvement projects are best handled in a regional framework, so that project priorities and financing arrangements can accurately reflect all the costs and benefits, as well as being sensitive to the payment capacities of all beneficiaries.

At a regional level, the greatest increases in efficiency and reduction in real costs are likely to come through a holistic effort to improve a range of institutional, procedural, regulatory, managerial and other non-physical dimensions of the movement of goods across borders. These issues have, to some extent, been tackled through the development of a range of sophisticated techniques for facilitating trade movements and customs procedures and for simplifying documentation requirements, assisted by international bodies such as UNCTAD. Such techniques will need to be integrated into a wider strategy to reduce the burden on already impoverished LDCs.

instability, the prospects for accelerating economic growth over the medium term must be favourable, at least for the mainland countries.

G. Salient features of recent trends in the commodity economy of relevance to the LDCs

World prices of LDCs' non-oil exports fell sharply in 1996.

Non-oil primary commodity price developments were on the whole very unfavourable to LDC exports in 1996. Sluggish industrial activity in the major importing countries, oversupply and turmoil due to speculative trading exerted considerable downward pressures on prices. Thus, after a more or less stable first quarter the combined dollar index of non-oil primary commodity prices started to weaken quite steadily during the remainder of the year and the declines were very steep for the non-oil commodity groups of interest to LDC exports: tropical food prices recorded a fall of over 15 per cent, while the prices of minerals fell by almost 13 per cent and those of agricultural raw materials by nearly 10 per cent (see table 2). On an individual commodity basis, the declines were particularly significant for coffee and copper (see below).[3]

TABLE 2: PRIMARY COMMODITY PRICES FOR DEVELOPING COUNTRIES
(Annual average growth rates, percentages)

	1985-1990	1990-1995	1995-1996
All food index	3.2	3.3	1.5
Tropical beverages	-9.2	8.4	-15.7
Food	8.6	1.4	6.9
Agricultural raw-materials	6.2	3.5	-12.2
Minerals, ores and metals	8.2	0.2	-12.7
Combined index (in terms of current dollars)	4.9	2.6	-4.3
Coffee (composite indicator price)	-11.7	14.1	-26.3
Tea	0.6	-4.3	8.9
Copra	-9.8	13.7	11.5
Tobacco	5.4	-4.9	15.1
Cotton	10.6	1.5	-7.9
Jute	-6.4	-2.2	24.2
Copper	13.4	2.0	-21.8
Crude petroleum	-4.0	-5.2	20.7

Source: UNCTAD, *Monthly Commodity Price Bulletin*, various issues.

The major exception to this bleak picture was petroleum prices, which rose quite steadily throughout the year and by December averaged over $23 a barrel,[4] i.e. almost $6 higher than the level prevailing 12 months earlier. Low levels of inventories and robust demand growth due to a long cold winter contributed to buoy oil markets. The steady rise in oil prices also reflected continued production restraint by OPEC member countries and shortfalls in supply from non-OPEC sources. Additionally, the much delayed resumption of oil exports from Iraq (under Security Council resolution 986) led to speculative purchases and higher prices. On current trends, however, prices can be expected to weaken in the near future because of oversupply, but there is major uncertainty regarding growth of non-OPEC production, which suffered from technical problems during 1996.

It is testament to the progress of LDCs that much growth in 1996 occurred against a background of generally unfavourable primary commodity prices.

In sharp contrast to oil prices, the prices of other major commodities of export interest to the LDCs dropped very sharply in 1996. Thus, throughout much of 1996 expectations of a large coffee crop coming from Brazil contributed to weakening prices despite a tight supply situation, which was itself a result of Brazil's low level of exports following damage to plantations due to frosts and drought during the summer of 1994. On average, coffee prices declined by some 26 per cent in 1996. On the whole, however, prices were less volatile than expected thanks to both low stocks, especially in consuming countries, and the export ceiling adopted by the Association of Coffee Producing Countries (ACPC). But there were diverging trends in coffee prices, as these fell more for robusta than for arabica because of the large supply increases in the former type of coffee. The more favourable arabica price movements owed much to the ACPC's self-imposed export quotas, which contributed to limiting supplies. Robusta supplies, on the contrary, were plentiful, because of considerably expanded production by major suppliers. Supplies from Uganda, for example, had been growing rapidly thanks to increased planting of new high-yielding varieties. In fact, producers were responding to market liberalization policies which brought about an increase in their share of the export price. In the near future, ample supplies can be expected to weaken prices further; but much will depend on expectations concerning Brazil's crop, which may well fall short of last year's level. Over the longer term, concerns about low earnings encouraged a number of producers to explore the gourmet market more thoroughly. Thus, much hope was attached to increases in the sales of specialty coffee, and producers have

been encouraged lately by the noticeable increases in consumption in major markets, especially the United States, where gourmet coffee accounted for the bulk of these increases.

Copper prices were particularly volatile in 1996, with a pronounced downward trend during most of the year. In fact, prices sometimes plunged abruptly in a matter of hours. The consequences of a major Japanese company's losses due to unauthorized trading compounded the already weak market trends caused by oversupply and moderate demand growth. In particular, the expectations of a large stock disposal by Sumitomo added pressures to the prevailing sluggish market trends. On account of improved consumption and lower stocks, however, prices recovered somewhat towards the end of the year, but there is a risk that they may weaken again in the coming months as demand is expected to slow down considerably, especially in North America, while demand in Western Europe may continue to be very sluggish and to grow only moderately in East Asia. Despite the low prices, investments with expected high future production continued, especially in Latin America.

Cotton prices were also declining quite steadily throughout 1996; their recovery towards the end of the year was very modest and for the year as a whole averaged about 8 per cent lower than in 1995. Production by traditional growers is expected to decline on account of low prices and competition for planting area by other, more remunerative crops, but large increases in production may be forthcoming from other growers, including those in West Africa, where many countries in the CFA zone were still adjusting to the recent devaluation. Increases in production were also expected in Southern Africa and Australia, and thus the consumption-production gap can be expected to narrow in the near future.

LDCs such as Madagascar have made substantial progress in diversifying their exports.

Repeated gyrations of primary commodity export prices are a constant reminder that highly commodity-dependent economies are most exposed to market vagaries and the concomitant instabilities in foreign exchange earnings. Their national incomes also suffer from sizeable losses due to deteriorations in the terms of trade. The least developed countries are no exceptions. In recent years, however, a few have demonstrated an ability to break away from past practices and to diversify into more promising export activities with high potentials for growth and development. One notable example is Madagascar, whose agricultural policy is geared to improving the quality and at the same time limiting the growth of output of those export crops which are faced with quotas or long-term demand problems. The country is also investing in the development of new export crops, such as oilseeds, soybeans and cashew nuts. Moreover, its fishing exports, which include lobster, prawn and shrimp, are also thriving. Thanks to its fast rate of expansion, especially since the mid-1980s under the stimulus of foreign direct investment, seafood, especially prawns, has become an important foreign exchange earner. The industry can be expected to continue its rapid expansion, provided that additional refrigeration facilities are forthcoming and transport problems are solved. Another promising new activity is the processing of agricultural products, which was supported on the demand side by both the domestic market and the market in the neighbouring islands.

The erosion of earnings from main export commodities, especially coffee, has prompted Uganda to renew efforts to diversify. An example of its successful drive is the fast-growing exports of fish, which have overtaken the exports of the traditional cotton and tea industries in terms of foreign exchange earnings. This is an activity whose full growth potentials remain to be exploited, since as of 1995 only nine of the country's 20 industrial fish-processing plants were opera-

tional. On the whole, the country's performance in non-traditional exports, i.e. those other than coffee, cotton, tea and tobacco, has been most remarkable. Not only have exports of maize and beans been doing well, but also there is in general a promising future for the country's food crop exports to regional markets such as neighbouring Kenya. Moreover, these exports are particularly attractive to producers as cash crops because of their higher farm-gate returns compared with returns on traditional export crop production in a situation of low global prices.

Uganda's food producers appeared to have benefited considerably from favourable regional trade arrangements, especially the Common Market for Eastern and Southern Africa, and the concomitant growing importance of regional food markets. The rapid rate of expansion of the country's other non-traditional exports, including fish and fish products, cattle hides and sesame, should be a stimulus for further diversification.

Good weather boosted harvests in 1996, but food insecurity continues to threaten many countries in sub-Saharan Africa and some LDCs in Asia.

In sharp contrast to the major declines in their export prices, least developed countries' import prices, especially those of grains, rose considerably in 1996, particularly during the first half of the year. The price increases during 1995-1996 were particularly rapid after three seasons of relative stability. Grain prices rose in response to concerns about crop prospects in some major producing countries and about the low global stocks. For importing countries, the higher prices had meant larger import bills and strained balances of payments. Increases in grain prices, however, do not always have a complete pass-through to local markets. The extent of domestic price responses depends, among other things, on the degree of import dependence, domestic supply conditions, changes in exchange rates, and trade policies in general. But the 1995-1996 cereal price increases did give rise to sharp increases in local currency prices, i.e. the actual prices paid by consumers in many developing countries. They were most pronounced in Latin America. In Africa, however, the only country where the price of wheat rose markedly was Sudan, whose food production also suffered from the adverse effects of insecurity and floods.[5] In most developing countries, the domestic supply situation played a preponderant role in mitigating the recent price increases and the smaller price increases were in fact observed in countries with good harvests. This was particularly true of African countries where cereal harvests were normal or above normal in 1995/96. To counter the imported inflation due to higher grain prices, offsetting measures were also widely adopted by governments which rely mostly on trade-related measures, e.g. increased import quotas and/or tariff reductions. In some countries, consumer subsidies were also increased to soften the impact of price rises. Although grain prices started to ease during the second half of 1996 as the extent of the increase in grain production became more certain, prices – especially those of wheat and maize – still averaged more than half again as high as those prevailing in 1995. Stocks were still low by historical standards, and the risk of some rebound in grain prices due to an unforeseen increase in import demand or an unfavourable crop outlook still exists.

Notwithstanding the low incidence of recent grain price inflation, severe food shortages continued to threaten many countries in sub-Saharan Africa and some least developed countries in Asia despite a general improvement in food supplies in 1996.[6] Their causes are diverse and include civil strife, devastating floods and crop failures. While overall food supplies for the 1996/97 season have improved in sub-Saharan Africa, some 40 per cent of the population is chronically undernourished. The food supply outlook remains particularly precarious in several parts of the Great Lakes Region, where the flows of refugees have put considerable pressure on the already fragile food situation in the re-

gion. The presence of large refugee camps also adversely affects agricultural production, and agricultural activity suffers as well from the uncertain security situation in the whole area. Assistance continued to be needed in Burundi, the Democratic Republic of the Congo and Rwanda. The food security situation remains critical in parts of West Africa where pockets of famine have developed following a sharp reduction in food production and serious disruption of relief distributions. At the same time, natural disasters, including floods and insect damage, continued to devastate cereal crops elsewhere, especially in Somalia. There was some recovery in food production thanks to the beginning of the peace process in Sierra Leone, but production levels in that country remain below the pre-civil strife average. Despite good harvests, large population displacement will require substantial imports into Angola and Mozambique. Food production prospects were also uncertain in many LDCs in Asia. In particular, shortages of farm inputs continued to affect food production in Afghanistan, while in Yemen a large number of people are in need of relief assistance. The food situation is also precarious in the Lao People's Democratic Republic, where severe floods have caused considerable damage to crops.

The vulnerability of certain African and Asian LDCs to food shortages is exacerbated by natural disasters and complex emergencies.

At the global level, cereal production recovered significantly in 1996, thus leading to a substantial replenishment of aggregate carry-over stocks, but these may still remain below minimum safe levels for the foreseeable future. All in all, another good cereal crop in 1997 is needed for global food security.

Notes

1 IMF, 1997, p. 63.
2 Data from the Economic Commission for Africa (1997).
3 Owing in part to the fact that the upvaluation of the dollar export prices of manufactures rose only marginally in 1996.
4 Average of Dubai, United Kingdom Brent and Alaska N Slope crude prices. See UNCTAD, 1997.
5 See FAO, 1996, p. 23.
6 The African countries facing exceptional food emergencies included Angola, Burundi, Chad, Eritrea, Ethiopia, Kenya, Liberia, Mauritania, Mozambique, Rwanda, Sierra Leone, Somalia, Sudan and Zaire. See FAO, 1997.

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Chapter 2

Recent Trends in Development Finance and External Debt

A. Introduction

There have been important changes in external financing for the developing countries as a whole since the beginning of the 1990s, notably with private investment increasing significantly, and total resource flows growing steadily. Flows to all developing countries reached a new record level in 1995. These developments, however, have hardly affected the LDCs at all. In their case, resource flows have remained stagnant in current dollar terms so far throughout the 1990s, and diminished in real terms. There has been no perceptible increase in private financing flows, with the contribution of private capital remaining modest in volume and fluctuating significantly. For LDCs, dependence on official development assistance (ODA) continues unabated, and the overhang of external debt servicing obligations continues to be an important drain on resources.

The share of aid to LDCs in the combined GNP of the donor countries which are members of the OECD's Development Assistance Committee (DAC) dropped from 0.09 per cent in 1990 to 0.06 per cent in 1995, in stark contrast with the aid targets and commitments adopted at the Second United Nations Conference on the LDCs in 1990, which indicated a significant increase in assistance to these countries during the current decade. This development follows the decline in overall ODA supply over this period. In addition, emergencies and humanitarian assistance needs (in both LDCs and other crisis areas) have diverted the attention of the international community and have apparently crowded out support for regular development programmes in LDCs. Meanwhile, LDCs' financing needs remain high because of the urgent need to overcome structural constraints and low human development.

A number of LDCs are now emerging from periods of civil strife and unrest, and have engaged in programmes of rehabilitation and reconstruction, and others are undertaking renewed efforts to implement structural adjustment and reform programmes in cooperation with the international financial institutions. As the creditworthiness of many LDCs is affected by their debt problems and as their general debt-servicing capacity is limited for a variety of reasons, most of these countries continue to have very limited access to private capital markets for the time being. Consequently, external assistance will need to be in the form of ODA. While the aid targets set in 1990 have become difficult to reach, the possibility of setting "aid recovery targets" – with the objective of regaining the ground lost during the first half of the decade – should perhaps be considered. Moreover, efforts to relieve LDCs' debt burden need to be undertaken without delay, in order to allow those countries to reap benefits from their economic reform programmes and the favourable developments in the world economy.

Securing an adequate share of available ODA resources, enhancing aid effectiveness and lessening aid dependence over time are major challenges confronting the LDCs in the future. Measures in this area need to go hand in hand with efforts to increase external receipts through enhanced export-earning capacity and to mobilize domestic resources for development and investment. Apart from mobilizing and managing traditional ODA flows, the following would be key elements in a comprehensive external financing strategy for LDCs:

- calling on non-traditional donors;
- creating the conditions for increasing foreign direct investment (FDI) and equity investment flows;
- significantly reducing the debt-servicing burden.

This chapter reviews total resource flows to LDCs; the implementation of ODA targets for LDCs and the outlook for aid; trends in ODA flows; resource mobilization for individual LDCs; and the external debt situation of these countries and new initiatives in the area of debt. Box 3 – on the aid programme of the Republic of Korea – describes the experience of one non-traditional (or "emerging donor") country, while issues relating to foreign private investment in LDCs are discussed in box 4.

B. Resource flows

Total resource flows and net transfer of resources to LDCs

The pattern of external financing for the LDCs stayed broadly unchanged throughout the first half of the 1990s. ODA from the DAC donor countries continued to account for nearly all the flow of external resources to LDCs. Net ODA flows from OPEC countries and agencies, which accounted for 7 per cent of total ODA flows in 1985, steadily diminished in relative importance and became negligible after 1991.

Despite record levels of financial flows to developing countries, LDCs have experienced a fall in real terms.

Table 3 summarizes available information on long-term resource flows and the net transfer of resources to LDCs. Throughout 1990-1994, the net transfer of resources (including technical assistance), according to these figures, remained substantial and relatively stable at a level of $14 to $15 billion annually in current dollar terms. However, in real terms, there has been a marked decline in ODA and in total flows, particularly in 1995 (see annex table 19). Moreover, this level of resource transfer was maintained only through exceptional financing in the form of debt relief and the accumulation of payments arrears on external debt – that is, through lower than scheduled debt service payments by many LDCs. In 1995, the level of inflows was maintained largely as a result of increased assistance to Zambia, after the completion of its rights accumulation programme with the IMF. However, after payments of arrears and debt service by that country, it appears that the aggregate net transfer of resources declined sharply and for the first time this decade fell below the level of $14 billion.

In 1995, new resource flows from DAC sources to LDCs consisted exclusively of ODA, such flows reaching a level of $16.6 billion. As there was a net outflow of non-concessional resources from LDCs totalling $0.6 billion, the recorded total flow of external resources to LDCs amounted to $16 billion on a net basis. Other official flows have diminished in importance as DAC countries as well as international financial institutions have shifted to providing mainly concessional finance to the LDCs. Consequently, repayments on past loans tend to offset any

TABLE 3: NET FLOW AND NET TRANSFER OF RESOURCES TO LDCs, 1990-1995
(Billions of dollars)

	1990	1991	1992	1993	1994	1995
ODA grants (including technical assistance) (A)	11.7	12.8	12.5	11.9	12.6	12.6
Net ODA loans (B)	4.6	3.5	4.1	3.3	3.6	4.0
Net ODA (C = A + B)	16.3	16.3	16.6	15.2	16.3	16.6
Other official flows, net (D) (excluding IMF)	0.7	-0.0	0.0	0.3	0.3	-0.1
Private export credits, net [a] (E)	-0.5	-0.4	0.1	-0.6	-1.1	-0.4
Other private capital flows, net [a] (F)	0.6	0.3	0.3	1.0	0.6	-0.1
Total private (G = E + F)	0.2	-0.0	0.4	0.4	-0.5	-0.5
Total net flow of resources (C + D + G)	17.2	16.3	17.0	15.8	16.1	16.0
Interest payments on long-term debt	-1.8	-1.7	-1.3	-1.2	-1.3	-1.9
Net purchases under IMF non-concessional facilities	-0.5	-0.3	-0.2	-0.1	-0.0	-0.5
Net transfer of resources [b]	14.9	14.3	15.5	14.5	14.8	13.6
Memo item:						
Net accumulation of arrears on debt service payments	4.6	4.6	4.0	4.9	5.6	3.6

Source: UNCTAD estimates, based on data from the OECD, IMF and World Bank.
a From OECD/DAC countries.
b Excluding profit remittances on FDI.

new inflows. There has also been a consistent outflow on account of private export credit over the past decade. Trends in aggregate private flows to the LDCs from DAC sources, especially as regards investment flows, are largely determined by transactions with a few countries (notably Angola and Liberia), and flows tend to fluctuate from year to year. Direct investment flows from DAC countries to LDCs as a group amounted to only $0.1 billion in 1995 (see chart 1.A and annex table 19).

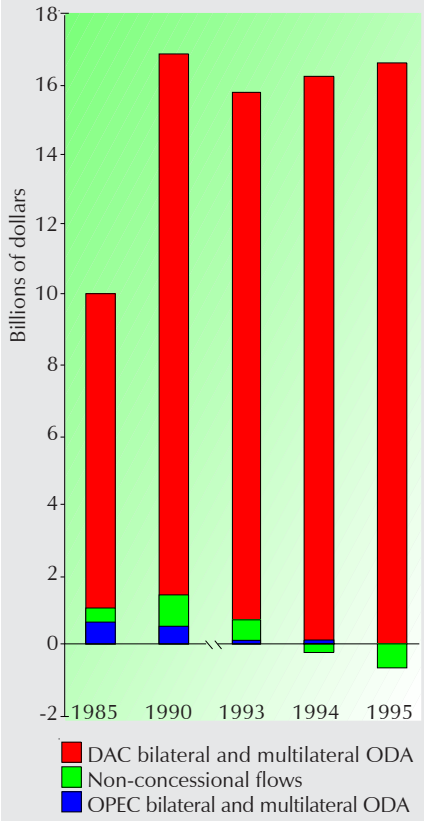
Information on resource flows to and from LDCs is not fully comprehensive. In particular, table 3 provides only partial information on resource flows from sources other than DAC countries and multilateral agencies mainly financed by them, and on private capital flows. Data on flows of development finance from OPEC countries and agencies are no longer available on a systematic basis as in earlier years. Neither are data currently available on grants from non-governmental organizations, which are important actors in development cooperation, and on ODA and other economic cooperation between LDCs and the former countries of the Council for Mutual Economic Assistance as well as other developing countries. A number of more advanced developing countries have set up their own aid programmes, with LDCs amongst others as potential beneficiaries. Moreover, other developing countries may be an important source – actual and potential – of private investment for LDCs. The UNCTAD database on foreign direct investment flows, which is based mainly on balance-of-payments data, indicates considerably higher flows of FDI to the LDCs than do the DAC figures, e.g. a net inflow of $1.1 billion in 1995 (of which $0.4 billion was to Angola). On the other hand, available information also points to substantial profit remittances from LDCs. Attracting non-DAC flows to LDCs and promoting foreign private investment to these countries should be given priority in view of the sluggish outlook for ODA from DAC countries and the need to ensure LDCs' external financing needs over the longer term.

IMPLEMENTATION OF ODA TARGETS AND ODA OUTLOOK

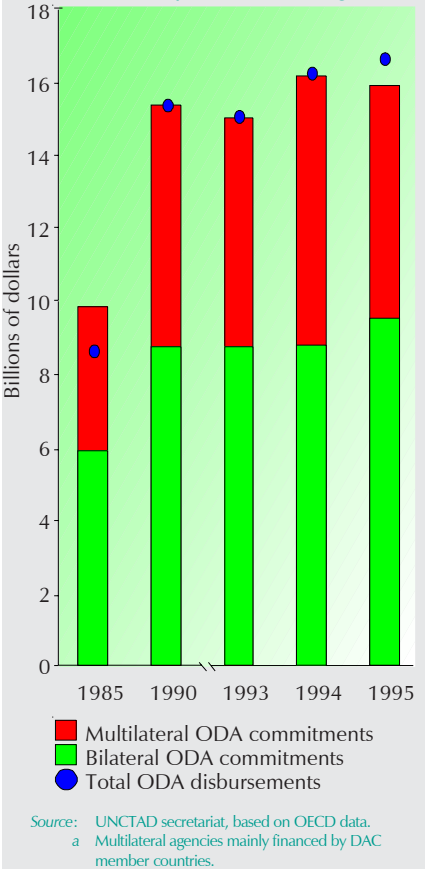
The trends in resource flows to the LDCs described above reflect the decline in ODA, particularly after 1992. Until that year, the share of overall ODA (bilat-

CHART 1: THE FLOW OF EXTERNAL RESOURCES TO LDCs, 1985-1995

A: Total external resource flows by origin



B: Total ODA disbursements and commitments by DAC member countries and by multilateral agencies[a]



Source: UNCTAD secretariat, based on OECD data.

a Multilateral agencies mainly financed by DAC member countries.

eral disbursements to developing countries as a whole[1] and contributions to multilateral organizations) in the GNP of the DAC member countries had stayed stable over a long period, and disbursements were growing steadily in current dollar terms. Overall ODA peaked at $61 billion in 1992, representing 0.33 per cent of the combined GNP of the DAC countries that year. This share fell to 0.30 per cent in 1993 and 1994, and to 0.27 per cent in 1995, the lowest ratio recorded since the United Nations adopted in 1970 the overall ODA target of 0.7 per cent of donor countries' GNP.

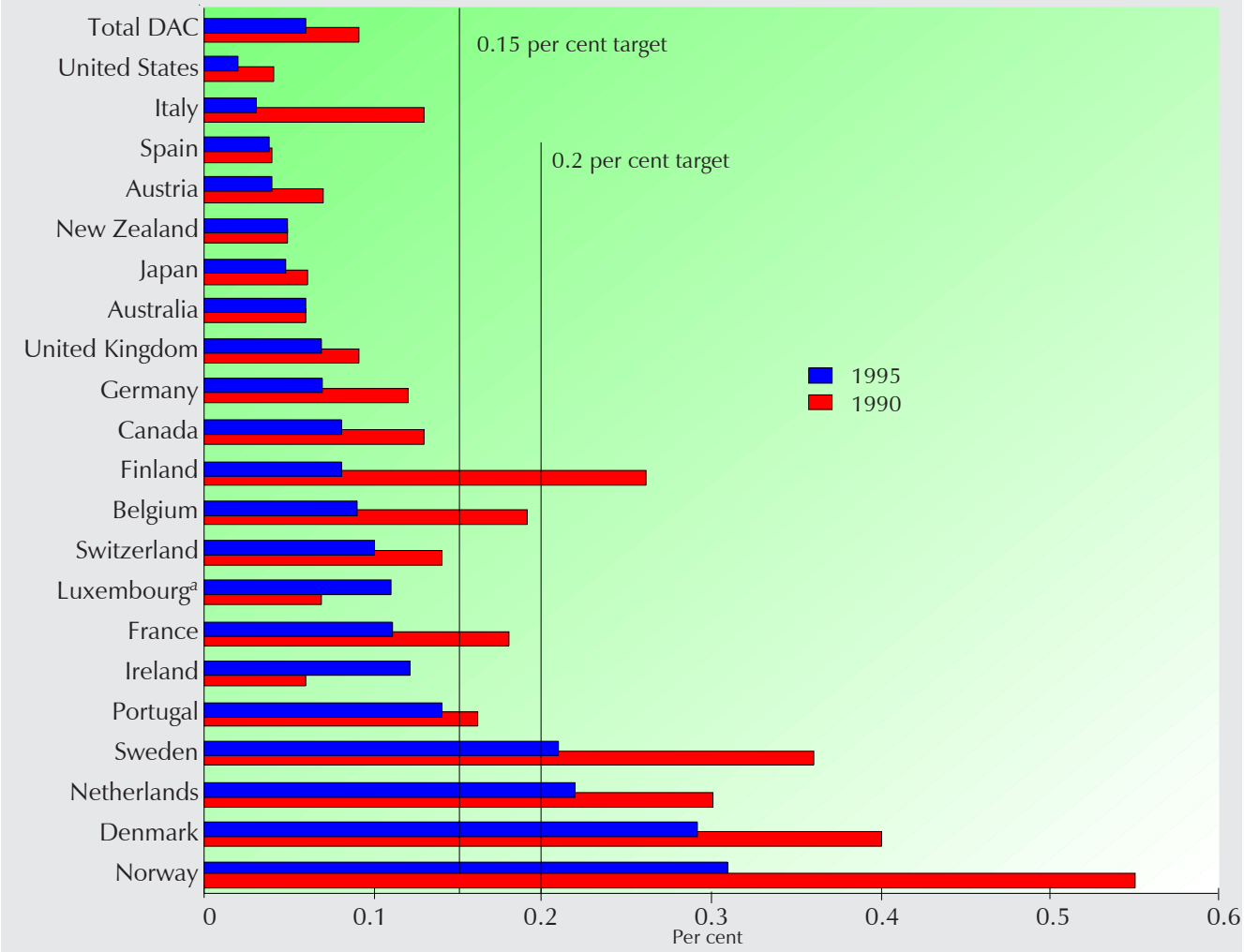
Although policy statements repeatedly emphasize the aid needs of the poorest countries, in practice little action seems to have been taken to protect aid allocations to the LDCs or to shift resources to them. On the contrary, LDCs' share in DAC countries' total aid programmes, which was 27 per cent a decade ago (in 1984-1985), fell to 22 per cent in 1995 (down from 23 per cent in 1994).[2] The share of aid to LDCs in the combined GNP of the DAC countries also contracted significantly during the first half of the 1990s. From the "peak year" of 1992, when it was 0.09 per cent, it has fallen steadily – to 0.08 per cent in 1993, 0.07 per cent in 1994 and only 0.06 per cent in 1995.

The commitment by the international community, particularly the developed countries, to enhance aid to LDCs in order to achieve a significant and substantial increase in the aggregate level of external support to these countries, was one of the key provisions in the Programme of Action for the LDCs for the 1990s adopted by the Second United Nations Conference on the LDCs in Paris in 1990. To this end, a set of alternative aid targets and commitments were adopted to encourage donor countries to increase their efforts and improve their aid performance *vis-à-vis* the LDCs. But since 1990, a number of major international and humanitarian crises, global economic downturn, and domestic preoccupations and budgetary pressures in a number of the donor countries, have dominated aid policies. Collectively, donors have failed to meet the special aid targets and commitments for LDCs set in the Programme of Action.

Few of the DAC donor countries have improved their performance with regard to the aid targets for LDCs since 1990; in most of these countries, the share of aid to LDCs in terms of GNP ratio was lower in 1995 than in 1990.[3] Ireland and Luxembourg were the only DAC countries to improve their aid performance *vis-à-vis* the LDCs in terms of GNP ratio since 1990.[4] However, four DAC countries continue to meet the 0.20 per cent target – Norway (the top performer with an aid to LDCs/GNP ratio of 0.31 per cent in 1995), Denmark, the Netherlands and Sweden. In terms of volume, Japan, which is already the largest donor with regard to developing countries as a whole, is now also the largest aid donor to the LDCs. Its ODA contribution to them has steadily increased throughout the first half of the decade, reaching a level of $2.5 billion in 1995. Japan is followed by the United States (formerly the largest source of ODA to LDCs), France and Germany, all of which contributed over $1.5 billion in ODA to LDCs in 1995, either bilaterally or through multilateral channels. Among the smaller donor countries, Ireland, Luxembourg and New Zealand in particular were consistently expanding their aid programmes for LDCs in volume terms over the first half of the 1990s (annex table 22).

A reversal of the current trend in donor performance with regard to LDCs will require both a recovery in overall ODA and more determined efforts to reorient aid programmes towards the needs of the poorest countries. The outlook for overall ODA is still uncertain, as budgetary pressures are likely to remain strong in major donor countries and perhaps even intensify as a result of budgetary targets in the context of the establishment of the European Monetary Union. On

CHART 2: ODA TO LDCs FROM DAC MEMBER COUNTRIES, 1990 AND 1995
(Percentage of donor's GDP)



Source: UNCTAD secretariat, based on OECD data.
a Values refer to 1990 and 1994.

the other hand, more favourable economic prospects in the OECD countries over the longer term could contribute to renewed ODA growth. In his latest annual report,[5] the DAC Chairman suggested that "if overall fiscal deficits are mastered, governments can maintain or rebuild a strong and persuasive rationale for a growing development assistance effort".[6] Technical factors (e.g. the scheduled increase in contributions to international financial institutions following recent replenishment agreements) should also promote some recovery of aid flows in 1996. However, in view of the developments during the first half of the 1990s and the gloomy short-term outlook for ODA in general, achievement of the aid targets set in the Programme of Action seems far beyond reach. It may be more realistic to think in terms of "aid recovery targets" for the second half of the decade in order to regain the ground lost over the first half. In operational terms, this could be translated into each donor country's aiming as a priority at bringing back its ODA to LDCs to the relative levels achieved in 1990. Regaining a 0.09 per cent share of DAC donors' GNP would mean substantial additional resources for the LDCs, compared with the mid-decade situation.

In practice, the volume of aid that donors provide to LDCs appears not to be primarily influenced by global aid targets, but more by the policies and performance of recipient countries. Conditionalities for the provision of aid have increased, with, for instance, the dimension of "good governance" becoming an

integral part of the economic programmes required for regular development co-operation. Together with reduced ODA availability, this means that LDCs have to compete for aid resources on the basis of economic policy performance as well as political reform efforts, poverty reduction programmes and fulfilment of other conditions required by donors. In this respect, it should be noted that a number of LDCs have made and are making considerable efforts to rebuild their economies after periods of civil strife and unrest, while others are implementing structural adjustment and reform programmes with new commitment and determination. These efforts need to be supported by enhanced donor cooperation and recovery of aid flows.

Recent trends in ODA disbursements and commitments to LDCs

Latest figures for DAC member countries show that ODA as a proportion of GDP has never been lower.

As noted above, total DAC ODA flows (disbursements) to LDCs in 1995 reached a level of $16.6 billion, slightly up from the previous year in current dollar terms. However, measured in constant dollars (see annex table 19), there was a drop in LDCs' ODA receipts of some 8 per cent. Multilateral aid from agencies mainly financed by DAC countries has assumed a more important role in ODA flows to LDCs since the beginning of the decade, its share in DAC total ODA to these countries having increased from 40 per cent in 1990 to 46 per cent in 1995. In current dollar terms, it rose from $6.1 billion to $7.7 billion. During the same period, bilateral aid from the DAC countries to LDCs fluctuated around a level of $9 billion. The increase in multilateral aid flows has, however, largely cushioned variations in bilateral aid. The latter is now mostly in the form of grants.[7]

In 1995, total bilateral aid from DAC countries decreased to $8.9 billion – i.e. down by some $0.4 billion from the previous year – despite the fact that most DAC countries in 1995 broadly maintained or even increased their bilateral programmes with LDCs in current dollar terms. The overall decline in bilateral disbursements to LDCs in 1995 was due mainly to a drop in aid from the United States, as compared with a record level of disbursements by this country the previous year. The decrease in bilateral aid in 1995 was again more than compensated by an upswing in multilateral aid, most of it due to a $1 billion increase in net funding under the concessional structural adjustment facilities of the IMF, notably since Zambia's rights accumulation programme was completed (as discussed above) in December 1995. Disbursements under other multilateral programmes also increased (e.g. those of the European Union), as did net disbursements from International Fund for Agricultural Development (IFAD), while disbursements from the International Development Association (IDA) and some agencies mainly providing emergency-related aid (UNHCR and the World Food Programme) contracted.

In view of the importance of multilateral aid in financing LDCs' economic reform and development programmes, adequate funding of the soft windows of the international financial institutions and of grant-based development funds and programmes (notably those of the European Union and the United Nations) is critical for this group of countries. After protracted negotiations, agreement was reached in March 1996 on the eleventh replenishment of the IDA, followed a couple of months later by agreement on a financing package for the African Development Fund which will allow renewed lending on concessional terms from the African Development Bank after a suspension of such lending for two and a half years. However, both of these replenishments were lower than initial estimates of resource requirements. New donor contributions to the replenishment of the Asian Development Fund as initially agreed in January 1997 will also

be substantially lower than under the previous replenishment, although the level of planned operations is expected to be maintained in dollar terms through non-donor resources (principally reflows). The difficulties in reaching these agreements and continued budgetary constraints in the main donor countries point to continued uncertainties about future multilateral assistance capacities. New commitments by multilateral agencies to LDCs have already been reduced since 1992 (chart 1.B).

As can be seen in chart 1.B, trends in DAC disbursements to the LDCs have, over the past decade, closely followed trends in new aid commitments. It is significant that during the last three years commitments have tended to fall to the level of or below disbursements.

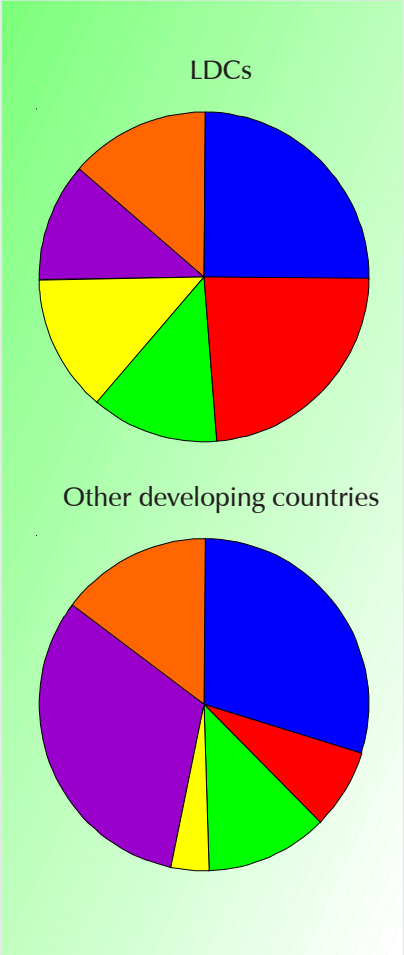
Another noticeable feature is the substantial share of emergency assistance and food aid in bilateral ODA. In 1995, food aid together with emergency assistance accounted for 24 per cent of bilateral ODA commitments (see chart 3). This was mainly due to the fact that the number of countries involved in civil war and strife increased during the first half of the decade. While overall ODA remains stagnant, concerns have been raised about a possible diversion of aid from development purposes to emergency programmes.

Against the background of a general decline in ODA, it is sometimes argued that the stagnation of aid to the LDCs results from the fact that many of these countries have been or are in a situation of civil war and strife, which has disrupted the development cooperation process. However, an analysis of ODA trends in three different groups of LDC recipients (those not affected by war and with a relatively strong economic performance, those not affected by war and with sluggish growth and those involved in war and civil strife) shows that ODA is stagnant or declining for all groups. For the first group, comprising 11 LDCs not affected by civil war and strife and with a relatively strong economic performance, ODA is tending to decline. The second group, comprising 21 LDCs not affected by civil war and strife and with sluggish growth, have seen their ODA increase. However, if the particular case of Zambia, which as seen earlier received a substantial increase in aid in 1995 under new arrangements with the IMF, is excluded, ODA is tending to decline in that group as well. Finally, the third group – comprising 16 LDCs affected by civil war and strife – recorded only a marginal increase in ODA from 1991 to 1995, with a peak in 1994 (see chart 4).

It thus appears that the only group which did not see a declining trend in ODA is the third group. This lends some support to the assertion that there has been a diversion of aid to LDCs towards emergency assistance programmes.

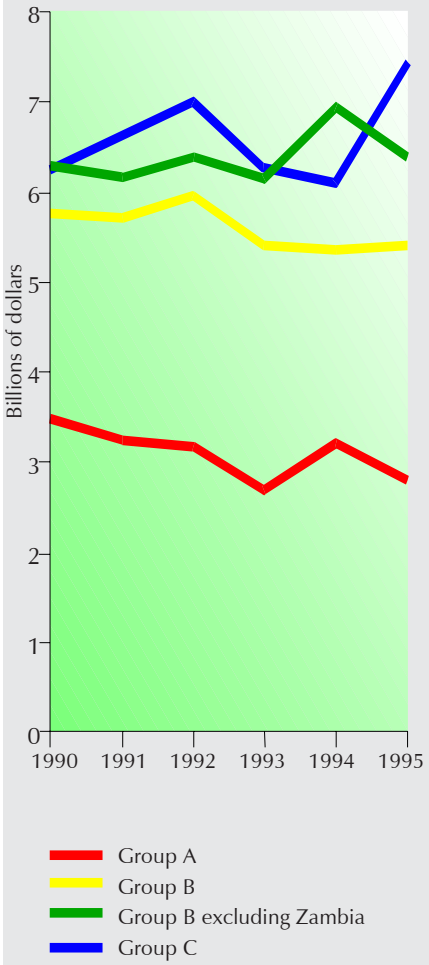
Data on the composition of multilateral aid similar to those presented in chart 3 are not available. However, UNHCR and the World Food Programme, whose activities were largely emergency-related in 1995, together provided $1.1 billion in assistance to the LDCs, representing almost 15 per cent of total multilateral disbursements in these countries in that year. In 1994, seen as the peak year for emergency assistance overall, the corresponding amount disbursed by these two agencies in LDCs and their share of multilateral aid were even higher (the latter close to one-fifth of total multilateral assistance to the LDCs). Substantial amounts for emergency aid can also be assumed to have been spent under other multilateral programmes.

CHART 3: BILATERAL ODA COMMITMENTS BY PURPOSE, 1995



Source: UNCTAD secretariat, based on OECD data.

CHART 4: TOTAL ODA NET, 1990-1995



Source: UNCTAD secretariat, based on OECD data.
Note: Categorization based on analysis in UNCTAD, 1996a, pp. 8-9.
Group A: Strong-growth LDCs (11): Bangladesh, Bhutan, Cape Verde, Chad, Guinea-Bissau, Lao People's Democratic Republic, Lesotho, Maldives, Nepal, Solomon Islands and Tuvalu.
Group B: Stagnant LDCs (21): Benin, Burkina Faso, Central African Republic, Comoros, Djibouti, Equatorial Guinea, Gambia, Guinea, Kiribati, Madagascar, Malawi, Mali, Mauritania, Myanmar, Niger, Samoa, Sao Tome and Principe, Uganda, United Republic of Tanzania, Vanuatu and Zambia.
Group C: Civil strife and war-affected LDCs (15): Afghanistan, Angola, Burundi, Cambodia, Democratic Republic of the Congo, Ethiopia, Haiti, Liberia, Mozambique, Rwanda, Sierra Leone, Somalia, Sudan, Togo and Yemen.

RESOURCE MOBILIZATION FOR INDIVIDUAL LDCS

At the individual country level, consultative and aid groups and round-table meetings are important mechanisms for resource mobilization and aid coordination, including at the sectoral level. Nineteen LDCs (typically among those with large populations) had or have consultative or aid group arrangements co-sponsored by the World Bank, while most others have had recourse to UNDP-supported round-table meetings since this aid coordination process was set up on a broader scale following the first United Nations Conference on the LDCs in 1981. As an increasing number of LDCs implemented structural adjustment programmes during the early 1990s, the country review mechanism was revived in a number of countries which had stayed outside the process during all or most of the previous decade (e.g. Burkina Faso, Ethiopia and Sierra Leone).

Most of the consultative and aid groups for countries which have been implementing Structural Adjustment Facility (SAF) and/or Enhanced Structural Adjustment Facility (ESAF) programmes met regularly during the first half of the 1990s, and six of them were convened during 1996 (see table 4). In addition, the first meeting of a new consultative group – the successor to the International Committee on the Reconstruction of Cambodia – was held in Tokyo in July 1996. The consultative group for Ethiopia was convened in Addis Ababa in December 1996, the first such meeting to take place in Africa. The country review process has been much more irregular in round-table countries, especially in Africa, where slippages in the implementation of structural adjustment programmes and political instability have inhibited the process in some countries, and among the smaller countries (such as in the Pacific), where other types of aid coordination and mobilization mechanisms may suffice. The two round-table meetings held in 1996 in Geneva – for Rwanda and Sierra Leone – focused on rehabilitation and recovery after periods of civil strife. (A regular meeting of the consultative group for Sierra Leone was held in March 1997.) Round-table activities in 1996 also included special donors' meetings (such as for Burundi in June) and sectoral meetings held in the recipient countries, while a number of round-table meetings for Asian and African LDCs have been planned for 1997. The first of these, for Bhutan, presenting the country's new five-year development plan covering the period 1997-2002, was held in January 1997. Round-table meetings for Djibouti and the Lao People's Democratic Republic were scheduled for May-June 1997.

Experience indicates that once agreement has been reached on the convening of meetings, and if programmes have been well prepared and presented, these meetings are generally successful in eliciting donor support. Substantial pledges were made at the consultative and aid group meetings held in 1996, ranging from $500 million for Cambodia to $2.5 billion for Ethiopia. In some cases, a notable increase in donor support was implied. Funding pledges for Rwanda at its June 1996 round-table meeting amounted to $617 million, while over $200 million was obtained for the implementation of the "quick action" components of Sierra Leone's National Resettlement, Rehabilitation and Reconstruction Programme.

As suggested in the discussion above, competition for scarce aid resources is likely to remain keen for the foreseeable future. In this respect, consultative and aid group and round-table meetings can play a crucial role in presenting LDCs' case to development partners and mobilizing support for their economic and development programmes. A number of other developing countries as well as countries in transition also use this format for dialogue and coordination with donors and for raising finance. Many LDCs, however, are still left out of this ef-

TABLE 4: CONSULTATIVE AND AID GROUPS AND ROUND-TABLE MEETINGS, 1990-1996[a]

	1990	1991	1992	1993	1994	1995	1996
Countries with consultative and aid group arrangements							
Bangladesh	♦	♦	♦	♦	♦	♦	♦
Cambodia			♦[b]	♦[b]	♦[b]	♦[b]	♦
Eritrea					♦		
Ethiopia			♦		♦		♦
Guinea	♦						
Haiti	♦	♦	♦[c]		♦[c]	♦	♦[c]
Malawi	♦		♦	♦	♦	♦	
Mauritania					♦		
Mozambique	♦	♦	♦	♦		♦	♦
Nepal	♦		♦				♦
Sierra Leone					♦		♦[d]
Somalia	♦						
Uganda		♦	♦	♦	♦	♦	♦
United Republic of Tanzania		♦	♦	♦		♦	♦
Zambia	♦	♦	♦	♦	♦	♦	
Round-table meetings							
Angola						♦	
Benin			♦				
Bhutan			♦			♦	
Burkina Faso		♦		♦		♦	
Burundi			♦				
Cape Verde			♦			♦	
Central African Republic		♦			♦		
Chad	♦						
Comoros		♦					
Gambia	♦		♦		♦		
Guinea-Bissau					♦		
Lao People's Democratic Republic			♦		♦		
Lesotho						♦	
Maldives		♦			♦		
Mali					♦		
Rwanda			♦			♦	♦
Samoa	♦						
Sao Tome and Principe			♦				
Tuvalu	♦	♦					
Yemen			♦				

Source: Information from UNDP and the World Bank.

Note: The list of consultative and aid groups and round-table meetings held prior to 1990 can be found in UNCTAD, 1995, table 22.

a There were no meetings during 1990-1996 for the Democratic Republic of the Congo, Madagascar, Myanmar and Sudan (countries with consultative group arrangements) or for Afghanistan, Djibouti, Equatorial Guinea, Kiribati, Liberia, Niger, Solomon Islands, Togo and Vanuatu (round-table countries).

b Ministerial Conference on Rehabilitation and Reconstruction of Cambodia (1992), co-chaired by UNDP, and the International Committee on the Reconstruction of Cambodia (1993 to 1995).

c Caribbean Group for Cooperation in Economic Development.

d Round Table Conference on Sierra Leone's National Resettlement, Rehabilitation and Reconstruction Programme.

Box 3: Development cooperation between other developing countries and LDCs: The case of the Republic of Korea

The Republic of Korea is perhaps the outstanding example of an "emerging donor" with the potential for making a significant contribution to ODA, which could supplement the aid resources provided by the traditional donor countries. It already provides substantial amounts of non-ODA finance and private investment to other developing countries. Moreover, it has its own development experience of much interest to LDCs and other developing countries, and lessons to share with them.

(a) The current ODA programme of the Republic of Korea

The Republic of Korea has two main institutions dealing with ODA. The Export-Import Bank of Korea administers concessional development loans through the Economic Development Cooperation Fund (EDCF), established in 1987, under the supervision of the Ministry of Finance and Economy. The Korea International Cooperation Agency (KOICA) was established in 1991 under the authority of the Ministry for Foreign Affairs, and administers bilateral grant aid.

Total ODA disbursements amounted to $116 million in 1995, corresponding to 0.03 per cent of the GNP of the Republic of Korea in that year. In absolute terms, the Republic of Korea's ODA effort compares with the aid programmes of Ireland and New Zealand. Bilateral aid increased to $71 million in 1995, accounting for some 60 per cent of total ODA. Seventy per cent of bilateral aid was in grant form, and project-type aid and technical cooperation accounted for most grant aid. KOICA technical cooperation activities include dispatch of experts, volunteers and doctors. Also, assistance is provided to NGOs from the Republic of Korea engaged in projects in developing countries. Disbursements of development loans amounted to $21 million in 1995. Telecommunications, transport and energy have been the main sectors benefiting from EDCF loans.

In 1995, 20 per cent of bilateral assistance was allocated to LDCs, with total grants and loans to these countries amounting to $14.1 million. The aid programme covers most of the LDCs; in 1995, support was provided to 42 of them. About one-third of disbursements to this category of countries went to Asian LDCs and two-thirds to African LDCs. Relatively small amounts were spent in each country. Only Bangladesh, Myanmar, Sudan and Uganda received more than $1 million; Myanmar and Uganda are among the top ten recipients of the Republic of Korea's aid. These two countries were both granted development loans in 1995 for the building of telecommunications networks.

The Republic of Korea has also made important contributions to a number of multilateral institutions and programmes of interest to the LDCs, notably ESAF, IDA, UNDP, the African Development Fund and the Asian Development Fund.

(b) The development experience of the Republic of Korea

The Republic of Korea has transformed its economy from a rural, less developed country to a modern society in just one generation. Consequently, it has the potential to provide other countries with intermediate technology and share with them its own experience of development, including in particular human resources development, which is considered to have been a key factor in its economic growth. Moreover, the country has in its recent history had to confront and overcome many severe problems which are familiar to many LDCs and currently impeding their development: the colonial heritage, lack of natural resources, high density of population, deep-seated poverty, civil war (1950-1953), authoritarian rule (1961-1979) and subsequent transition to civil government. Annual per capita income rose to over $10,000 in 1995.

It is also interesting to note that the Republic of Korea has itself been a major aid recipient, with foreign assistance contributing significantly to its development. Since its independence from Japan in 1945, grants totalling $4.8 billion have been provided to it, mostly in the form of bilateral assistance. From 1953 to 1962, such aid financed 71 per cent of total imports and 80 per cent of total fixed investment. During this period, the country established the basis for its industrialization later in the 1960s and the 1970s. It is a country that has successfully broken out of aid dependency.

(c) Challenges for future development cooperation

Such an economic and historical background gives the Republic of Korea the opportunity to play a unique role in development cooperation, and the country intends to enhance both the volume and the quality of its ODA. In 1995, it already increased its loan commitments considerably, to $168 million. In addition, the terms and conditions of loans have been improved and they now correspond broadly to DAC standards. The payment period has recently been lengthened to 29 years including a grace period of nine years.

The Republic of Korea is still in the early stages of development cooperation as a donor and in the process of formulating an ODA policy appropriate to its political and economic situation. Nonetheless, it is already the third or fourth largest ODA donor (following Saudi Arabia and Kuwait, and in 1994 preceding Greece) among non-DAC donor countries. Since it has the eleventh largest GNP in the world and a fast-growing economy, its ODA could expand significantly as long as the economy continues to prosper, and the country could aspire to becoming a major donor in the near future. However, it still needs to resolve a number of problems before being able to join the donor community as a full-fledged member. Above all, long-term basic principles regarding ODA volume and composition, priority areas and main recipient countries need to be developed, with efforts being made at the same time to build the support of public opinion for development assistance.

fective aid coordination process and urgently need the support of the lead agencies – the World Bank and the UNDP – in setting up programmes and preparing for country review meetings.

Donors have become more selective in their allocation of aid, and place increasing emphasis on recipient country performance. A legitimate government established through democratic processes and political stability have in a sense become the first condition for the provision of aid; like private capital, ODA tends to shy away from countries where conditions are unstable. Donor support is in practice largely tied to economic programmes agreed with the Bretton Woods institutions. In addition, donors have concerns such as poverty reduction, promotion of popular participation and gender equality, and protection of the environment, to which LDCs have to respond.

C. External debt

Recent trends in LDCs' external debt situation

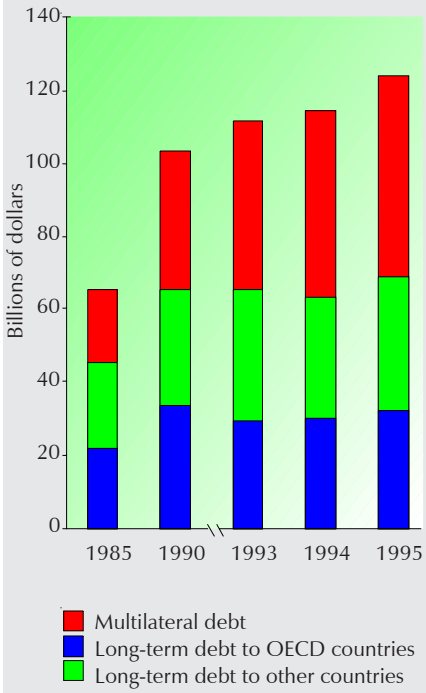
The external debt situation of the LDCs remains a matter of serious concern. With scheduled debt service payments estimated to be in the order of one-third of the aggregate export earnings of LDCs,[8] external obligations clearly exceed many of these countries' capacity to pay. As a consequence, they have accumulated massive payments arrears. The bulk of LDCs' debt arrears are accounted for by countries affected by civil war and strife, but a number of other LDCs typically experiencing stagnant growth and whose export earnings have increased little have also been unable to fully meet their obligations. The debt overhang compounds the pressures on LDCs attempting to implement structural adjustment programmes, and tends to inhibit growth as well as dampen prospects for private capital inflows. In many of the LDCs, external debt-servicing obligations also place an inordinate burden on government revenue.

LDCs' external indebtedness continues to grow. Partial debt relief measures, such as Paris Club restructuring of debt (see below) and the forgiveness of ODA claims by a large number of donor countries, have not been sufficient to remove the debt overhang of the LDCs. Between the end of 1990 and the end of 1995 the debt stock increased by some $20 billion, or 18 per cent, to $135 billion. Most of this increase has been due to new concessional lending by the international financial institutions, mirroring increased multilateral assistance to these countries and, to a large extent, support extended for policy reform processes in the LDCs. LDCs' total multilateral debt increased from $38 billion at the end of 1990 to $55 billion at the end of 1995. Long-term debt to bilateral creditors, however, increased by only $3 billion over the same period. Debt to OECD and OPEC countries decreased slightly over this period as a whole, as a result of limited new lending and of debt relief operations. At the end of 1995, loans from multilateral institutions represented just over 40 per cent of LDCs' total external debt, outstanding ODA loans from OECD countries 14 per cent and bilateral long-term non-concessional credits from these countries 9 per cent. Claims by non-OECD countries constituted over one-quarter of LDCs' total debt. Short-term debt amounted to 8 per cent (see chart 5 and annex table 27).

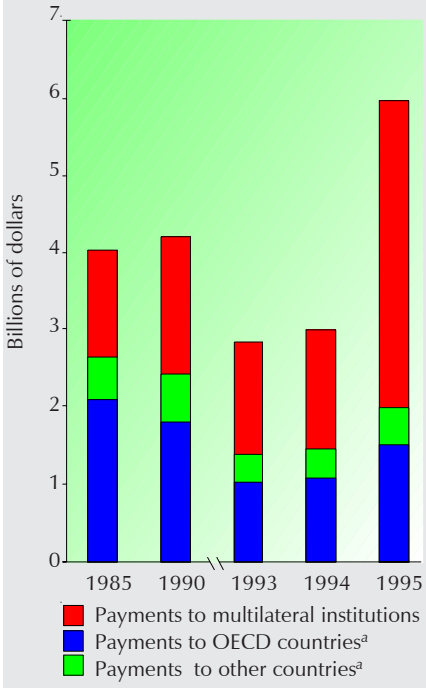
Actual debt service payments by the LDCs, which had reached $5.8 billion in 1989, fell steadily during the next four years, and remained far below scheduled debt service. Correspondingly, the debt service ratio for the LDCs as a group decreased, from 29 per cent in 1989 to 14 per cent in 1993 and 1994. This re-

Chart 5: External debt and debt service payments of LDCs, 1985-1995

A: Components of total debt stock



B: Debt service payments, by type



Source: UNCTAD secretariat, based on OECD data.
a Payments on long-term debt only.

Box 4: Issues relating to foreign private investment in LDCs

In addition to traditional foreign direct investment by transnational companies, other channels to facilitate private investment in LDCs merit exploration. Over the past decade, venture capital and portfolio equity investment funds have sought out off-the-beaten track "emerging markets" in ever-growing numbers. The number of emerging market equity funds soared from only 10 in 1984 to 1,435 in 1996. The LDCs, however, have so far largely failed to benefit from this trend. To date, inward investment funds have been set up for only six of them.

Surveys of investors' market selection process point to a number of factors which are taken into consideration by investors when they invest in emerging markets:

- Macroeconomic and political stability is invariably the precondition for foreign investment, as it provides a stable environment for the promotion of risk capital investment in high-risk ventures. In particular, stable exchange rates will protect investors from exchange risk;
- High growth potential: experience has shown that most equity investment funds are concentrated in markets with high growth potential;
- Ease of capital income repatriation: investors should be assured that the income and capital gains of their investments can be easily repatriated. In that respect, foreign exchange control is a major impediment to foreign investment;
- Legal transparency and adequate investors' protection;
- Adequate financial information and reporting disclosure;
- Exit mechanisms: portfolio equity investors are interested in the financial returns on their investments and therefore prefer to invest in more liquid instruments. The usual exit mechanism for divestment is the stock exchange; hence the existence of liquid stock exchanges is an advantage. However, in the case of venture capital investment, other exit mechanisms can be used: secondary or "trade sale" of the investor's shares to another investor or company, or repurchase of the investor's shares by the entrepreneur of the investee firm, as allowed by contractual agreements;
- In countries which have a stock market, investors also look at such factors as market liquidity (as measured by ratios of market capitalization to money supply) and the volatility of the stock market.

On one hand, the LDCs still need to improve the environment for investment and develop capital markets in order to attract more private foreign investment. On the other hand, existing investment opportunities need to be better known. UNCTAD, in collaboration with the United Nations Industrial Development Organization, organized a pilot seminar in Geneva in June 1997 on the mobilization of the private sector to encourage foreign investment flows to the LDCs. The objective of this seminar was to show potential investors the opportunities in these pre-emerging markets, as well as to discuss what the LDC governments themselves can do to improve their investment climate. The following key issues were considered:

- the suitability of various forms of innovative financing arrangements (country funds and venture capital funds) for the mobilization of foreign risk capital for investment in LDCs;
- prospects for and constraints on foreign investment in LDCs;
- identification of investment opportunities in LDCs, by country and by sector;
- conditions for the creation of investment funds for LDCs and identification of technical cooperation activities.

flects payment difficulties, as debt service actually paid fell short of scheduled debt service. Aggregate debt service payments by the LDCs increased to $6.4 billion in 1995, mainly because of repayments and clearance of arrears by Zambia as this country completed its rights accumulations programme with the IMF. However, debt service payments by other LDCs also increased. As a group they paid $3.7 billion in external debt service, compared with $2.9 billion in 1994. Excluding Zambia, debt service on multilateral debt made up just over 40 per cent of debt service payments by LDCs in 1995.

The improvement in payments performance in 1995 was broadly in line with the growth in LDCs' exports that year. Excluding Zambia, the debt service ratio (calculated on actual payments) increased only marginally, from 13 per cent in

1994 to 14 per cent in 1995. There is so far little sign of any fundamental improvement in LDCs' debt situation nor any indication of significant decline in outstanding debt for individual LDCs (as could be expected, since they have received large amounts of new concessional multilateral lending, while debt relief has been partial and involved relatively small amounts). In terms of debt to GDP ratios, improvement or stabilization reflecting stronger economic growth can be observed for some LDCs over the last couple of years, but in others this ratio has continued to grow. Overall, LDCs' debt burden is still unsustainable. In a significant number of LDCs, outstanding debt continues to exceed GDP (see annex table 29). Most of these countries have been included in the category of heavily indebted poor countries (HIPCs). A few LDCs have staggering debt to GDP ratios: 544 per cent in the case of Sao Tome and Principe, and 364 per cent in the case of Mozambique. Only a handful of LDCs did not accumulate excessive external debt and avoided payments arrears and debt reschedulings (see table 5).

Traditional debt relief schemes

Various debt relief schemes continue to be implemented. Since December 1994, the Paris Club has applied Naples terms to the reschedulings of bilateral official debt of the poor and heavily indebted countries. Those terms offer a reduction of up to 67 per cent of the present value of debt; some countries had the stock of debt reduced and have thus exited from Paris Club reschedulings. By mid-1997, a total of 19 LDCs had secured such restructuring of their debts under Naples terms. Four of the agreements concerned reduction of eligible debt stocks (in the case of Benin, Burkina Faso, Mali and Uganda). All the LDCs apart from Guinea have benefited from a debt reduction of 67 per cent in net present value terms (table 5 and annex table 30).

There is so far little sign of any fundamental improvement in LDCs' debt situation, nor any indication of a significant reduction in their outstanding debt.

The benefit of debt reduction under the Naples terms is reduced by the strict definition of eligible debt applied by the Paris Club. Thus, ODA debt is not reduced, but is rescheduled over a long period (30 or 40 years, including 12 to 16 years of grace, at interest rates at least as favourable as the original rates). Post-cut-off-date debt is not considered. Sometimes the practice of "topping up" is not applied to some categories of debt which had previously been rescheduled on concessional terms.

Relief on obligations to Paris Club creditors alone cannot solve LDCs' debt problems. Action is also required on other components of their debt. The only general scheme for providing debt relief on multilateral debt has so far been the "fifth dimension" programme of the IDA, under which supplemental allocations have been provided to help offset interest due on outstanding debt contracted in the past on IBRD terms. A few LDCs continued to benefit from this programme in World Bank fiscal year 1995/96, but the amounts involved have been relatively modest. Buy-backs of commercial debt have been undertaken under the IDA Debt Reduction Facility (DRF). Two new such operations for LDCs – for Ethiopia and Mauritania – were completed in 1996. A few others were still in preparation. Bilateral donors have contributed to the funding of DRF buy-backs, as well as helping some LDCs with their multilateral debt service payments.

While various schemes and mechanisms are available in dealing with LDCs' bilateral official debts to OECD countries – notably within the Paris Club as discussed above, and through ODA debt forgiveness, from which most LDCs have benefited – LDCs' outstanding obligations to non-OECD creditors have long been the "neglected part" of their debt. Little has been done in this respect in terms of elaboration of specific policy recommendations and setting up mecha-

TABLE 5: LDCs: DEBT INDICATORS AND DEBT RELIEF MEASURES

Country/Group[a]	Outstanding debt, end 1995 ($ million)	Ratio of total debt to GDP 1995 (%)	Ratios (to 1995 total exports)[b] of: Total debt service (%)	Multilateral debt service (%)	Paris Club agreements under London or Naples terms	SPA eligible 1995	SAF/ESAF support 1990-1995	HIPC-eligible[c] 1996
Severely indebted LDCs								
Afghanistan	5 454	..	..	..				
Angola	9 738	262	13	0				•
Burundi	1 237	116	31	23		•	•	•
Cambodia	1 986	72	1	0	1995		•	
Central African Republic	1 052	93	7	7	1994	•		•
Dem. Rep. of the Congo	10 356	..	..	..				•
Equatorial Guinea	258	153	3	2	1992, 1994	•	•	•
Ethiopia	4 882	92	18	8	1992, 1997	•	•	•
Guinea	3 234	88	24	10	1992, 1995, 1997	•	•	•
Guinea-Bissau	842	328	67	54	1995	•	•	•
Liberia	1 535	..	4	0				•
Madagascar	3 863	121	12	6	1997	•	•	•
Malawi	2 234	152	25	15		•	•	
Mali	2 876	118	16	8	1992, 1996	•	•	•
Mauritania	2 294	215	22	11	1993, 1995	•	•	•
Mozambique	5 350	364	40	11	1993, 1996	•	•	•
Myanmar	6034	..	18	3				•
Niger	1 724	93	22	9	1994, 1996	•	•	•
Rwanda	1 073	95	28	24		•	•	•
Sao Tome and Principe	245	544	..	..		•	•	•
Sierra Leone	931	113	28	11	1992, 1994, 1996	•	•	•
Somalia	2 141	..	..	..				•
Sudan	10 310	..	25	10				•
Togo	1 405	111	7	5	1992, 1995	•	•	•
Uganda	3 406	60	22	17	1992, 1995	•	•	•
United Republic of Tanzania	5 767	160	18	12	1992, 1997	•	•	•
Yemen	9 459	197	6	3	1996			•
Zambia	6 181	152	227	210	1992, 1996	•	•	•
Moderately indebted LDCs								
Bangladesh	15 988	55	15	6			•	
Benin	1 728	..	8	6	1991, 1993, 1996	•	•	•
Burkina Faso	1 560	67	18	11	1993, 1996	•	•	•
Chad	954	84	6	5	1995, 1996	•	•	•
Comoros	239	105	..	..		•	•	
Gambia	448	117	14	9		•	•	
Haiti	827	40	32	30	1995			
Lao People's Democratic Republic	2 211	126	7	3			•	•
Samoa	163	107	8	6				
Less-indebted LDCs								
Bhutan	107	35	7	1				
Cape Verde	222	..	10	5				
Djibouti	299	60	6	2				
Eritrea	13	..	..	..		•		
Kiribati	10	23	5	5				
Lesotho	1 238	120	27	12			•	
Maldives	190	70	3	1				
Nepal	2 489	59	8	5			•	
Solomon Islands	239	67	12	1				
Tuvalu	0	..	..	..				
Vanuatu	298	165	23	1				
Total	**135 090**	**102**	**23**	**15**				

Source: UNCTAD secretariat, based mainly on information from OECD and the World Bank.

a As classified by the World Bank (1997).

b Exports of goods and services.

c Countries identified as potentially eligible under the HIPC initiative on the basis of initial assessment of debt sustainability.

nisms to deal with the problems. However, new attention was given to this debt in the context of the HIPC initiative (see below). In October 1996, UNCTAD organized a seminar on debt owed to non-OECD official creditors; while this seminar specifically dealt with sub-Saharan African debtor countries, the problems described were largely similar to those of other LDCs with important outstanding obligations to non-OECD creditors.

The Russian Federation and the Arab bilateral and multilateral financial institutions are the largest non-OECD creditors. The Russian Federation has assumed the claims of the former USSR. As shown by the study commissioned by UNCTAD for the seminar,[9] arrears on non-OECD debt have tended to escalate in the 1990s while the flow of new finance has sharply declined, as a result of the collapse of the USSR and the changed financial situation of the Arab oil-exporting countries. Although priority was given to the servicing of debt owed to multilateral financial institutions and rescheduled debt owed to Paris Club creditors, LDCs continued to service their debt to non-OECD creditors. Payments actually made to this group of creditors in 1995 amounted to 13 per cent of LDCs' total debt service payments (excluding payments by Zambia). Non-OECD creditors have also offered debt relief to LDCs in different forms and with varying degrees of concessionality. For instance, bilateral Arab institutions have cancelled large amounts of debt and arrears. In other cases, the question has been rather one of tolerating arrears. Further efforts are needed to normalize relations with non-OECD creditors and restructure debt owed to them, both to restore normal relations for economic cooperation and to reduce LDCs' overall debt burden to sustainable levels. The UNCTAD seminar explored various ways in which this could be achieved, such as Paris Club-comparable rescheduling, buy-backs, debt conversion and cancellations. (On LDCs' debt to the Russian Federation, see box 5).

Donors have become more selective in their allocation of aid, and place increasing emphasis on recipient country performance. Like private capital, ODA tends to shy away from countries where conditions are unstable.

The HIPC initiative

A major step towards addressing the debt problems of the poorest countries in a comprehensive way was taken at the annual meetings of the World Bank and the IMF in September 1996, with the endorsement by the international community of the initiative in favour of the heavily indebted poor countries (HIPCs). This initiative is based on the premise that "sustainable development requires sustainable debt". It represents a commitment to reduce to sustainable levels the debt burden of an eligible country that has successfully completed a period of strong policy performance. A total of 29 LDCs are included in the group of 41 countries that have been identified as HIPCs.

The HIPC initiative builds on the existing mechanisms for providing debt relief, particularly the Paris Club (using the Naples terms as the starting point for debt relief measures). Other bilateral and commercial creditors are required to provide treatment comparable to that provided by the Paris Club. Where existing mechanisms would not permit the achievement of sustainability upon completion of a first stage of adjustment and reform, enhanced action under a second stage is envisaged, including a deepening of relief in the Paris Club and action by multilateral creditors. Paris Club creditors have indicated a willingness to provide debt reduction of up to 80 per cent in net present value terms on a case-by-case basis during the second stage. Multilateral creditors will also provide additional support and relief. Specifically, the World Bank has established a HIPC Trust Fund for financing the scheme and earmarked $500 million as its own initial contribution to the fund; and in early 1997 the IMF Executive Board agreed on the modalities of IMF participation in the initiative through the ESAF.

Box 5: LDCs' debt to the Russian Federation

A number of LDCs have substantial outstanding obligations to the Russian Federation – for example, Afghanistan, Angola, Cambodia, Ethiopia, the Lao People's Democratic Republic, Mozambique and Yemen. It is clear that the problems of the debt overhang of these countries, and of other LDCs which also owe debts to the Russian Federation, cannot be resolved without addressing this component of their external debt.

(a) The scale and classification of the debt

At the end of 1995, LDCs' debt to the Russian Federation was estimated at over $31 billion, close to one-fifth of total developing country debt to that country.[10] Of the 25 LDCs with outstanding obligations to it, 19 are African countries ($14 billion owed) and six are Asian countries ($17 billion owed). Russian statistics distinguish between loans for civilian supplies, often called economic debt, and loans for special supplies, often called military debt. Both economic debt and military debt have concessional and commercial components. The distinction between economic and military debt and between debt on concessional and on commercial terms is made for many but not all LDCs. On the basis of available information, the share of economic debt in LDCs' total debt to the Russian Federation may be put at about one-third, and the share of concessional debt at about three-quarters of their total debt to that country.

(b) Available debt relief mechanisms

A radical debt relief programme was proposed by the former president of the USSR in his address to the forty-third session of the General Assembly of the United Nations in December 1988, whereby the USSR would be prepared to declare a moratorium up to 100 years on the servicing of LDCs' bilateral debt and, in a number of cases, to write off such debt. This proposal has not been implemented owing to economic difficulties following the collapse of the Soviet Union, which have since the early 1990s modified the Russian position on the debt relief issue. On the one hand, the Russian Federation has continued to work with debtors towards finding solutions to problems relating to outstanding debt (including the reconciliation of debt data), to reschedule debts and, whenever possible, to facilitate payment of debt service in goods. On the other hand, with the increase in payments arrears, it has also taken some steps towards more innovative and mutually beneficial debt relief measures, such as debt-equity conversion, sale of debts to private companies and buy-backs at a discount by debtor countries.

Payments in goods have risen sharply as a proportion of total debt service paid to the Russian Federation – from 19 per cent in 1992 to 88 per cent in 1994. However, this development is chiefly accounted for by transactions with larger, non-LDC debtor countries.[11] Payments in goods have virtually ceased as far LDCs are concerned, mainly because of the liberalization of trade flows in both the Russian Federation and debtor LDCs and a switch in that country's imports to consumer goods rather than the primary products which are LDCs' principal exports. There are nevertheless some recent examples of payments of debt service in goods by LDCs. One was the agreement in the early 1990s with the Lao People's Democratic Republic, which applied to close to 10 per cent of that country's outstanding debt to the Russian Federation. Another example is the agreement with the United Republic of Tanzania in 1994 (involving no more than 1 per cent of its debt to the Russian Federation).

As regards debt-equity conversions, two such deals with LDCs are known. One has been undertaken with the United Republic of Tanzania and the other with Madagascar, covering 6 per cent and 10 per cent respectively of these countries' debts to the Russian Federation. They have financed Russian companies' participation in various investment projects. As to the sale of debt to foreign companies, an interesting precedent arose when all of Uganda's outstanding debt to the Russian Federation, both economic and military debt, was sold in 1992 to a Swiss trading company at 12 per cent of face value. These claims were included the following year in the buy-back of Uganda's commercial debt funded by the IDA DRF. There have been other attempts to provide debt relief by using the mechanism of buy-backs by debtor countries. In 1994, the Russian Federation and Zambia reached agreement on a buy-back of all of the latter's outstanding debt to the former at 10 per cent of face value, i.e. on terms identical to those of the DRF operation for Zambia the same year. Lack of funding has, however, delayed implementation of the agreement.

In essence, the innovative debt relief mechanisms described above have provided treatment comparable to - or in some instances even better terms than - debt restructuring in the Paris Club framework. However, these transactions taken together have applied, at the best estimate, to no more than 2 per cent of LDCs' total outstanding debt to the Russian Federation. More extensive use of payments in goods and of debt conversion has been constrained for the time being by a number of factors, notably debtors' limited export capacity and the lack of counterpart funds in local currency. Moreover, disagreement between debtors on the one hand and the Russian Federation on the other hand about classification of military debt and, most important of all, about the conversion rate for the rouble has so far been the main stumbling block to a resolution of the debt owed to the Russian Federation.

The eventual participation of the Russian Federation in the Paris Club as a creditor would not by itself solve the problems of conversion rate and debt reconciliation. However, its participation would channel the debt renegotiation process into a more transparent framework and reduce transaction costs. This framework could facilitate agreement with debtors on questions relating to the volume and valuation of claims, and the classification of debts as concessional and non-concessional, as well as on the appropriate mechanisms for debt relief.

During the first stage of implementation of the HIPC initiative, debtor countries are required to establish a first three-year track record of good performance under IMF-monitored economic programmes, Paris Club creditors agreeing to a flow rescheduling on current Naples terms during this period and other bilateral and commercial creditors providing at least comparable treatment. At the end of the first stage, debtor countries will reach the "decision point". By that time, if a Paris Club stock-of-debt operation under Naples terms is sufficient for achieving a sustainable external debt situation in three more years, the country concerned can request an exit stock reduction from the Paris Club. If debt sustainability analysis shows that such an operation would not be sufficient, the country may become eligible for HIPC assistance. It would need in principle to establish another three-year track record of good performance before reaching the "completion point". In the interim period, the Paris Club would be expected to provide more concessional debt reduction, up to 80 per cent in net present value terms; similar treatment would be requested from other bilateral and commercial creditors; and donor countries and multilateral institutions should also provide enhanced support. The World Bank would provide IDA grants and supplemental HIPC IDA allocations during this second stage.

Multilateral debt relief proper would be extended only at "completion point", again provided that the debtor country had met performance criteria. At this point, a stock-of-debt operation in the Paris Club would also take effect. It is foreseen that the World Bank would provide assistance through the HIPC Trust Fund, and the IMF through a special ESAF grant or loan which would be paid into an escrow account and used to cover debt service to the IMF. The six-year performance period would be implemented flexibly case by case, with the possibility of giving countries credit for already established track records in the first stage, and of shortening the second stage for countries which already have sustained periods of strong performance. Support under the HIPC initiative would remain available to countries embarking on IMF- and World Bank-supported programmes before 1 October, 1998. A comprehensive review would be held by then to decide whether to extend the initiative.

The HIPC initiative is a breakthrough. For the first time, a comprehensive scheme is being set up to address the poorest countries' debt problems which recognizes the need for multilateral debt relief.

Debt sustainability analysis is a key step in the implementation of the HIPC scheme. Such analysis would be prepared jointly by the World Bank and the IMF, in collaboration with the debtor country concerned. It would lead to recommendations concerning country-specific debt sustainability target ranges and required action (e.g. amounts of debt relief to be provided at the "completion point"). Target ranges for sustainable debt levels have initially been defined by the Bretton Woods institutions as 200 to 250 per cent for the debt to exports ratio expressed in net present value terms and as 20 to 25 per cent for the debt service to exports ratio. An additional criterion is a ratio of present value of debt to government revenue of 280 per cent (together with additional conditions related to a ratio of government revenue to GDP of 20 per cent and a ratio of exports to GDP of 40 per cent). Debt sustainability analysis would also take into account country-specific "vulnerability factors", such as the concentration and variability of exports, external debt in relation to GDP, the resource gap, the level of international reserves and the burden of private sector debt.[12]

A solution for LDCs' debt problems in sight?

The HIPC initiative represents a major breakthrough. For the first time, a truly comprehensive scheme is being set up to address the poorest countries' debt problems, and it is clearly recognized that multilateral debt relief is also required. The Bretton Woods institutions themselves have been major actors driving the initiative forward, and other multilateral organizations and donor coun-

tries have also indicated their willingness to contribute. However, overall eligibility criteria, conditionalities and the operational definition of debt sustainability will determine the benefits which LDCs will ultimately derive from the HIPC initiative. From the way the implementation of the scheme is currently shaping up and on the basis of information about the timetable envisaged, it seems that far fewer LDCs are likely to benefit than the original list of HIPCs appeared to indicate and that few will do so before the year 2000.

The concept of "debt sustainability" is a welcome development in the analysis of LDCs' debt situation.

The foreign exchange constraint as measured by debt-to-exports and debt service ratios is not the only constraint on the debt-servicing capacity of the LDCs and other HIPCs. The budgetary constraint can be as severe, and in the countries belonging to the CFA franc zone it is even the primary one. In some of the HIPC LDCs, scheduled public-sector external debt service weighs very heavily in the budget. For instance, payable debt service corresponded to over 150 per cent of 1995 government revenue in Madagascar (and over 70 per cent of expenditure), almost 80 per cent of revenue in the United Republic of Tanzania (over 50 per cent of expenditure), and close to 50 per cent of revenue in Zambia (over 30 per cent of expenditure).[13] Such a high level of debt service will reduce the amount of resources available for financing essential public services and social programmes for poverty reduction. From this perspective, taking the fiscal burden of debt explicitly into account in setting HIPC targets for sustainable debt levels is a welcome development, although the envisaged indicator remains somewhat restrictive, particularly since it is associated with two other conditions.

There is still scope for refining the concept of debt sustainability. Target ranges for debt levels are currently set in terms of net present value, a concept which is perhaps not the most accurate measure of debt overhang and the debt-servicing capacity of debtor countries. However, net present value does take into account the varying concessionality of debts, and would be the relevant concept for burden-sharing among creditors. As a general consideration, criteria and target ranges should be flexible enough to take into account different debt situations, and avoid the risk of excluding from the initiative those countries that truly need some degree of debt reduction. There could be merit in adopting common thresholds for debt overhang, as well as foreign exchange and fiscal constraints, instead of ranges of threshold values, e.g. common thresholds for debt service ratio of 20 per cent and ratio of public external debt service to budgetary revenue of below 28 per cent. Such simple benchmarks would at the same time make the process of implementation of the HIPC initiative more tractable and its impact easier to monitor. The incorporation of human and social development factors into the concept of debt sustainability would also be important, especially for the LDCs.[14]

Consideration should also be given to the problems which LDCs and other HIPCs may be facing – in practice – in applying the methodology of debt sustainability analysis, and to their requirements for technical assistance in this respect. They should be able to participate as equal partners in the process of implementing the HIPC initiative. There is certainly a need to strengthen LDCs' capacity to undertake such analysis and appraise the implications of debt relief; and more generally, LDCs and other HIPCs will have to build up their capacity to elaborate future financing and borrowing strategies in the context of their overall macroeconomic policy and development objectives.

Among the HIPC front runners, i.e. the first group of four HIPCs for which debt sustainability analysis was undertaken, there are two LDCs – Burkina Faso and Uganda – which have both secured Paris Club stock-of-debt restructuring. Uganda is the first HIPC to have sustainability analysis completed, and to reach

the "decision point" (in April 1997). The "completion point" has been set for one year later, i.e. April 1998. Burkina Faso has a shorter track record of structural adjustment than Uganda, and a somewhat longer period of performance under the second stage of the HIPC initiative will possibly be required for it. Benin and Mali have also in principle exited from the Paris Club through stock-of-debt operations, and can be regarded as having already concluded the first stage of the HIPC initiative. Ethiopia and Mozambique are other LDCs which have been mentioned as early candidates for relief under the scheme.

Four other LDCs – Guinea, Madagascar, Niger and the United Republic of Tanzania – have recently agreed on new arrangements with the IMF and secured debt restructuring on Naples terms in the Paris Club in late 1996 or early 1997. Other HIPC LDCs had ESAF agreements in effect at the time of the adoption of the HIPC initiative, and their current arrangements expire in the second half of 1997 (Sierra Leone and Togo) or in the course of 1998 (Chad, Guinea-Bissau, Mauritania and Zambia). In their case, the benefits to be expected hinge on their performance and the successful conclusion of new arrangements with the IMF. Even if these countries could enter the second stage of the HIPC initiative in 1998, it seems unlikely that they could reach "completion point" before the year 2000.

Unfortunately, reluctance on the part of creditors means that, at most, only six LDCs will obtain debt relief by the end of the century.

It seems, therefore, that four to six LDCs at most could obtain additional debt relief under the HIPC scheme during the current decade, unless the scheme is applied flexibly case by case and periods of performance required for eligibility for relief are shortened. Delaying the implementation of debt relief may diminish the costs for creditors and donors, at least in the short term. The real cost of delays in its implementation will, however, be lost opportunities for economic development and reduced welfare for the population in the LDCs and other HIPCs.

The current focus on the HIPCs should not leave aside the debt problems faced by other LDCs which have not been included in this category. Eight of the latter have been classified by the World Bank as either severely or moderately indebted, although they are not HIPCs, and their situation also needs to be kept under review.[15] The debt relief requirements of non-HIPC LDCs should also be met, and they should be given assistance, as needed, in formulating appropriate financing and borrowing strategies.

There is merit in establishing a link between debt relief and poverty reduction. Such a link should not take the form of benchmarks or additional conditionality, which would add to budgetary pressures on the debtor countries. Debtor countries and their creditors could agree that resources released through exceptional debt relief be allocated to social and human development programmes. This would address donor and debtor concerns about poverty reduction, and perhaps also appeal to public opinion in the countries financing debt relief operations. Models for possible mechanisms are provided by the debt funds set up by Uganda and Bolivia (not an LDC, but one of the HIPCs) to channel contributions to debt relief. Such mechanisms could be of interest in particular to those LDCs that are not included in the HIPC category or are not primary candidates for HIPC relief.

Notes

1 ODA recipients on the DAC list of developing countries.
2 OECD, 1997, Statistical Annex table 39.
3 Performance in relation to the aid targets for LDCs is measured by taking into account bilateral aid disbursements plus imputed contributions through multilateral institutions.
4 Data for Luxembourg available only up to 1994.
5 OECD, 1997.
6 *Ibid.*
7 The grant element of ODA commitments to LDCs had reached 98 to 99 per cent by 1995 for the DAC countries as a whole.
8 See UNCTAD, 1996a, Part One, chapter II, section D.
9 UNCTAD, 1996b.
10 *Ibid.*
11 *Ibid.*
12 For the objectives and details of the HIPC initiative, see e.g. IMF, 1997.
13 *Ibid.,* table 2.
14 For a discussion of debt sustainability, the use of the net present value concept, eligibility criteria and target ranges, and of social and human development factors, see UNCTAD, 1997, forthcoming.
15 Among them, Gambia, Haiti and Malawi are considered to have exited from the Paris Club. Four of the others have not rescheduled their debts in this framework.

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Part Two

Agricultural Development and Policy Reforms in LDCs

Agricultural Development in LDCs

Chapter I

An Overview Of The Issues

A. Introduction

Agriculture is the most important economic activity in LDCs. In the early 1990s this sector provided about a third of the gross domestic product (GDP) of all LDCs, and employed more than two-thirds of the labour force. However, agricultural production has not kept pace with population growth in LDCs: in 1990-1994 agriculture had an annual average growth rate of 2 per cent, which was far less than the annual average population growth rate of almost 3 per cent. Food imports and food aid have thus been significant in meeting the shortfall between domestic agricultural production and food requirements in many LDCs. In 1990-1993, LDCs' food imports averaged 3.6 per cent of GDP, increasing to almost 5 per cent over the same period for African LDCs, which form the bulk of the LDC group (UNCTAD, 1996).

Economic policies in many LDCs proved detrimental to their agricultural sectors. The result has been stagnation of agricultural production.

The inefficiency and low growth of much of LDC agriculture are explained by a combination of factors, including traditional production relations, rudimentary technology and insecure land tenure arrangements within a context of low and unreliable rainfall, particularly in African LDCs. In addition, LDC governments over the past decades have pursued policies which discouraged innovation and investment in agriculture. These include overvalued domestic currencies, intervention in agricultural marketing (e.g. price controls which keep food prices low for urban consumers, and inefficient crop marketing boards), overtaxation of agricultural exports, and urban bias (the consequence of which is poor rural infrastructure and lack of basic facilities in rural areas) (Harrison, 1990; Cleaver and Donovan, 1995; Borlaug and Dowswell, 1995). Increasing agricultural production on a sustainable basis in LDCs will require radical changes in farming systems, improvements in land tenure systems, introduction of technological innovations, institutional development, reversal of past policies, and measures to tackle land degradation and associated environmental problems as a matter of urgency.

The chapters in this part of the Report address various aspects of the agricultural issues in LDCs, and draw policy conclusions based on country-specific experiences. This part of the Report is eclectic in its approach, bringing together several issues which have importance for a wide range of LDCs. These include the global context, environmental concerns and the importance of institutions such as rural credit markets to agricultural development. In all, there are five chapters, which deal with the specific issues set out below.

The *Uruguay Round Agreement* (URA) has significantly altered the international context for agricultural trade. The Agreement on Agriculture restricts the use of trade-distorting agricultural policies, particularly in the developed countries, and seeks to enhance the transparency of international agricultural trade through the conversion of all non-tariff measures, including quantitative restric-

tions, into tariffs. The implications of these and other aspects of the URA for LDC agriculture are examined in chapter 2.

The debate on *food security* has been significantly transformed by Sen's seminal work (1981), which questioned food availability decline (i.e. decline in food stocks) as the major cause of famines. Food security issues are at present analysed from the viewpoint of "entitlements", i.e. the ability of households or individuals to command access to food. Chapter III discusses the ramifications of agricultural policy reforms for LDCs' food security, in particular the ramifications of those policies necessitated by structural adjustment programmes (SAPs) and the URA.

The debate on the *environmental effects* of agriculture is ongoing, and is sometimes controversial (see, for example, Leach and Mearns, 1996), but much of the research suggests a link between agricultural activities and environmental degradation, especially in LDCs. The agriculture-environment nexus is the focus of chapter 4.

Among several factors identified as limiting the supply response of agriculture to price changes, one frequently cited is the problem of the supply of credit, which has persisted despite much-publicized attempts by governments to come to grips with it. This Report continues the debate, drawing particularly on new developments in the area of rural finance and UNCTAD's ongoing research into the impact of recent financial sector reforms in LDCs. The penultimate chapter analyses the issue of *rural finance* and suggests some pragmatic ways of increasing the supply of credit to farmers in LDCs.

The final chapter explores the *policy implications* for LDC agriculture of the analyses in chapters 1 to 5, and particularly the implications of the relative success of agricultural development in the more advanced developing countries of South and East Asia. The present overview briefly examines the causes of agricultural stagnation in LDCs and summarizes some relevant policy recommendations.

B. Causes of agricultural stagnation in LDCs

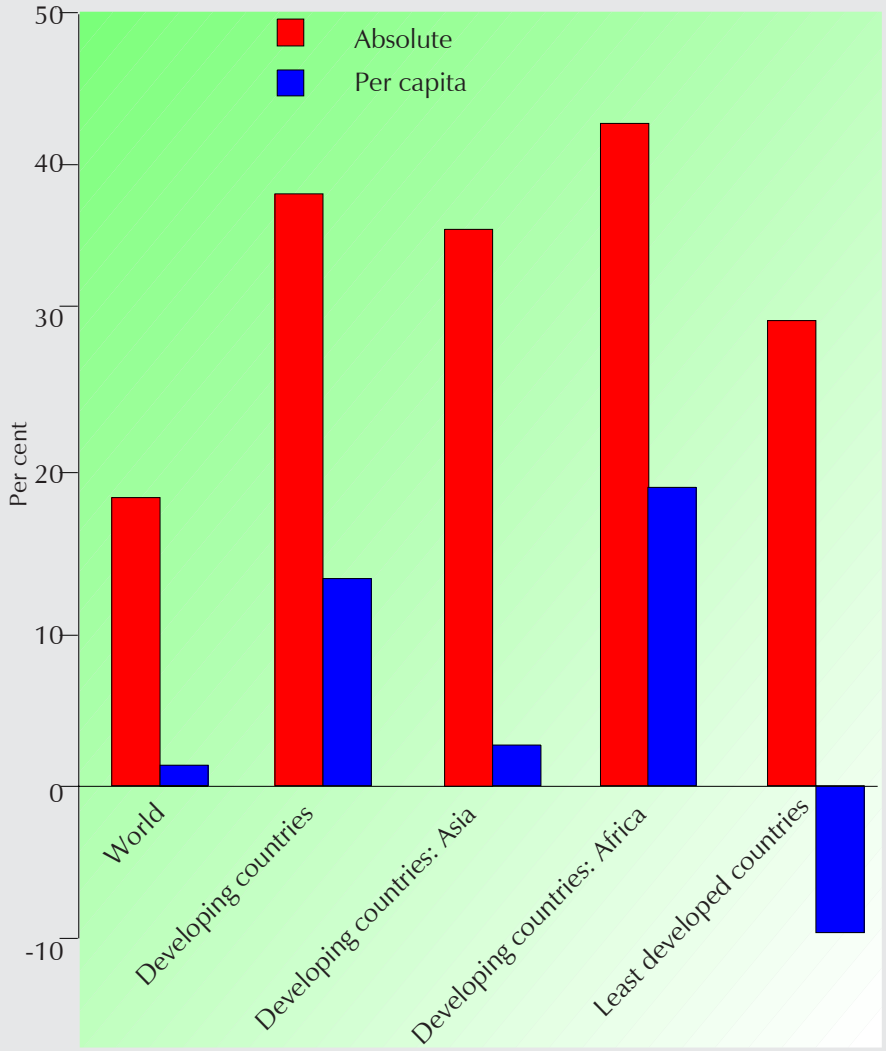
Sluggish growth in per capita agricultural production in LDCs (see table 6 and chart 6) can be explained by a variety of factors. The most important of these are socio-economic structures which determine prevailing farming systems (see box 6), environmental factors (discussed in chapter 4 of this part of the Report), the macroeconomic policy framework, rudimentary technology, paucity of credit, inadequate public investment in rural physical and social infrastructure, and weaknesses in institutional infrastructure.

TABLE 6: AGRICULTURAL PRODUCTION INDICES
(Averages, 1989-1991=100)

	Absolute		Per capita	
	1984-1985	1994-1995	1984-1985	1994-1995
World	90.3	107.1	99.3	99.8
Developing countries	84.5	116.6	94.7	107.1
Developing: Africa	81.4	110.7	95.4	97.5
Developing: Asia	83.4	119.4	92.7	110.6
Least developed countries	90.9	118.3	104.3	94.3

Source: FAO, 1995.

CHART 6: ABSOLUTE AND PER CAPITA CHANGES IN AGRICULTURAL PRODUCTION BETWEEN 1985 AND 1995, IN LDCS AND THE REST OF THE WORLD



Source: UNCTAD, based on FAO, 1995.

Unlike in developing countries as a whole, per capita food production in LDCs has actually fallen over the past ten years.

SOCIO-ECONOMIC STRUCTURES

The organization of farming activities in LDCs (see box 6), particularly the mode of access to land, has retarded agricultural development in a number of LDCs. Research from outside Africa suggests that insecure land title can be a disincentive to long-term investments in land, as well as restricting access to credit (Harrison, 1990, p. 55). While traditional land tenure systems may have provided considerable security of tenure historically (Cleaver and Donovan, 1995, p. 7), they do not guarantee individual titles, and deny farmers the right to use farms or lands as collateral to secure loans to finance new investments.[1] Also, long-term investments which could improve yields and limit land degradation are discouraged. The rights of tenant or migrant farmers (i.e. non-community members) are even less secure and thus less conducive to long-term agricultural investment.

Rules of inheritance also militate against agricultural innovation and investment. These rules, which necessitate the division of a deceased person's farm(s) among numerous heirs, have often reduced farms to sizes which are too small – or where the deceased had several farms, to scattered plots which are too far

Box 6: LDCs' farming systems

Three main elements characterize the farming systems prevailing in LDCs: indigenous land tenure systems, traditional production relations and rudimentary technology.

(i) Access to land

Different tenurial systems coexist to varying degrees in different LDCs or in different regions or even districts of the same LDC. Traditional land tenure systems coexist with private land ownership in several LDCs. In others, such systems have been supplanted by "state lands"; that is, the State owns all lands, as in the cases of the Democratic Republic of the Congo, Ethiopia (under the Mengistu socialist regime), Mauritania, the United Republic of Tanzania and Zambia, although occupier rights are recognized (Harrison, 1990, p. 55).

At the risk of over-generalization, it may be said that access to agricultural land in LDCs is primarily defined by tenurial arrangements which are specific to different land-owning communities (e.g. societies, tribes).[1] While several land tenure systems acknowledge individual land titles, particularly with the advent of modern statehood, many such systems in African LDCs are steeped in traditional notions of land use and management which vest "community lands" in the head of the community or land-owning group, who may be a king, a chief or a family head. The members of the community or group, defined by putative or real kinship relations, have only usufructuary rights to plots allocated to them - that is, the right to use the land, but not to dispose of it permanently to non-group members, whose access to land is regulated by customary rules and usage. Such rights may have become permanent over the years, especially in those African LDCs where market forces have penetrated these communities; but by and large, the notion of "community land", restrictions on individual land titling and traditional rules of inheritance have persisted in several African LDCs.

(ii) Production relations

The organization of farming activities assumes various forms in different LDCs, thus making generalizations difficult. However, two distinct modes of organizing such activities, which often coexist in the same community, can be identified.

Farming activities may be organized within the framework of household units, with acreage cultivated showing some correlation with household size. Under this arrangement, economic and household units are often coterminous, with farm work shared out among members of the household, usually headed by a male. Division of labour is, most often, gender-based or gender-sequenced, with females and males performing specific but related tasks. Commercial farmers may rely more on hired labour, especially during peak periods.

In most instances, however, the household may not act as a single economic unit. Responsibility for different crops or different varieties of the same crop (e.g. upland or swamp/irrigated rice) may be shared out among members along gender lines. Males may cultivate "cash crops" or crops for exports, while the females are responsible for food crops to meet the subsistence needs of the household. This type of arrangement generates different needs – extension, technological, etc. – among male and female farmers.

(iii) Technology

African LDCs in particular have not experienced the "Green Revolution" which significantly altered farming systems and increased productivity several times over in Asia. Farming technology is often rudimentary, consisting of the simple hand-held hoe, cutlass, and/or similar tools for clearing and digging the land and planting. Organic materials, such as compost, may be used to improve soil fertility, particularly in areas where animal husbandry is combined with crop farming, but there is little use of chemical fertilizer.[2] Only a small proportion of cultivated land is under irrigation in African LDCs: most agriculture is rain-fed, with annual output highly correlated with the amount and distribution of rainfall in a particular year. Agricultural growth in African LDCs has therefore been achieved by expansive, and not intensive, methods of farming – that is, by expanding acreage cultivated, rather than increasing productivity per acreage, which has become untenable under conditions of high population growth rates and increasing environmental degradation in many LDCs.

[1] The discussion below refers to LDCs in which sedentary agriculture is predominant. Land-use rights in transhumant pastoralist societies are generally underscored by common property rights in grazing land and water resources.

[2] Increases in per capita food production in East and South Asia over a 20-year period were attributed to fertilizer consumption, which increased fivefold. Over the same period sub-Saharan Africa recorded a decline in its per capita food production index, and the lowest fertilizer consumption rate, which was a fifth of Latin America's and only 5 per cent of East Asia's (Borlaug and Dowswell, 1995, p. 115).

apart – to justify any meaningful investment.[2] This is particularly the case in those LDCs facing shortages of cultivatable land because of high population growth rates (e.g. Burundi and Rwanda), mountainous terrain (e.g. Laos and Nepal) or environmental degradation (the Sahelian countries).

Macroeconomic policy framework

Agricultural investment has been discouraged by most LDC governments' past macroeconomic policies. Control of, and/or intervention in, input supply, agricultural processing and marketing, in the case of food crops to ensure cheap food for urban dwellers (for example, in Zambia), has created many distortions in agricultural trade. Supply of inputs has been inefficient and erratic – for example, fertilizers being delivered midway through the planting season – and high levels of protection for domestic industry, under import substitution industrialization (ISI) policies, have resulted in high costs of manufactured inputs. Administered prices, for various crops whose marketing is controlled by the government, are often insufficient to cover total costs of production,[3] thus further distorting the market. Moreover, agricultural exports are discouraged by heavy explicit taxation and overvalued domestic currencies (see e.g. UNCTAD, 1995, chapter II, section B; and chapter VI of this part of the Report).

Rudimentary technology

Because of the abundance of land and a general political neglect of the agricultural sector, few African LDC governments invested in yield-enhancing technology. Even where yield-improving technologies were available, land abundance in a number of LDCs, until relatively recently, combined with a scarcity of capital, dampened incentives to adopt them (Cleaver and Donovan, 1995, p. 4). As farmers could increase output simply by extending into virgin lands, there was little incentive to adopt intensive cultivation methods which required scarce capital for inputs such as fertilizer and seeds.

Farmers in LDCs have not adopted, on a wide scale, yield-enhancing agricultural technologies such as HYVs and irrigation.

High-yielding varieties (HYVs), which were pivotal in Asia's "Green Revolution", failed to spread in Africa mainly because of poor soils, low fertilizer application and poor management practices (Harrison, 1990, p. 57). Indeed, in view of much of Africa's low and unpredictable rainfall pattern, HYVs are unlikely to thrive without adequate irrigation facilities. Despite this, as noted by the World Bank, there has been little investment in irrigation agriculture – an important element in Asia's phenomenal agricultural growth – in sub-Saharan Africa (SSA). In cases where research investment was made, the resulting technology was unsuitable for the African LDCs' context, since it increased yield per unit of land, which is in abundance, by using increased quantities of relatively scarce labour and purchased inputs (Cleaver and Donovan, 1995, p. 4).

Credit constraints

Financial intermediation is very weak in most LDCs, especially in rural areas; these are not well served by formal sector financial institutions. Most farmers, especially small-scale farmers, are unable to access credit to finance land improvements, inputs or new technology (see chapter 6 of this part of the Report).

Inadequate public investment in rural infrastructure and social services

Most LDC governments have not adequately financed physical and social infrastructure such as roads, water, education and health in rural areas. Rural

roads in LDCs are mostly dirt tracks, which are impassable during the rainy season. The cost of transporting farm produce to local or urban markets is thus prohibitive; this further reduces the profit margins of farmers, and constitutes a great disincentive to agricultural investments.

By contributing to poverty alleviation, enhanced agricultural growth will have a significant impact on large sections of the population of LDCs who derive their livelihoods from agriculture.

Research has shown that uneducated farmers may not be as receptive to new ideas and technology as educated ones. Also, rural farmers are likely to lose many days through illness when they need to be at their healthiest in order to prepare, plant and attend to their farms (e.g. at the onset of rains and during the rainy season when malaria is most prevalent in the tropics). The lack of health facilities unnecessarily prolongs illnesses which could be promptly treated if an efficient health delivery system were available. Lack of safe drinking water increases the incidence of diarrhoeal diseases. As observed by the World Bank, 10-20 per cent of people in poor countries, mostly smallholders in Africa and South Asia, are too malnourished or unhealthy to work even under conditions of improved incentives (cited in Lipton, 1987, p. 203).

Institutional weaknesses

Agricultural extension services have been unable to reverse the declining trend of per capita agricultural production in a number of LDCs because they are grossly inefficient and ineffective. High farmer/extension worker ratios are exacerbated by a lack of means of transportation to enable extension workers to visit farmers regularly. Extension activities are often concentrated among male farmers to the detriment of their female counterparts, who are estimated to produce about 70 per cent of Africa's staple food (Harrison, 1990, p. 69).

Agricultural research has had limited impact on LDC agriculture because it is accorded low priority by a number of governments, is biased towards commercial farmers and the export sub-sector, and has weak links with extension services. While some benefits of research have accrued to the emergent smallholder sub-sector, subsistence farmers have been largely bypassed.

Attempts by a number of LDC governments and donors to address the above problems have not always been successful, although considerable success has been achieved in reforming and improving the efficiency of agricultural extension systems in Côte d'Ivoire, Ghana, Kenya and Nigeria (non-LDCs), and in Benin, Burkina Faso, Malawi, Niger, Togo, Uganda, the United Republic of Tanzania and Zambia (LDCs) (Cleaver and Donovan, 1995, p. 12). Most often, however, external assistance to improve LDC agriculture has yielded limited results because donors compete with one other, and do not coordinate their activities, which sometimes overlap (Harrison, 1990, *passim*; Cleaver and Donovan, 1995, p. 5).

C. Towards a dynamic agricultural sector in LDCs

It is not realistic to offer a blueprint for resolving LDCs' low agricultural productivity: these countries have different social and economic characteristics, and are situated in different ecological and climatic zones. Actual solutions will vary for different LDCs, but a sustainable agricultural strategy for this group of countries must necessarily be multifaceted.

There are compelling reasons for LDC governments to prioritize the agricultural sector. By contributing to poverty alleviation, enhanced agricultural growth will have a significant positive impact on large sections of the population of LDCs who derive their livelihoods from that sector. Furthermore, to maintain current levels of food consumption, agricultural growth and/or food imports must keep pace with prevailing high population growth rates. A dynamic agricultural sector will guarantee improvements in the nutrition and health status of the populations of LDCs. Increases in rural incomes will lead to qualitative improvements in rural life and expand domestic markets.

Furthermore, a dynamic agricultural sector would provide the basis for agro-processing industrialization, which could enhance employment opportunities in both urban and rural areas. The combined knock-on effects on urban areas could be positive if improvements in rural life and enhanced job opportunities stemmed the flow of population from the rural to urban areas.

A dynamic agricultural sector will facilitate improvements in the nutrition and health status of the populations of LDCs and, by increasing rural incomes, will expand domestic markets.

It is widely acknowledged at present that correcting distortions in agricultural pricing is a necessary but *not sufficient condition* for attaining high and sustainable growth rates in LDC agriculture. This is because stabilization and structural adjustment programmes being implemented by most LDCs have had a limited impact on agricultural growth so far (see chapter 6 in this part of Report). Other "non-price" constraints on LDC agriculture must also be tackled as a matter of urgency. A viable long-term agricultural strategy in LDCs must address the following:

- macroeconomic policies;
- rudimentary agricultural technology;
- constraints on the adoption of technological innovations (e.g. insecurity of tenure, shortage of credit, and weak rural physical and social infrastructure);
- poor access to markets for inputs and outputs;
- weak institutional support (e.g. extension services).

Macroeconomic policies

The incentive framework for agriculture must be strengthened by formulating and implementing appropriate macroeconomic policies with direct and indirect consequences for the agricultural sector. This may require:

- *maintaining the exchange rate* at realistic levels, which will increase incomes, in terms of local currency, for farmers cultivating export crops, as well as boost demand for domestically produced import substitutes (which could benefit all farmers producing marketable surpluses) through expenditure-switching effects;
- *reduction in direct taxation of agricultural output*, in particular of export crops, in order to reduce the tax burden on farmers and increase incentives for private investment in the agricultural sector;
- *trade liberalization* to enhance access to, and lower the cost of, imported inputs and remove impediments to export trade.

Appropriate agricultural technology

Technological innovations must be "appropriate", taking into consideration the environmental, social and economic context of LDCs' agriculture. Such technology should:

- be relatively inexpensive and affordable for LDC farmers;

- not require major increases in labour per unit of output;
- yield high returns;
- not depend much on imports or efficient supply networks where these are lacking at present (see Harrison, 1990, pp. 56-57);
- not entail significant increases in risks;[4]
- be environmentally sustainable.

Constraints on agricultural modernization

Constraints on the adoption of agricultural technological innovations in LDCs must be addressed. The most important include the mode of access to land and insecurity of tenure, paucity of credit, and lack of social and physical infrastructure in rural areas.

Improved efficiency of markets for inputs and outputs

Efficient agricultural marketing systems must be established. This may involve the privatization of existing inefficient crop marketing boards, although this is not the only option. Monopoly powers of crop marketing boards should be revoked and their subsidization stopped; restrictions on the private sector's participation in agricultural trade should be eased; and the rural road network and general transportation facilities should be improved to facilitate the movement of agricultural produce from farms to markets. This, together with trade liberalization, should improve the efficiency of input and output markets.

Institutional support

The objectives of *agricultural research* need to be redefined to include:

- research into food crops and into the needs of smallholders, who predominate in the agricultural sector;
- strengthening the link between research and agricultural activities.

The *agricultural extension* system has to be overhauled:

- to improve the management and efficiency of the extension delivery system, for example through the training and visit (T&V) system,[5] the "contact farmer" approach or the pyramid training scheme;[6]
- to reverse the gender bias in extension services.

D. Conclusions

The fate of the agricultural sector is inextricably bound up with that of the wider economy: sound policies in the latter will have a beneficial effect in the former.

Addressing the sluggish growth of LDC agriculture cannot entirely be dissociated from recovery in LDC economies. Sound macroeconomic policies that ensure a healthy economy through efficient utilization of scarce resources will have significant beneficial effects on the agricultural sector. An efficient transportation network will improve the efficiency of domestic markets (for inputs and outputs); a good educational system should improve the educational level of farmers and enhance their receptiveness to new farming practices and technology; and efficient rural financial intermediation will improve farmers' access to credit to finance investments and new inputs associated with new technology. Similarly, supply of potable water and an effective health care delivery system will enhance the health and productivity of farmers.

Experience in some developing countries has shown that the private sector may be more effective and efficient than public sector institutions in the marketing of inputs, delivery of improved technology and provision of credit (Borlaug and Dowswell, 1995, p. 125). In LDCs, private investment may thus be required in some of these areas (marketing of inputs/outputs, credit provision, etc.), but LDC governments must take the lead in providing other facilities, considering not only their "public good" character but also the weaknesses of the private sector in several LDCs. "Public goods" such as research and extension, and social and physical infrastructure, will for the foreseeable future remain the responsibility of the public sector in LDCs.

A problem prevalent in LDCs is that areas where environmentally fragile land is farmed are subject to simultaneous population pressure, poverty and food insecurity, thus complicating any possible solution. Also, these areas are usually difficult to reach, and lack infrastructure and investment capital as well as technical expertise. They are usually not endowed with the necessary resources to produce marketable surpluses and are therefore frequently excluded from agricultural initiatives. There is thus a special role for governments in assisting and promoting rational and environmentally sustainable development in these areas.

LDCs will need external resources and expertise if they are to achieve sustainable agricultural development.

Countries that have increased agricultural output, and hence food security, have a track record of strong political emphasis on economic incentives for agricultural production, and investments in training, research and extension services. This underlines the importance of promoting research efforts to make available, and implement, new agricultural technology. The main tools to achieve this goal are:

- advice to, and support for, governments as regards giving higher priority to sound national agricultural policies and their adjustment to new international trade regimes, in particular the Uruguay Round Agreements;
- revitalization of national agricultural extension, training and research facilities, including national universities, with particular emphasis on creating capabilities for reaching resource-poor and female farmers;
- reorientation of national extension and research systems with the aim of creating more environmentally sustainable agricultural systems;
- close cooperation with the international agricultural research systems, particularly the Consultative Group on International Agricultural Research (CGIAR), to ensure a clear focus on production impacts on farmers' fields in international research efforts.

Without external assistance, almost all LDCs lack the necessary skills and resources to undertake the huge investments involved in the activities and policies suggested above, a fact which underscores the need for enhanced technical and financial assistance.

Notes

1 It should be noted, however, that banks are often reluctant to accept (private) land as collateral because it is not easily marketable.

2 The Food and Agriculture Organization reports that in Burkina Faso, each household has an average of 9.6 plots of land, with an average size per plot of 0.4 hectares (FAO, 1996, p. 111).

3 The difference between world market prices and administered prices was in most cases expected not only to protect farmers from the fluctuations in world market prices but also to fund subsidized inputs to farmers. However, both objectives were attained in only very few LDCs: administered prices in several cases represented a small percentage of world prices; subsidized inputs were almost always in short supply; and the inefficient distribution systems favoured large commercial and politically well-connected farmers to the extent that most smallholders lost out.

4 The rate of adoption of agricultural technology may also depend on government policies and extension services which limit the risk to farmers associated with the adoption of such technology (see chapter 6 of this part of the Report for a detailed discussion).

5 This involves fortnightly work plans and close supervision of extension workers to ensure that they visit farms. Regular training sessions for extension workers and their close links with research also ensure that they are regularly upgraded (see Pickering, 1989; Roberts, 1989; Harrison, 1990).

6 In the "contact farmer" approach, the extension worker concentrates efforts on one "contact farmer", who in turn is expected to disseminate knowledge gained to other farmers in his group (contact farmers may represent different socio-economic groups in the farm population). Under the pyramid training scheme, two or three national trainers train about 20 regional trainers; each of the latter trains another 20 trainers, who also train another 20, and so on (Harrison, 1990, p. 67).

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Chapter 2

Opportunities for LDC Agriculture in the World Trading System and the Impact of the Uruguay Round Agreement

A. Introduction

The Uruguay Round of GATT trade negotiations covered several new areas, one of which was agriculture, for which it initiated a programme of trade liberalization. This chapter examines the consequences for LDC agriculture of the Uruguay Round Agreement on Agriculture (URAA). Four broad issues are examined: the impact of agricultural trade liberalization on the global market for traditional LDC export commodities; opportunities for LDC export diversification; the impact of the expected higher world food market prices on food production in the LDCs; and provisions in the Uruguay Round Agreement for increasing food production in the LDCs. The URAA, which directly impacts on agriculture, is summarized in the next section in order to provide a context for the discussion of these issues.

B. The Uruguay Round Agreement on Agriculture

The objective of the Uruguay Round was to achieve greater liberalization in international agricultural trade through enhanced transparency in three areas: market access, domestic support and export subsidies. Non-tariff barriers (NTBs), including quantitative restrictions, are to be replaced by tariffs which provide approximately the same level of protection. Tariffs resulting from this "tariffication process" and other tariffs on agricultural products (see below) are to be reduced by an unweighted average of 36 per cent over six years (1995-2000) by the developed countries, and by 24 per cent over ten years (1995-2004) by the developing countries (*market access*). All direct and indirect subsidies to agriculture are to be restrained (*domestic support*), and *export subsidies* are to be rationalized and cut down. LDCs, like other countries, are required to tariffy NTBs and bind their tariffs, but unlike the others, they are exempted from all reduction commitments (see table 7 for a summary of the URAA). "Agricultural products" as defined by the URAA exclude fish and fish products, forestry products and natural rubber, which together with minerals and metals are treated as industrial products (UNCTAD, 1996, p. 59).

Two other Agreements of the Uruguay Round – the Agreement on Sanitary and Phytosanitary Measures, and the Agreement on Technical Barriers to Trade – will also impact on international trade in agricultural products (see discussion below).

TABLE 7: SUMMARY OF SELECTED PROVISIONS IN THE URUGUAY ROUND AGREEMENT ON AGRICULTURE

Subject	Rules	Liberalization	Safeguards	Special treatment
Market Access	• Tariffication of all NTBs • Bind overall tariffs • No new NTBs	• Overall tariffs to be cut by 36 (24) per cent • Minimum tariff cut 15 (10) per cent	• Guaranteed current or minimum access • Protection against import surges	• No reduction by LDCs • Delayed tariffication
Domestic Support	• Specification of "amber" type and "Green Box" policies	• Reduce total outlays on "amber" policies by 20 (13.3) per cent	• "Green Box" policies can continue	• *De minimis* rule • Decoupled support payments excluded • Extra exemptions for developing countries and LDCs
Export Subsidies	• Commodity specific categorization of assistance • No new subsidies for other commodities	• Lower expenditure by 36 (24) per cent • Reduce volume by 21 (14) per cent	• Adherence to food aid rules • Export credit provisions and guarantees	• Developing countries' and LDCs' internal transport and marketing costs exempted

Source: GATT, 1994a, in UNCTAD, 1995a.
Notes: Figures in brackets refer to magnitudes pertinent to developing countries.
"Green Box" policies are those which have no, or minimal, trade-distorting effects.
"Amber" type policies are those with significant trade-distorting effects.

C. Impact on LDCs' commodity exports

The overall outlook for agricultural commodity markets in the 1990s is a slowdown in growth rates compared with the 1980s. The Uruguay Round is not considered to have changed that outlook to any significant extent.[1] Assessments by UNCTAD, FAO and other organizations show that, on the whole, the net impact of the Uruguay Round on commodity markets at the global level is likely to be modest. This is particularly the case for those primary agricultural commodities produced and exported by the LDCs, since protectionism was already relatively low for most of these commodities before the Uruguay Round. In the case of temperate-zone products, which are also produced and exported to a limited extent by the LDCs, e.g. vegetables, fruits and cereals, the effects of trade liberalization could potentially be greater, but by and large these products are not major export items of the LDC countries.

TRADITIONAL EXPORT COMMODITIES

Tropical beverages (coffee, cocoa and tea) are not import-competing products in the developed countries and their market access conditions were already relatively good before the conclusion of the Uruguay Round. Moreover, during the past 15 years or so, these commodities have suffered as a result of falls in real world market prices, largely because of a sizeable potential for increased output

in major producing countries in the face of relatively inelastic import demand. These factors are likely to continue to influence the trends in these markets in the future, with the Uruguay Round playing a relatively minor role.

The global demand for *agricultural raw materials*, such as natural fibres, has been weak over the past two decades. These commodities have suffered more from the growth in the use of synthetic substitutes than from other factors. However, with increasing consumer awareness of environmental issues, they have the advantage of being "natural" products, and therefore the demand for them should hold up better. With virtually no or very low import duties already in most major markets, the direct impact of any further tariff reductions on these raw materials will be small. The demand for cotton textiles, however, is expected to be boosted with the lifting of the Multi-Fibre Arrangement (MFA) by 2004. Several LDCs, especially those in West, Central and East Africa, could benefit from this.

The world *banana* market is demand-driven, with very few import barriers in major importing countries other than the EU, where imports are regulated through tariff quotas.[2] As regards *sugar*, the Uruguay Round did not change much the import regimes in both the EU and the United States, the two largest markets. However, world market prices are projected to rise somewhat, mainly because of increased demand for sugar in the developing countries.

With the post-UR import tariff rates in the developed countries estimated to fall only modestly, from already low levels, the Uruguay Round is not likely to impact much on the global trade in and world prices of *hides and skins* as well as leather. However, the current trend in increased processing of hides into leather and further into products in the developing countries, in part due to cost advantages but also due to less restrictive environmental constraints, is expected to be sustained.

Non-traditional commodities

By contrast, world trade in several *non-traditional commodities*, such as fruits and vegetables, has increased relatively quickly in recent years. This trend is projected to grow further (see below), because of both trade liberalization and the expected continuation of world income growth over the medium term. As these commodities are also generally protected in many countries,[3] further trade liberalization offers potentially significant opportunities for trade in them.

One impact of trade liberalization, however, is the loss of preferential margins. The LDCs have preferential access to developed country markets for most agricultural commodities under various preferential trading arrangements, such as the Generalized System of Preferences (GSP) and the Lomé Convention. With the reduction in the most favoured nation (MFN) tariff rates following the Uruguay Round, the LDCs stand to lose in terms of the margin of preferences (i.e. erosion of preferences), with negative consequences for their market share. However, for most traditional primary agricultural commodities, notably tropical beverages and agricultural raw materials, the extent of tariff preferences is low, since imports in developed country markets are either free of duty or subject to very low tariffs. For these commodities, the LDCs would have to compete for market shares in developed countries on an equal basis with non-LDC exporters. For some other commodities, e.g. sugar and bananas, preferential margins for those that have market access will continue to remain high under present import arrangements.

A major challenge facing LDCs is the task of improving their competitive position in exports by overcoming supply-side constraints.

In summary, changes in market access conditions due to the Uruguay Round are not considered to contribute markedly to boosting global trade and world market prices of most traditional primary agricultural commodities exported by the LDCs. However, the impact will be felt in terms of some shifts in the location of production, as competition intensifies among exporters in a freer global trading environment. One major challenge facing the LDCs will therefore be to improve their competitive position in exports by overcoming supply-side and other related constraints.

D. Consequences of changes in world market prices for domestic food production

FAO assessments of the impact of the Uruguay Round on global food markets, based on the World Food Model, show relatively small impacts on production at the global level -world production of most food items[4] rising by an additional 1 to 3 per cent over their baseline volumes in the year 2000. However, there is some shift in production across regions or countries, with generally lower production in the developed countries of those commodities which have been subject to a high degree of protection in the past, and increased output in the non-subsidizing, low-cost producing countries, including some developing countries.

For the LDCs, the impact of the Uruguay Round on the production of basic food commodities was estimated to be positive, but very small, with outputs rising by an additional 0.2 to 1.5 per cent over their baseline volumes in the year 2000. In absolute terms, these amount to less than 100,000 tons, except for wheat and coarse grains. On the other hand, with increased domestic market prices as a result of higher world prices, domestic utilization contracts somewhat. Consequently, net imports fall slightly *ceteris paribus*.

In the FAO's World Food Model, as in other models of this type, three factors largely determine the assessed outcome of domestic production: the magnitude of price changes in international markets; the extent to which such changes are transmitted to domestic markets, transmission being greater where trade barriers are lower, domestic market distortions are fewer in number and other structural factors such as the transport network facilitate the transmission process; and supply elasticities. Of these, changes in world market prices and their transmission are the most directly related to the Uruguay Round.

For the LDCs, changes in world market prices are largely given, in view of their minor position in world trade. The LDCs were not required in the Uruguay Round to reduce their bound tariffs, and were modelled accordingly. Thus, with no tariff reductions, and given the higher world prices due to the Uruguay Round, domestic prices would normally rise. The impact of the Uruguay Round on real world market prices of basic foods is projected to be positive but modest, compared with the scenario without the Uruguay Round. UNCTAD's assessment based on the World Food Model shows positive price changes for basic food commodities ranging from 6 to 11 per cent in one scenario, and from 1 to 6 per cent in another. FAO projections based on a similar model also indicate positive price changes of 4 to 10 per cent (see UNCTAD, 1995b, Addendum, table 11, p. 15).

Supply elasticities (i.e. the extent of farmers' response to price changes) are also affected by supply-side constraints, or structural factors, such as transport

and availability of other infrastructure and agricultural inputs. Since the values of the transmission elasticities as well as the supply elasticities are considered to be quite low for the LDCs, the impact of the higher world market prices generated by the Uruguay Round on food production in the LDCs is expected to be modest but positive.

E. Opportunities for export diversification

It is generally acknowledged that supply-side problems have historically played a dominant role in limiting export diversification by developing countries into non-traditional commodities and processed products. Indeed, many of today's successful developing countries with diversified agricultural export structures were at one time heavily dependent on primary agricultural commodities, e.g. Chile, Indonesia, Malaysia and Thailand. They achieved success while facing an external trading environment similar to that faced by all other developing countries. In some respects, that environment was worse for this group of countries, since by and large they did not benefit from preferential trading arrangements. Many LDCs failed to diversify their exports despite their having received some trade preferences from the developed countries. This failure has been attributed to several factors, including supply-side constraints as well as the cumbersome administration of these preferential schemes, which resulted in low utilization rates (for problems relating to the utilization of GSP schemes, see UNCTAD, 1993).

Many of today's successfully diversified developing countries were at one time heavily dependent on primary agricultural commodities.

The Uruguay Round has opened up new opportunities for export diversification in agriculture, through *inter alia* across-the-board reductions in MFN tariffs on agricultural products; the reduction in tariff escalation, which favours processed exports; and the strengthening of trade rules, particularly those on sanitary and phytosanitary measures and technical barriers to trade.

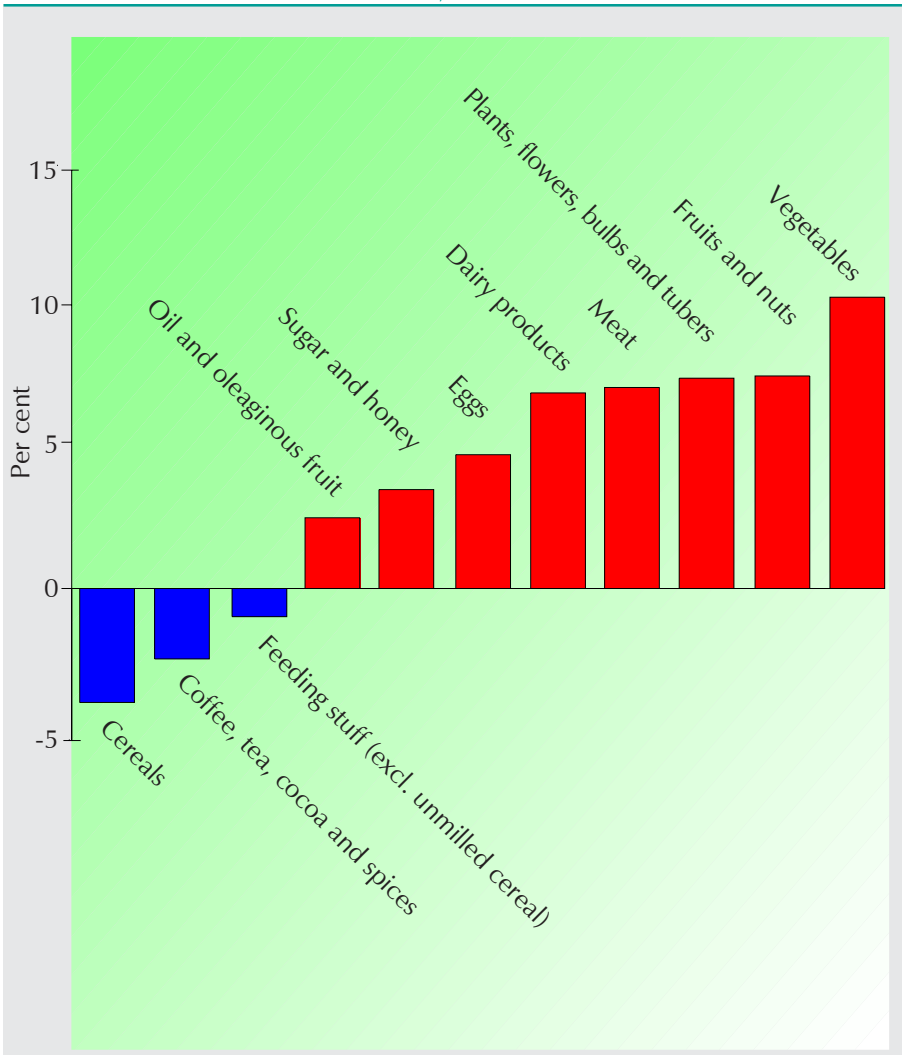
Export prospects in non-traditional agricultural products

While traditional primary commodities exported by the LDCs suffered from slow growth in world import demand and secular declines in real world prices, several non-traditional agricultural commodities (NTCs), particularly but not exclusively in the horticultural area, have been growing relatively fast in the world market and are becoming increasingly important for some developing and least developed countries, including Uganda and Zambia. For example, an FAO study (Koroma, 1997) on selected NTC exports to the EU, Japan and the United States estimated that their total global value, which amounted to 19 per cent of global agricultural imports in 1994, grew at a rate of almost 11 per cent per annum during 1985-1994, compared with about 6 per cent per annum for other agricultural imports.

Import data from members of the Organisation for Economic Co-operation and Development (OECD) also confirm that the annual growth rate of processed agricultural and NTC imports (fruits and nuts, vegetables, and plants/flowers) into the OECD countries for the period from 1980-1982 to 1990-1992 far exceeded that for traditional agricultural products (see charts 7 and 8). Import values of coffee, tea, cocoa and spices actually declined by 2.6 per cent per annum over that period (see table 8).

The more rapid import growth of NTCs is underscored by three factors: first, the consumer preferences associated with rising incomes in the industrialized

CHART 7: CHANGE IN TOTAL BASIC AGRICULTURAL IMPORTS OF OECD COUNTRIES (EXCLUDING INTRA-EU TRADE), 1980-1982 TO 1990-1992



Source: UNCTAD, based on FAO, 1996.

countries; second, the ability of certain developing countries to increase their capacity to supply commodities at competitive prices, mainly during the off-season for domestically produced fruits and vegetables in the importing countries; and third, the development of lower-cost transportation and communications, and the greater availability of production and marketing technology in developing countries.

According to the preliminary results of the FAO study mentioned above, some opportunities for an even greater growth in exports of NTCs by developing countries have been created by the reduction in tariffs under the Uruguay Round in the EU, the United States and Japan, which together account for over 60 per cent of the value of world trade in these commodities. In the EU and the United States, tariff rates for *selected NTCs* are to be reduced on average by about 20-40 per cent. The EU has granted duty-free access for nutmeg, mangoes and watermelons. In the United States, kiwi fruit currently has duty-free access. Japan does not apply any seasonal tariffs, and the *ad valorem* tariff equivalent rates for NTCs are to be reduced by between 15 and 60 per cent.

For *selected NTCs* as a whole, the combined value of imports in the above three markets in the year 2000 is projected to be nearly 10 per cent higher

TABLE 8: IMPORTS OF THE OECD COUNTRIES, EXCLUDING INTRA-EU TRADE
(Current $ million)

	1980-1982	1990-1992	Annual growth rate (%)
Basic agricultural products			
Meat	6 307	12 333	6.9
Dairy products	21	41	6.8
Eggs	81	127	4.6
Cereals	9 762	6 403	-4.1
Vegetables	2 306	4 670	7.3
Fruits and nuts	7 255	14 868	7.4
Sugar and honey	2 287	2 910	2.4
Coffee, tea, cocoa and spices	13 068	10 044	-2.6
Feeding stuff (excl. unmilled cereals)	7 111	9 800	3.3
Oil seeds and oleaginous fruit	7 583	6 799	-1.1
Plants, flowers, bulbs and tubers	1 006	2 690	10.3
Total imports of basic products	**56 787**	**70 683**	**2.2**
Processed agricultural products			
Meat	1 206	1 761	3.9
Dairy products	1 639	2 433	4.0
Eggs	57	69	2.1
Prepared cereal products	919	2 802	11.8
Vegetables	1 885	4 244	8.5
Fruits	2 572	6 304	9.4
Sugar and sugar preparations	2 925	1 937	-4.0
Coffee, cocoa and chocolate	2 210	3 116	3.5
Margarine and shortening	71	76	0.6
Edible products and preparations n.e.s.	874	2 817	12.4
Animal and vegetable oils (excl. fish oil)	2 996	3 816	2.4
Total imports of processed products	**17 350**	**29 374**	**5.4**
Total imports	**74 137**	**100 057**	**3.0**

Source: FAO, 1996, p. 8.
Note: n.e.s = not elsewhere specified.

Although traditional primary commodities exported by the LDCs suffered from slow growth in world import demand and secular declines in real world prices, non-traditional agricultural exports are becoming more important.

with the Uruguay Round Agreement than without it.[5] From $13.6 billion in 1994, the value of the *selected NTC* imports is projected to increase to $16.4 billion in 2000 without the Uruguay Round Agreement, and to $18 billion with it. These increases will naturally depend on the extent to which the agreed commitments under the Uruguay Round are implemented by the importing developed countries.

REDUCTION IN TARIFF ESCALATION

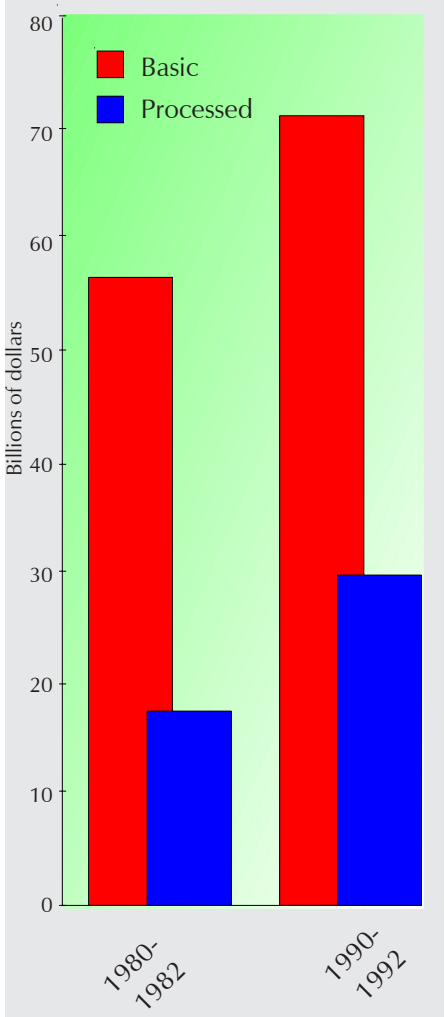
Another potentially beneficial effect of the Uruguay Round for the development of value-added industries in the LDCs is the reduction in tariff escalation. Tariffs have generally been higher on processed agricultural products than on their primary commodities. This tariff wedge between a processed commodity (e.g. orange juice) and its corresponding primary commodity (e.g. oranges) is often referred to as tariff escalation and has been one of the obstacles for primary-product-exporting countries in their efforts to establish processing industries. The FAO has undertaken a detailed study of changes in tariff escalation as a result of Uruguay Round tariff concessions, examining the changes in the tariff

Another potentially beneficial effect of the Uruguay Round for the development of value-added industries in the LDCs is the reduction in tariff escalation.

structure of the EU, Japan and the United States for 226 agricultural processed commodities, which together account for 45 per cent of world imports of processed agricultural products (Lindland, 1997).

This analysis confirms earlier analysis by the GATT (1994b) and UNCTAD (1995b) indicating that tariff wedges have on the whole decreased, with both negative and positive tariff wedges converging towards zero. In the case of natural-resource-base products, the average tariff applied to semi-manufactures has been reduced to the same level (2 per cent) as for raw materials; and the tariff wedge on finished natural-resource-base products has decreased from a pre-UR level of 4.4 per cent to a post-UR level of 3.9 per cent (GATT, 1994b, p. 15). However, even after the full implementation of the Uruguay Round tariff concessions, high levels of nominal tariff escalation will remain for a number of commodity pairs (see UNCTAD, 1995b).

CHART 8: TOTAL BASIC AND PROCESSED AGRICULTURAL IMPORTS OF OECD COUNTRIES (EXCLUDING INTRA-EU TRADE), 1980-1982 AND 1990-1992



Source: FAO, 1996, p. 8.

The LDCs also export a range of processed products based on their traditional primary products, such as coffee extracts, cocoa pastes, crude vegetable oils and leather. However, the post-UR tariff rates on these products will be relatively low. As a result, reductions in the tariff escalation of these products would offer considerably fewer additional export opportunities. On the other hand, tariff escalation has been substantially reduced for many important processed commodities, not traditionally exported by the LDCs and which offer some export opportunities. These include cigarettes, some dairy products and certain animal feedstuffs in the EU; wine, and some dairy and meat products, in Japan; and orange juice and certain dairy products in the United States. The annual growth rate of processed agricultural products in the OECD during 1980-1982 to 1990-1992 – 5.4 per cent – is more than double the per annum growth rate for basic agricultural products of 2.2 per cent (see table 8). Additional export opportunities for LDCs look promising if this growth rate is sustained.

A number of product chains important to developing countries (e.g. cocoa, coffee, vegetables, fruits and nuts) are still subject to tariff escalation, despite the evidence of reduced escalation. Overall, tariff escalation appears to be common in Australia and New Zealand, although tariffs applied to processed products in those two countries are generally lower than OECD averages, and tariffs on basic products are often very low or zero (FAO, 1996).

Sanitary and phytosanitary standards play an increasingly prominent role in the case of processed products, especially foodstuffs. Arguably, these are more likely to be important determinants of market access for LDCs' processed products in the short to medium term than tariff escalation, and therefore deserve further analysis, particularly as regards assessing their diversification potential in the immediate future.

AGREEMENTS ON SANITARY AND PHYTOSANITARY MEASURES AND TECHNICAL BARRIERS TO TRADE

The Uruguay Round Agreements on Sanitary and Phytosanitary (SPS) Measures and Technical Barriers to Trade (TBT) are particularly important for export diversification by the LDCs. Whether processed or not, exports from LDCs will face relatively stringent human and animal health and other standards in the export markets, especially in the developed countries, where standards are high. In the absence of the SPS and TBT Agreements, these exports were vulnerable to unilateral trade restrictions, as many GATT disputes have shown.

Under the SPS Agreement, countries must base their SPS measures on international standards, guidelines or recommendations, where these exist, except as otherwise provided for in the SPS Agreement. Thus, transparency and science-based standards are encouraged and the SPS measures are to be applied in a non-discriminatory manner. The existence of these rules should encourage private investment in processing industries, a critical problem in the past. On the other hand, the LDCs may face the possibility of increased cost of production and lack of skills in meeting such standards. In this regard, there are provisions in the SPS Agreement for technical and financial assistance to help LDCs in their implementation of the SPS Agreement. LDCs should take advantage of such assistance.

Some of the most important determinants of market access for LDCs' processed products in the short to medium term are likely to be sanitary and phytosanitary standards.

F. Provisions for increasing food production in the LDCs

The Uruguay Round explicitly recognized the difficulties faced by developing and least developed countries in terms of their integration into the global trading system, and made several provisions for special and differential treatment for them. These include the special provisions of the Agreement on Agriculture for LDCs, the *Ministerial Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries* and the *Ministerial Decision on Measures in Favour of Least Developed Countries*. This section, however, focuses on selected provisions for the LDCs which are directly related to food and agricultural policies and to food security.

Provisions related to food production policies

The Agreement on Agriculture does not ban any specific production policy, either for developed or developing countries, not even those policies that have a production- and trade-distorting effect. Nevertheless, the current aggregate level of support associated with all such policies, i.e. the current Aggregate Measurement of Support (AMS),[6] should not exceed that provided in the Base AMS in the case of LDCs. However, nearly all the LDCs submitted a zero Base AMS (i.e. no support for agriculture) in their Schedules.[7] This limits their options for the use of production- and trade-distorting policies in the future (Konandreas and Greenfield, 1996, p. 437), except these policies falling into the Green Box category.

Although AMS-related support is limited for LDCs, provided that expenditures on price support policies are less than 10 per cent of the farm-gate value of production, such *de minimis* expenditures are in conformity with the URAA and not subject to reduction commitments. In practice, price support is often granted only to the marketed share of production in most developing countries, which implies that the per unit price support allowed under the *de minimis* provision can be significant for such countries.

In addition, an important provision is the Special and Differential Treatment under Article 6 (Paragraph 2), which includes a special category of production support policies specific to developing countries. These are agricultural input subsidies, generally available to low-income or resource-poor producers; widely available investment subsidies; and support to producers to encourage diversification from the growing of illicit narcotic crops. These important exemptions allow for considerable room to support agricultural producers.

A number of special measures are not applicable to LDCs, partly because they require an administrative capacity which seldom exists.

In addition to the exemptions listed in Article 6, Annex 2 of the Agreement (the Green Box) lists a number of domestic support policies that are exempted from reduction commitments. The Green Box policies are defined as having minimum market-distorting effects, and cover *inter alia* general services (e.g. research, pest and disease control, training, inspection, marketing and infrastructure), food security stocks,[8] domestic food aid, disaster relief, environmental programmes and regional assistance. However, a number of Green Box policies, especially those measures that entail decoupled income support to producers, are rare in LDCs. This is because, in part, they require an administrative capacity for designing and implementing targeted policies that is seldom available. Moreover, the extent of such policies is likely to be limited by budgetary constraints and not by the Agreement on Agriculture.

Provisions related to protecting domestic production from depressed world market prices and a surge in imports

A related concern of the LDCs is that a more open trade regime may render domestic production sectors more vulnerable to developments such as depressed world prices and/or a surge in imports, threatening domestic production, particularly of sensitive food commodities. A more open economy could also make domestic markets more volatile, hurting consumers, especially low-income ones. Before the Uruguay Round, countries could apply non-tariff measures such as import bans, and could usually vary import duties as well. Under the Uruguay Round, however, non-tariff measures are not allowed and the levels of ordinary tariffs should not exceed bound limits.

A majority of developing countries, including the LDCs, offered relatively high bound tariffs. This provides some flexibility in the sense that it allows a country to raise tariffs when it faces external threats such as those noted above. On the other hand, most developing countries and the least developed countries will not technically qualify for the use of the Special Safeguard Clause (which can be invoked in the event of depressed world prices and a surge in imports), as most of their products were not subject to the tariffication process (Valdes and McCalla, 1996, p. 425). Thus, in practice, whereas those LDCs which offered high ceiling bindings might have some protection, others which bound tariffs at lower levels may face difficulties from two sources. First, they cannot raise tariffs above the bound levels, and second, they do not have the option of recourse to the Special Safeguard Clause.

Another instrument of supply stability that is allowed by the Agreement on Agriculture is food security stocks. Although it is not clear whether these stocks could be used as an instrument for extensive price stabilization, they can be used to address specific food security objectives. The LDCs, as well as developing countries as a whole, are given some special treatment in the procurement and release of such stocks.

Provisions related to food import difficulties

The Uruguay Round also includes a provision aimed at providing some compensation to LDCs and net food-importing countries in the event that they face difficulties related to higher world market prices resulting from trade liberalization under the Uruguay Round. This is addressed under the Ministerial Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries. The Singapore Ministerial Conference (SMC) of the WTO endorsed a number of possible

specific actions to be taken by WTO Members in relation to the implementation of the modalities of assistance under this Decision.

Provisions related to technical assistance to increase food production and agricultural exports

The Uruguay Round made provisions for technical and financial assistance in many areas. For example, the Ministerial Decision on Measures in Favour of Least Developed Countries states that "the LDCs shall be accorded substantially increased technical assistance in the development, strengthening and diversification of their production and export bases including those of services, as well as in trade promotion, to enable them to maximize the benefits from liberalized access to markets". Provision was also made in other Uruguay Round Agreements and Decisions for technical and financial assistance to improve *inter alia* LDCs' agricultural productivity and infrastructure, e.g. the Agreement on SPS, and the other Ministerial Decision referred to earlier.

The SMC adopted the WTO Plan of Action for LDCs, which includes measures in the areas of capacity building and market access. The preparatory process for a High-Level Meeting of LDCs and international development agencies to actualize the Plan is currently under way. If Integrated Technical Assistance programmes being envisaged as the outcome of the High-Level Meeting materialize, they should go a long way to enhancing the competitiveness and diversification of LDCs' agriculture and exports in general.

The role of trade as a key element in achieving world food security was given added prominence in Commitment 4 of the *World Food Summit Plan of Action*, whereby the Heads of State and Government pledged to strive to ensure that food, agricultural trade and overall trade policies are conducive to fostering food security for all through a fair and market-oriented world trade system. They agreed that the progressive implementation of the Uruguay Round Agreement as a whole would generate increasing opportunities for trade expansion and economic growth for the benefits of all participants, and therefore adaptation to the provisions of the various agreements during the implementation period had to be ensured. The Plan of Action calls for the full implementation of the Ministerial Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries, recognizing that some least developed and net food-importing developing countries may experience short-term negative effects in terms of availability of adequate supplies of basic foodstuffs from external sources on reasonable terms and conditions, including short-term difficulties in financing normal levels of commercial imports of basic foodstuffs.

G. Conclusions

The impact of the Uruguay Round on traditional export commodities, which constitute the bulk of LDCs' agricultural exports, is likely to be modest because the URAA turned out to be less comprehensive than was anticipated when negotiations began. Significant reforms of the rules governing agricultural regimes in developed countries were achieved, but the degree of trade liberalization attained was limited. For example, uneven product coverage and limited liberalization in sugar and meat will restrict horizontal diversification possibilities for LDCs such as Zambia.

While tariff escalation has decreased generally, considerable tariff escalation still exists for a number of product chains, in particular those important to developing and least developed countries. The SPS and TBT Agreements have increased the transparency of the rules governing the application of sanitary and phytosanitary standards. This should be to the advantage of LDCs, but only if they are able to access the necessary technical assistance to enable them to meet the high standards set under those Agreements. The potential for vertical diversification into processed agricultural products by LDCs is therefore likely to be restricted to some extent by tariff escalation and the SPS and TBT Agreements.

The URAA is not too restrictive for LDCs in terms of supportive policies for agriculture: the AMS, which is not product-specific, guarantees flexibility in domestic agricultural support policies as long as global commitments reflected in the individual country schedules are not exceeded. Thus, there is enough room for the use of consumption support policies and other measures to mitigate the impact of world market volatility on domestic markets.

The special and differential treatment clauses incorporated in the various Agreements of the Uruguay Round itself, and the provisions in the Marrakesh Ministerial Decisions, may ease the transition process for the LDCs if two conditions are met. First, there must be a willingness on the part of LDC governments to undertake the necessary policy reforms in compliance with the URAA. Second, there must be the willingness and capability on the part of developed countries to provide the necessary financial and technical assistance to LDCs in support of policy reforms, e.g. to provide complementary infrastructure and to increase agricultural productivity.

The ultimate long-term benefits for LDCs as a result of improved market access depend on whether financial and technical assistance by the developed countries to the LDCs materializes.

Those LDCs able to make the necessary adjustments to their production structures, overcome their supply-side constraints and implement outward-oriented policy measures will be better placed to respond positively to the new agricultural regime. Within this context, LDCs currently implementing structural adjustment programmes (SAPs) may have some advantage over the others. Nevertheless, the possible long-term benefits for LDCs depend on whether financial and technical assistance by the developed countries to the LDCs materializes, as well as on the pace and quality of implementation of the URAA by the developed countries – that is, on whether major importers implement agreed commitments in full and change their import regimes and domestic agricultural policies accordingly. This has yet to be demonstrated and is almost impossible to predict. Despite this, the accomplishments of the URAA are of great potential significance for international agricultural trade. First, it has brought agriculture under comprehensive, multilateral discipline for the first time. Second, it has transformed a multiplicity of pre-Uruguay Round barriers facing international trade in agricultural products into transparent, albeit high and bound, tariffs. Third, and most important of all, the escalating costs of domestic support and export subsidies that impeded the efficient allocation of resources by the international market have been brought under control (UNCTAD, 1995b, p. 6).

Notes

1 For UNCTAD's analysis of the evolution of the prices of and trade in commodities to be expected in the light of the results of the Uruguay Round, with particular emphasis on their implications for developing countries, including their diversification prospects, see UNCTAD, 1995b. For the FAO's medium-term outlook on agricultural commodity markets, also including the effects of the Uruguay Round, see FAO, 1995.

2 As yet, it is unclear how the recent ruling by the WTO that the EU banana quota system violates the Uruguay Round Agreement will affect developing countries that are beneficiaries of the system.

3 For an account of the EU trade regime for fresh fruits and vegetables, see Swinbank and Ritson, 1994.

4 These are wheat, rice, coarse grains, vegetable oils and fats, oil cakes, meat and dairy products.

5 The analysis is based on estimates of import demand price and income elasticities (including for competing domestic commodities), and projecting this demand to the year 2000, taking into account the reduced import tariffs as committed under the Uruguay Round.

6 The Aggregate Measurement of Support refers to annual total domestic, product-specific and non-product-specific expenditure in support of agricultural producers provided by policies not banned by the URAA. It includes the value of any market price support provided in the case of administered prices, estimated using external reference prices. "Base AMS" is the AMS calculated for the base period, 1986-1988, and "current AMS" is calculated for every year during implementation of the URAA.

7 The majority of developing countries (61 out of 71) reported zero AMS. Some of them felt that their policies qualify as Green Box policies (Konandreas and Greenfield, 1996, p. 437).

8 When purchases are made to build up food security stocks at administered prices above the external reference prices, this difference has to be accounted for in the country's current AMS. However, the difference between the release price and the external difference price is not required to be included in the current AMS.

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Food Security and Agricultural Reform in LDCs

Chapter 3

A. Introduction

The concept of food security has dramatically changed since its first widespread use at the World Food Conference in 1974. This change reflects growing awareness of the complexity of the issue. The 1974 Conference was concerned with the adequacy of global food supplies, and with the risks to them and to stable food prices posed by the threat of a major harvest failure. A parallel concern was the need to secure adequate food supplies at the national level, which was reflected in the food self-sufficiency strategies pursued by many developing countries (DCs). Since then the focus of concern over food security has shifted away from aggregate food supplies at the global and national levels towards the entitlement (i.e. ability to command access to food) of all individuals or households to food.

"Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life."

World Food Summit: 1996 Plan of Action, para.1.

The shift in perceptions about food security was motivated by the growing realization that severe and widespread hunger, and even famines, could take place even though national or global food supplies were theoretically sufficient to provide adequate nutrition for all. The quantities of food produced in the world, or in any particular country, mattered less than whether poor people had the means to access this food (e.g. enough money to buy it). An important influence on this shift in perceptions was the seminal work by Sen (1981) on the causes of famines. Sen demonstrated that famines in countries such as Bangladesh and Ethiopia and in the Sahel in the mid-1970s had not been caused by any significant fall in national food production: they had been confined to specific groups within these societies whose entitlements to food had been destroyed (for example, by the drought which killed the cattle of nomadic herders in Ethiopia, and triggered a collapse in the price of cattle relative to staple food grains).

Food security is now perceived as being principally a problem of access (entitlements) to food by individuals (Maxwell, 1996, p. 157). However, especially in LDCs, food production has an important impact on food security because most of those people who are food-insecure live in rural areas, earn a substantial share of their income from agriculture, and obtain some of their nutritional requirements directly from their own food production (FAO, 1996c, p. 3).

Concerns over food security have developed as a response to the fact that widespread hunger, and even famines, have occurred even though food supplies were theoretically adequate.

A further shift in thinking about food security began in the mid-1980s, prompted by the experiences of African famines such as that in Sudan in 1984/85. People suffering from famines prioritize not only short-term access to food, but also preservation of their assets and future livelihoods. Hence food security is subsumed into broader concerns about the sustainability of livelihoods and their resilience with regard to shocks (Maxwell, 1996, pp. 157-158).

Food insecurity is manifested in two distinct forms: chronic and transitory (World Bank, 1986, p. 1). The first, and more prevalent, form is the widespread and chronic malnutrition which afflicts a substantial proportion of poor people

in DCs. The FAO estimates that 841 million people in DCs (20 per cent of their total population) are food energy deficient and that 230 million children are underweight (FAO, 1996e, pp. 5-6). Transitory food insecurity involves a temporary decline in households' or individuals' access to food. Famine is the most extreme example of this, in which the decline in access to food is so severe as to be life-threatening. The incidence of famines in DCs has decreased since the 1970s, and is now mainly confined to areas afflicted by wars and internal conflicts (FAO, 1996e, p. 8). Several LDCs have been hit by famine in recent years, including Sudan and Somalia.

The FAO argues that the essence of food security is that "all people at all times have access to safe and nutritious food to maintain a healthy and active life" (FAO, 1996d, p. 2). This definition incorporates three elements of food security: availability of food supplies, access to food by households and individuals, and intertemporal stability of food supplies.

B. Measures of food security

The most widely available and used variable for estimating food security is the daily per capita food supply, or dietary energy supply (DES), measured as calories per day. The DES is a national average figure: estimates are available of average per capita DES for most countries of the world. Unfortunately, DES data are computed from national food production and trade statistics, the reliability of which in many LDCs is doubtful (Bernstein, 1990).

The minimum DES needed to sustain moderate activity is estimated to be between 2,000 and 2,310 calories per day per person.[1] The drawback with using the DES to assess food security is that food consumption is never distributed equally in any country. To counter this problem, the DES is adjusted upwards on the basis of the fact that a higher average DES is necessary in order to enable the people at the bottom of the food supply distribution chain to meet their minimum DES requirement. An upward adjustment of 28 per cent is needed to ensure that almost everyone consumes the minimum required DES on the assumption that inequality in food consumption is moderate.[2] This raises the minimum national average DES to between 2,600 and 2,950 calories per day (FAO, 1996b, pp. 4-5).

A measure aimed at directly capturing the extent and magnitude of food deficiency is the Food Inadequacy Index (FII), developed by the FAO (FAO, 1996c, p. 5). The FII incorporates estimates of the proportion of the population that is undernourished together with the gap between the average daily calorie supplies of the undernourished and the minimum daily calorie requirement. Both the DES and FII utilize energy supply data, although these may not fully capture the adequacy of nutritional intake, which depends on the quality of the diet – for example, how much protein, how many vitamins, etc. are consumed – as well as on the quantity of calories.

A further drawback with the use of both the DES and the FII to estimate food security is that they do not capture the vulnerability of people to food deficiency. These indices are estimates of actual food adequacy or deficiency, but not of food security as such, since food security entails the risk of food deficiency as well as actual deficiency. A more sophisticated measure of food security is the Aggregate Household Food Security Index (AHFSI), also developed by the FAO (FAO, 1996c, pp. 3-4). This takes direct account of inequality in food consump-

tion at the national level and in addition incorporates a measure of the variability of food supplies.

C. Food deficiency and security in LDCs

DES data are available for most of the LDCs. Table 9 provides estimates of average daily calorie supplies in 1984/85 and 1993/94 for 42 LDCs for which data are available.[3] As noted above, given a moderate degree of inequality in food consumption, average daily per capita supplies of 2,600 to 2,950 calories are required in order to ensure that almost all the population has access to adequate nutrition. Only four of the LDCs in table 9 (Cape Verde, Kiribati, Myanmar and Vanuatu) attained even the lower bound of this range in 1993/94, of which only Cape Verde exceeded the upper bound. Two more LDCs – Mauritania and Guinea-Bissau – were close to reaching the lower bound.

In only a handful of LDCs are daily calorie supplies anywhere near high enough to ensure that all of the population is adequately fed.

In contrast, 23 of the 42 LDCs in table 9 had very low per capita food supplies in 1993/94 – below 2,100 calories per day. Ten of these countries had daily per capita food supplies of under 1,800 calories. There is a close correlation between the LDCs with severe food deficiency and those afflicted by internal conflicts: of the 10 LDCs with per capita food supplies of under 1,800 calories per day, only the Comoros has not suffered a major internal conflict in recent years.

The availability of food supplies in LDCs worsened between the mid-1980s and the mid-1990s, although the decline averaged across all LDCs was small. Fifteen LDCs had falls of more than 100 calories in their daily per capita food supplies between 1984/85 and 1993/94. All except one of these countries (the Gambia) had daily per capita food supplies of less than 2,100 calories in 1993/94. Only 11 of the 42 LDCs achieved an improvement of more than 100 calories per day between 1984/85 and 1993/94. The most notable achievement was that of Burkina Faso, which increased its daily per capita food supply from a very low level of 1,734 calories in 1984/85 to 2,451 calories in 1993/94 (see box 7).

The data in table 9 indicate that food supplies in most LDCs are grossly inadequate to ensure that their populations have access to their minimum nutritional requirements, but they tell us little about either the extent of food deficiency in their populations (i.e. the proportion of the population that is undernourished, and the degree to which they are undernourished) or the vulnerability of the population to food deficiency. The FAO estimates that chronic undernutrition in sub-Saharan Africa (SSA) affected 43 per cent of the population in 1990-1992 (the threshold below which people were defined as chronically undernourished was set at 1,800 calories per day) (FAO, 1996b, p. 9). Daily calorie supplies for the African LDCs are on average very close to the overall SSA average,[4] and it is therefore likely that the levels of chronic undernutrition in the African LDCs are similar to those in the region as a whole, i.e. around 40-45 per cent of their populations.

The FAO estimates that 841 million people in DCs (20 per cent of their total population) are food energy deficient and that 230 million children are underweight.

D. Policies to improve food security

There are two major causes of food insecurity in LDCs. The first is widespread poverty: people earn insufficient income to command access to their minimum nutritional requirements. Moreover, because incomes are so low, people are unable to accumulate savings and are therefore much more vulner-

Only 4 of the LDCs achieved a minimum average daily calorie intake. In contrast, 23 of the 42 LDCs in table 9 had very low per capita food supplies in 1993/94 – below 2,100 calories per day.

TABLE 9: NUTRITION LEVELS IN LDCS
(Calories per capita per day)

Country	Mean 1984/85	Mean 1993/94	Difference
Afghanistan	2 069	1 682	-387
Angola	1 970	1 715	-255
Bangladesh	1 992	1 982	-10
Benin	2 090	2 329	239
Burkina Faso	1 734	2 451	717
Burundi	1 919	1 755	-164
Cambodia	1 727	1 786	59
Cape Verde	2 898	3 044	146
Central African Republic	1 955	1 972	17
Chad	1 502	1 844	342
Comoros	1 732	1 732	0
Dem. Rep. of the Congo	2 086	1 999	-87
Djibouti	1 881	1 922	41
Gambia	2 351	2 223	-128
Guinea	2 252	2 363	111
Guinea-Bissau	2 325	2 552	227
Haiti	2 020	1 717	-303
Kiribati	2 495	2 645	150
Lao People's Democratic Republic	2 170	2 108	-62
Lesotho	2 253	2 186	-67
Liberia	2 452	1 700	-752
Madagascar	2 389	2 046	-343
Malawi	2 113	1 941	-172
Maldives	2 216	2 392	176
Mali	1 909	1 990	81
Mauritania	2 408	2 572	164
Mozambique	1 852	1 696	-156
Myanmar	2 651	2 641	-10
Nepal	2 000	2 139	139
Niger	2 104	2 150	46
Rwanda	2 215	1 787	-428
Sao Tome and Principe	2 098	2 139	41
Sierra Leone	1 940	1 864	-76
Solomon Islands	2 229	2 013	-216
Somalia	1 869	1 545	-324
Sudan	2 108	2 308	200
United Republic of Tanzania	2 301	2 040	-261
Togo	2 189	2 052	-137
Uganda	2 090	2 165	75
Vanuatu	2 715	2 705	-10
Yemen	2 044	2 121	77
Zambia	2 078	1 962	-116
All developing countries	**2 429**	**2 560**	**131**

Source: FAO time series.

able to shocks which adversely affect their ability to grow or purchase food. Consequently, poverty leads to both chronic food deficiency and transitional food insecurity, including vulnerability to famine. The second cause involves major shocks which severely disrupt people's livelihoods and entitlements to food. Such shocks include drought and, in particular, internal conflicts (see Part Three, section D). Improving food security necessitates alleviating poverty in LDCs, reducing the incidence of adverse shocks which disrupt people's livelihoods, and putting in place mechanisms to mitigate the impact of shocks on entitlements to food.

Agricultural and rural development policies

Poverty reduction in LDCs is dependent upon equitable growth in per capita incomes. Agricultural and rural development are essential for equitable growth, since the majority of the poor live in rural areas and agriculture is the mainstay of their livelihoods. Policies which facilitate poor farmers' increased agricultural productivity and earnings, and enhance off-farm income-generating activities in

Box 7: Improving access to food supplies in Burkina Faso

Burkina Faso has made good progress since the early 1980s in boosting food supplies and improving food security. As noted in the main text, daily per capita food supplies increased by more than 700 calories between 1984/85 and 1993/94 to a level of over 2,450 calories. The FAO's FII fell from slightly more than 30 per cent of national requirements in 1979-1981 to just over 10 per cent in 1990-1992, signalling a reduction in food deficiency. Moreover, the FAO's AHFSI rose, indicating an improvement in food security (FAO, 1996c, p. 7). Nevertheless, chronic malnutrition rates remain high, especially among children and pregnant women.

The main reason for the increase in food supplies and improved food security was the marked acceleration in agricultural growth rates. Annual growth rates of agricultural production rose from 1.2 per cent per annum during 1961-1984 to 4.8 per cent during 1984-1994 (FAO, 1996a). Food production (mainly cereals) expanded rapidly, by 5.2 per cent per annum during the 1980s and by a further 5.7 per cent per annum during 1990-1994 (UNCTAD, 1996, A-8). There was also strong growth in cotton production for export. Given that agriculture is the main occupation of 86 per cent of Burkina Faso's workforce, the strong performance of the agricultural sector had a widespread impact on incomes and therefore on the ability of people to command access to food.

Agricultural growth was achieved despite severe constraints on agricultural development, including the limited and very irregular rainfall, environmental degradation, lack of irrigation, farm equipment and traction animals, low levels of fertilizer use, the fragmentation of plots and very high adult illiteracy rates (FAO, 1996a, pp. 110-114).

From 1983 the government pursued a strategy of agricultural and rural development aimed at promoting food self-sufficiency, increasing rural incomes and protecting and restoring natural resources. Public investment increased more than fourfold as a percentage of GDP between 1980-1983 and 1988-1991, with agriculture given priority in budgetary allocations (Sedogo and Michelsen, 1995, p. 56). More than 42 per cent of the development budgets of the 1980s was allocated to agriculture and investment in the rural areas (FAO, 1996a, p. 116), while social expenditures in the latter received an increased share of government current expenditures.

Agricultural development policies incorporated a participatory grass-roots approach, with local communities encouraged to contribute labour and funds to public investment projects (Sedogo and Michelsen, 1995, pp. 55-56). Investment in the rural areas included the construction of small- and medium-scale reservoirs for irrigation and soil conservation, and measures such as the construction of stone dykes to reduce water run-off, which facilitated an increase in yields on degraded lands (FAO, 1996a, p. 116; FAO, 1996c, pp. 6-9).

Agricultural research and extension services were reformed to make them better suited to the needs of small farmers, and this contributed to the adoption of improved farm technologies. An increase in the internal terms of trade for agriculture, brought about by reductions in taxes on export crops and marketing margins, boosted price incentives for farmers. Guaranteed marketing arrangements for cash and food crops were strengthened. A public marketing monopoly provided guaranteed prices for cereals and maintained a food security reserve. Subsidies for inputs such as fertilizer were removed, but this did not prevent an increase in fertilizer use, particularly with regard to food crops (Sedogo and Michelsen, 1995, pp. 56-59).

Output was also boosted by migration from the overpopulated and degraded farming areas of the central plateau to the more fertile Volta River basins, which was made possible by the control of onchocerciasis (river blindness) in those areas (FAO, 1996a, 1996c).

Since 1991 agricultural policy reforms have been implemented. The Government has reduced public expenditures on agriculture because of increasing fiscal deficits and external debt arrears. It has also begun to liberalize agricultural marketing, trade and prices. Burkina Faso was successful in boosting agricultural growth rates in a predominantly peasant farm sector, mainly because it devoted substantial public resources to agricultural investment, research and extension, and provided farmers with strong and stable price incentives through public marketing arrangements. This eventually proved to be fiscally unsustainable. The challenge facing Burkina Faso is to maintain the momentum of equitable agricultural development under a more market-oriented policy regime in which the public sector plays a less prominent role.

the rural areas, will have a positive impact on food security. Boosting the incomes of the poor will increase domestic demand for food, and this will in turn stimulate increased domestic food production and/or higher food imports. If LDCs rely predominantly on higher imports to meet food consumption requirements, it is essential that policy reforms also promote competitive export sectors. Policy reforms necessary for agricultural development are discussed in chapter 6, section B, of this part of the Report.

Structural adjustment

Many of the LDCs are implementing structural adjustment reforms designed to boost agricultural growth and efficiency. It is sometimes argued that structural adjustment undermines food security because of the adverse distributional effects of the package of reforms, incentives to boost export crops at the expense of food crops, reductions in credit supplies and government expenditures on agriculture, and higher and more volatile food prices as a result of exchange rate devaluation and marketing liberalization.

As noted in the introduction to this chapter, food security is determined by entitlements to food, which depend mainly on household or individual incomes and assets, rather than on aggregate food production. Structural adjustment undoubtedly has distributional effects, with some people made worse off and others benefiting. But the overall impact on food security should be positive, provided that the reforms boost aggregate incomes and do not worsen income distribution. The evidence reviewed in Part One of this Report indicates that economic growth rates have accelerated in many of those LDCs which have consistently implemented structural adjustment reforms. There is very little empirical evidence to show that structural adjustment has either worsened or improved income distribution in LDCs, while economic theory does not provide unambiguous indications as to the distributional impacts of the reform programmes (Azam, 1993).

Policies which encourage agricultural exports should not undermine food security, because whether or not people are adequately fed is determined by their entitlements to food, not by aggregate food production.

There is no evidence of generalized real increases in food prices for consumers following the implementation of structural adjustment in Africa. The subsidies, price controls and overvalued exchange rates which prevailed in the pre-adjustment policy regime had become increasingly ineffective in holding down consumer prices because of shortages and rationing in official markets. Most of the poor, especially in rural areas, purchased food in unofficial markets where prices more closely reflected parallel exchange rates and did not benefit from government subsidies (Sahn, 1994).

Expanding export crop production, even if this is achieved at the expense of domestic food production, should not undermine food security because it is entitlements to food rather than food production *per se* that determine whether people have access to their nutritional requirements. Farmers will switch from growing food crops to growing export crops only if the latter are more remunerative than the former, in which case their incomes and entitlements to food will be enhanced.[5] Even if aggregate domestic food production falls, the impact on domestic food markets should be offset because increased export earnings will allow an expansion of food imports, especially if external trade is also liberalized.

Cutbacks in government-directed subsidized credit for farmers are unlikely to have any impact on food security in LDCs, because small farmers were not significant beneficiaries of this type of credit in most LDCs (see chapter V, on rural finance). Food security could be undermined if fiscal restraint leads to re-

duced government expenditures on items which enhance the earnings capacities of the poor, such as rural development expenditures. But while fiscal restraint cannot be avoided, expenditures which enhance food security can be protected, and even increased, if they receive priority in budgetary allocations.

Agricultural marketing liberalization is likely to have a positive long-run impact on agricultural development in LDCs, and on the incomes of poor farmers, by promoting more efficient use of resources. There may be, however, temporary adverse effects on the food security of poor consumers if it leads to greater volatility in food prices, although external trade liberalization should dampen volatility arising from domestic production shocks. Moreover, the incomes of poor farmers in marginal areas may be reduced if implicit subsidies provided by parastatal marketing boards are removed (e.g. those derived from pan-territorial pricing of inputs and outputs). The design of agricultural policy reforms in LDCs should be sensitive to the food security needs of the poorest and most vulnerable sections of the population.

The Uruguay Round Agreements and food security

Given that most LDCs are net food importers, concerns were expressed that multilateral trade liberalization under the auspices of the Uruguay Round Agreements (URA) would raise world food prices, thus undermining the food security of LDCs. These concerns appear to have been exaggerated. The price change attributable to the URA is positive, but modest (see chapter 2, Part Two); and the URA effect on global aggregate production is negligible (Greenfield, de Nigris and Konandreas, 1996). This is because, contrary to expectations at the beginning of negotiations, trade liberalization attained under the Uruguay Round Agreement on Agriculture (URAA) is limited. Only a small proportion (15 per cent, equivalent to about $3.6 billion) of increases in food import bills in developing countries between 1988 and 2000 is attributed to the URA. Of the increase in these bills in 43 low-income food-deficit countries in Africa, only $0.2 billion is accounted for by the URA. The per capita food consumption at the aggregate level is projected to remain the same, as the marginal increase in half of these countries is negated by the marginal decline in the other half (Greenfield, de Nigris and Konandreas, 1996).

Given that most LDCs are net food importers, many people were concerned that the Uruguay Round Agreements would raise world food prices, thus undermining the food security of some LDCs. These concerns appear to have been exaggerated.

The URA is just one of several factors that will influence the level of food production, demand, prices and incomes, and therefore food security, in LDCs. Domestic policies which will have more impact on food production and food stocks in LDCs as well as those that could assist the rural poor and farmers are not proscribed by the URAA. Green Box policies (i.e. those with minimum trade-distorting impact which LDCs are still permitted to use) include provision of input subsidies and general rural infrastructural development which LDCs can use in support of resource-poor farmers and agricultural development in underdeveloped regions (see details in chapter 2, Part Two). Furthermore, subsidized food to meet the food requirements of the rural and urban poor in developing countries is permitted under the Final Act of the URA, and these countries are allowed to operate food stockholding programmes specifically for food security purposes, provided that the criteria for their operation are transparent and objective, and the price differential (i.e. between acquisition price and external reference price) is accounted for in the Aggregate Measurement of Support (GATT, 1994).

The future food security situation in Africa, however, is serious in view of SSA's heavy reliance on food aid to meet its food deficits, and the ambiguities[6] created by the food aid provisions of the Final Act of the URA. SSA was the larg-

est recipient of food aid in 1994, accounting for 36 per cent of total food aid deliveries (Shaw and Singer, 1996, p. 450), and will continue to rely on food aid to meet its food deficits in the foreseeable future because of unfavourable overall balance-of-payments projections (World Bank and World Food Programme, 1991, in Shaw and Singer, 1996, p. 451). Reducing the region's vulnerability to food insecurity will necessitate a reduction in its dependence on food aid supplies. This can be attained through macroeconomic and sectoral policy reforms which increase domestic food production, and/or enhance exports and the ability to finance increased food imports (see previous section).

Protecting the vulnerable from famine

Reducing the incidence and scale of internal conflicts in LDCs will substantially diminish the threat of famine in those countries. Conflict prevention and resolution, and humanitarian interventions in conflict situations, are discussed in Part Three of this Report.

Where adverse shocks to people's livelihoods cannot be avoided, such as when serious droughts occur, appropriate policy interventions are necessary in order to protect the food security of vulnerable people. In non-conflict situations, preventing drought or other shocks from causing famine should not be problematic. An appropriate strategy for famine prevention should incorporate early warning systems, mechanisms to ensure that aggregate food supplies are adequate (such as the maintenance of emergency buffer stocks of food and/or funds for emergency food imports) and that food distribution systems are effective, and the provision of social safety nets to provide famine relief to the vulnerable, for example through transfer payments or emergency job creation schemes (Ravallion, 1996). Public intervention should aim not just to ensure food security but also to protect the productive assets and livelihoods of vulnerable people. Botswana, a drought-prone former LDC, established the Drought Relief Programme (DRP) to counter famine; it involves the maintenance of buffer stocks, publicly funded emergency employment schemes and private sector marketing of food. An important aspect of the DRP is that emergency relief not only enhances food security but also helps farmers to protect their capital assets from erosion by drought, for example through the provision of supplementary food for livestock, agricultural inputs and cash payments to farmers to undertake farm improvements.

An effective regional and international response to the 1991-1992 drought in Southern Africa averted famine.

Southern Africa also provides an example of an effective regional and international response to a severe food supply shock, which prevented famine from occurring. The 1991/92 drought caused a 50 per cent fall in cereal production from normal levels in the Southern African region. Food supply deficiencies were exacerbated because maize stocks in the two main food surplus countries in the region – Zimbabwe and South Africa – had been depleted by drought in the preceding crop season. Consequently, the region faced a huge increase in food import requirements on a scale which most countries could not finance on a commercial basis. The essential elements of the response to the drought were the early recognition and assessment of the scale of the region's food requirements, the establishment by the Southern Africa Development Community (SADC) countries of a regional task force to coordinate procurement and distribution of food imports, and the provision of food aid and other forms of assistance by international donors (FAO, 1996c, pp. 42-46).

Best practice in famine prevention cannot be divorced from many of the issues discussed in Part Three of this Report. The capacity of the State to implement effective policies, a reduction in the incidence and severity of poverty, a

usable communications infrastructure and, above all else, the maintenance of peace and security are essential requirements for ensuring that unavoidable shocks such as droughts have minimal impact on food security.

E. Conclusions

Food security is primarily a problem of access to food by individuals and households, rather than one of food production. There are two major forms of food insecurity: chronic undernutrition, usually linked to poverty, and transitory food insecurity arising from a shock which disrupts people's livelihoods.

Overcoming food insecurity requires equitable income growth to reduce poverty, the reduction of people's vulnerability to exogenous shocks and a reduction of internal conflicts.

The most widely available measure of food security at the national level is the daily per capita energy supply (calories per day). On the basis of this measure, very few LDCs meet even the barest minimum levels of food consumption necessary to ensure that all of their populations have access to adequate nutrition. Daily energy supplies are very low in more than half of the LDCs for which data are available, and in many LDCs access to food has declined since the mid-1980s. Widespread poverty is the main underlying reason for chronic inadequate nutrition: household/individual incomes are too low to enable people to command access to adequate food supplies. Severe food deficiency in LDCs, however, is often associated with internal conflicts.

Equitable income growth is essential for reducing chronic food deficiency in LDCs. As the majority of the poor live in rural areas and depend on agriculture for their livelihoods, policies which promote agricultural and rural development will also enhance food security by raising incomes and reducing poverty. These policies are still permissible for LDCs under the Uruguay Round Agreement, which, it is estimated, could cause a modest increase in the price of food imports for LDCs, although projected effects on the level of food aid (on which several LDCs depend to meet their food requirements) are less certain. Burkina Faso provides an example of an LDC which has made significant progress in improving food security through rural development. LDCs should put in place mechanisms to protect food security in the event of adverse shocks such as droughts; and the productive assets and livelihoods of vulnerable people should also be protected. The most important contribution to removing the spectre of famine in LDCs would be a reduction in the incidence and scale of internal conflicts.

Notes

1 This is an average figure which takes account of the differences in energy requirements of adults and children and differences due to sex, age and other factors.

2 This figure is based on the assumption of a 0.2 standard deviation in the national distribution of individual DES.

3 Taking the mean of two successive years, rather than a single year, serves to smooth out some of the year-to-year fluctuations caused by shocks such as drought.

4 The average daily per capita food supply for the 30 African LDCs listed in table 9 in 1993/94 was 2,068 calories. The figure for all SSA in 1990-1992 was 2,040 calories (FAO, 1996b, p. 7).

5 Empirical evidence suggests that, at the aggregate production level, food and export crops are not substitutes but are actually complementary (Sahn, 1994, p. 293).

6 For example, what constitutes food aid, the steps to be taken to ensure a reliable supply, and how to ensure that food aid goes to the most needy countries and people are all subject to different interpretations (see Shaw and Singer, 1996, p. 449).

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Chapter 4

Agricultural Development and the Environment in LDCs

A. Introduction

Environmental issues have achieved prominence on the agenda of many international development organizations only in the last decade. The Brundtland Report (WCED, 1987) focused the attention of the international community on the links between poverty and environmental degradation, and while many of the arguments in the report have been criticized (most recently by Leach and Mearns, 1996), the central thesis that poverty and environmental degradation are linked has not been seriously challenged. The Brundtland Report galvanized the efforts of many international organizations, and led among other things to the Earth Summit in Rio in 1992, and its lower-key follow-up "Rio + 5" earlier this year.

Whilst acknowledgement of the environmental dimensions of development is heartening, the international community has displayed a certain degree of insensitivity to the environmental problems of the poor. The preoccupation with issues such as urban fuel pollution, whilst certainly important, neglects the more immediate and quite different environmental problems experienced by the majority of the population in LDCs, the most severe environmental problems in many LDCs being linked to the agricultural sector, which employs over two-thirds of the labour force.

This chapter discusses these issues, first by providing an outline of environmental problems in LDCs and their consequences, second by looking at systemic and technical causes of unsustainability, and third by examining potential policy and options for the international community.

B. Environmental problems in LDCs: An overview

The main forms of environmental degradation

Environmental impacts are to be found wherever people interact with the physical world. Unsurprisingly, then, the most severe environmental problems in LDCs are found in rural areas, where the majority of the population lives and works. Of the environmental impacts here, land degradation is the most severe. Land degradation has two components, discussed below: loss of vegetation and soil degradation. The former includes deforestation, overgrazing and loss of biodiversity, while the latter includes water erosion, wind erosion, physical degradation and chemical degradation. These two components can be mutually reinforcing, though the relative importance of each varies depending on agro-climatic conditions, population pressure, and economic and institutional factors in any given location.

The main environmental problem in LDCs, land degradation, has two components – loss of vegetation and soil erosion.

Loss of vegetation

Estimated deforestation rates in various countries are unreliable because of problems of definition, misinterpretation of satellite images and lack of empirical studies. Recent studies, for example, have shown that deforestation rates in the Democratic Republic of the Congo have been overstated[1] through misinterpretation of satellite images (*New Scientist*, 1996). Deforestation rates may also have been overestimated in many cases because the temporary clearing of forest for shifting cultivation, for example, has been included in estimates even when shifting cultivation was practised as a sustainable land-use system (Angelsen, 1995). Recent studies have shown that Mozambique contains four times, and Nigeria twice, as much timber as was earlier estimated by the FAO (*New Scientist*, 1994).

Nevertheless, although the problem of deforestation has been overstated in many cases, there is no doubt that it is a serious environmental problem both at a local and a global level. The local consequences of deforestation include serious erosion of steep slopes, causing floods and drying up of streams and siltation in the lowlands. Furthermore, shortage of fuel wood and building materials is severe in many densely populated areas, as in the highlands of Ethiopia, where the increasing use of animal manure for fuel has exacerbated the decline in soil fertility.

At an international level, there are concerns that deforestation reduces biodiversity and increases the amount of atmospheric CO_2, thus contributing to climate change. Loss of biodiversity is considered a serious problem in many LDCs, not least because of the lost potential revenue (revenue to be derived from the novel application of genetic material). Of the seven "megadiversity" countries (i.e. countries noted for their unique ecological richness) in the world, two (the Democratic Republic of the Congo and Madagascar) are LDCs. This biodiversity is most seriously threatened in Madagascar because of rapid deforestation. Genetic erosion is also occurring in cultivated lands where indigenous crop varieties are replaced by improved varieties which often have a much more narrow genetic basis.

Degradation of vegetation may also result from desertification. Overgrazing was, until recently, thought to be a major cause of desertification[2] of the grazing or range lands which cover large areas of the Sudano-Sahelian belt. Recent studies of the vegetation in arid and semi-arid areas have revealed, however, that the grass vegetation is much more resilient than earlier thought (Leeuw and Reid, 1995). Desertification is largely determined by rainfall, and the impact of livestock is now believed to be much less severe.[3] Similarly, fires cause a much greater loss of grass (78 per cent of total estimated loss in Africa) and woody biomass than does removal by livestock and humans for fuel and the like (Leeuw and Reid, 1995). Savannah fires, a large proportion of which are due to human activities such as shifting cultivation and hunting, also cause the largest emission of CO_2.

Soil degradation

In addition to the degradation of fauna in LDCs, there is a threat to the soil which supports ecosystems, and soil capital depletion is now emerging as the most serious environmental problem in many LDCs. It threatens both agriculture and the environment (Pimentel, 1993). Erosion reduces crop yield by reducing the availability of nutrients, water, soil, organic matter and rooting depth as soils become shallow.

A major determinant of soil degradation is the presence or absence of manure in the soil. If farmers are fuel- or fertilizer-poor, manure will be removed from grazing areas to be burned or placed on cropping land. Thus grazing lands will be exposed to more serious nutrient mining, particularly if stocking rates are high.

Degradation is particularly a problem in densely populated rural economies. Stoorvogel and Smaling (1990) estimated nutrient depletion in 38 sub-Saharan countries, 26 of which are LDCs. Almost all of them had negative nutrient balances (net losses of nitrogen, phosphorus, and potassium, all of which are essential to healthy crops). Burundi, Ethiopia, Lesotho, Malawi and Rwanda were classified as having very high nutrient depletion rates, while Madagascar, Mozambique, Somalia, Uganda and the United Republic of Tanzania had high rates. On the other hand, nutrient depletion rates were considered to be low in Angola, the Central African Republic, Chad, Guinea, Mali, Mauritania and Zambia.

The on-site effects of soil degradation in LDCs are usually the most serious, but there are cases where erosion has serious downstream effects and contributes to water resource degradation, siltation of dams, lakes, and so forth. Sedimentation and more irregular water flows may also reduce agricultural productivity in the lowlands. Water resource degradation, which is more severe in densely populated areas and regions with water scarcity, manifests itself in pollution and salination. Water pollution is common in urban areas, and also in densely populated rural areas. Poor and worsening sanitary conditions contribute to the scarcity or lack of clean water, and the effects of this are particularly severe when there is a scarcity of fuel wood for boiling water. Contaminated water affects the health, working potential and welfare of rural people, and contributes to the vicious spiral of poverty and environmental degradation.

Among the African LDCs, the East African highlands and the arid and semi-arid areas are facing the severest environmental problems. To combat these problems, action is urgently required if sustainable livelihoods are to be re-established.

Consequences of environmental degradation for agricultural and rural development

As most of the population in LDCs live in rural areas and subsist on the natural resource base, rural environmental degradation is likely to lead to increases in rural poverty levels. Stagnation and increasing poverty result in increasing pressures on scarce environmental resources. The short planning horizons or high rates of time preference of the land users may cause more rapid resource degradation and reduce conservation investments further (Holden, Shiferaw and Wik, 1996; Shiferaw and Holden, 1996). With the dominance of traditional agriculture based on minimal levels of purchased inputs, agricultural production is already stagnating (or even declining) in some of the most affected areas. The marginal productivity of labour has declined over time with the persistence of rudimentary technology and falling land productivity. While this has, to some extent, been compensated for by increasing labour input and expansion of the area under crops, shortening of fallow periods, and the like, more sustainable means of intensification are necessary in order to reverse the decline in agricultural production. In dry areas, and in some parts of the highlands with severe population pressure, the share of rural households that are net food buyers is increasing. This leads to increasing food insecurity since traditional domestic buffers against crisis are being diminished. On average, food production per capita in all LDCs has declined at rates of 0.5 per cent and 0.7 per cent for the periods

Since most of the population in LDCs live in rural areas and subsist on the natural resource base, rural environmental degradation is likely to lead to increases in rural poverty levels.

1980-1990 and 1990-1994. In other words, population growth is outstripping the growth in food production (UNCTAD, 1996), and this in turn exacerbates environmental poverty.

Environmental degradation also increases the probability of, and vulnerability to, drought. Droughts have, together with social, political and economic factors, caused famine in the Sahel, Ethiopia and Southern Africa (World Bank, 1996). This in turn has triggered forced migration, of a permanent or temporary character. The number of environmental refugees (i.e. persons who have been forced to abandon their homes as a result of human-induced environmental problems) is estimated at 10 million (Pinstrup-Andersen and Pandya-Lorch, 1994). These refugees will increase competition for resources in the areas to which they move.

C. Principal causes of environmental degradation

Poverty is both an important exacerbating cause, and an effect, of environmental degradation.

There are two broad kinds of cause of rural environmental degradation. The first relates to the context in which farming is carried out, and the second to the nature of the farming techniques themselves. This section examines the systemic causes, before examining those relating to techniques. The systemic causes include (i) policy failures, (ii) market failures,[4] (iii) social and political instability, and (iv) population pressure, or in most cases a combination of these. The discussion below analyses these four principal causes and explores their links to the agricultural sector.

The importance of poverty as an exacerbating cause and effect of environmental degradation is not to be underestimated. Policy failures and social and political instability have contributed to economic stagnation and decline in many LDCs, with concomitant increases in poverty levels, particularly in rural areas. Rapid population growth has exacerbated rural poverty because the poor have been unable to make up for the effects of population growth through intensification (increasing output through increasing inputs per unit of land) or extensification (increasing output through increasing the area of land under cultivation). Poverty in combination with credit constraints leads to low investment in agricultural technology, land conservation and so forth, and sometimes to overuse of scarce resources. Non-sustainable encroachment on marginal lands may thus be the preferred, and only, survival strategy for the poor. Also, poverty may contribute to the breakdown of common property regimes and undermine the advantages of introduction of secure (private) property rights to land.

Systemic causes

Policy failures

National and international policies have caused, or exacerbated, environmental problems in LDCs. These policy failures lead to underpricing of environmental costs, and consequently to negative environmental externalities. These externalities have been increasing with the growing scarcity of natural resources. Policy failures include price distortions through government-controlled prices, and subsidies or taxes which give incorrect price signals, faulty delineation of property rights regimes and other legal structures, government projects which directly cause environmental damage, and weak public institutions. Furthermore, state appropriation of property rights has undermined traditional (often communal) property regimes and has in several cases led to de facto open access and resource degradation. The weakening or elimination of local common

property regimes has taken place in a number of LDCs, including the Democratic Republic of the Congo, Ethiopia, Mauritania, the United Republic of Tanzania and Zambia. Urban bias, in the form of inequitable implicit and explicit taxation of the rural population, has crippled agricultural growth and led to severe rural poverty and environmental degradation.

Market failures

Market failures imply the existence of excessive inefficiencies related to market institutions, which are caused by high externalities. Not all market imperfections, however, represent market failures: some of them may not be practically avoidable. In rural economies with high transaction costs and imperfect information, for example in pastoral economies, non-market institutions may be as efficient as is practically possible (McIntire, 1993).

Often, market and policy failures cause an undervaluation of environmental goods. This leads to negative environmental externalities, such as the overgrazing of open access pasture land.

Externalities may cause environmental resources to be underpriced, or even to be considered free, as happens in situations of open access. The full cost of deforestation or soil degradation is not taken into account by the land user, and open access in pasture land may cause overgrazing because of free-rider problems. Off-site externalities are not taken into consideration by the land user in cases where those exposed to the problem have no property rights or influence, and negotiation costs are prohibitive.

Social and political instability

Social and political instability is an outcome as well as a cause of poverty and environmental degradation, since social capital is often depleted during periods of economic decline. Such instability usually has historical roots which cannot be ignored. Conflicts between classes, ethnic groups, political movements or nation States may end in wars which disrupt public life for long periods (see Part Three of this Report). Social insecurity and forced migration are often outcomes which may lead to serious environmental degradation in and around refugee camps and in new settlement areas. Such rapid population increases may put extreme pressures on the adaptive capacity of local institutions. If migration results in the mixing of ethnic groups with very different traditions as regards land use and property regimes, it may cause a further breakdown of management regimes and lead to open access degradation. During the civil war in Mozambique, for example, the rural population was forced to move to the coast or into neighbouring countries. This led to severe pressures on coastal resources and border areas in Malawi.

Environmental integrity is affected by the lack of social stability. Local institutions may break down in times of crisis, resulting in an upsurge in crime and theft. For example, theft of agricultural output is an increasing problem in Zambia and Madagascar, particularly in peri-urban areas. This instability in turn deters agricultural investment, an important determinant of environmental sustainability.

Population pressure[5]

Rapid population growth and high population density in poor economies lead to increasing poverty and resource scarcity. Increasing poverty in turn may lead to increasing population growth. Children may serve as income-earning assets that provide security in old age (Dasgupta and Mäler, 1994). Religious and cultural norms as well as lack of education, particularly among women, undermine family planning efforts.

Rapid population growth and high population density in poor economies lead to increasing poverty and resource scarcity.

Population pressure[6] leads to increased pressure on extensive and intensive margins as both labour supply and demand increase. If sustainable intensification of resource use is unsustainably executed, environmental degradation will be exacerbated. Traditional rules of inheritance which necessitate the repeated division of land lead to further fragmentation of smallholdings. This results not only in intensification, but also in great inefficiency as resources are wasted through a lack of economy of scale. This has happened in some of the most densely populated areas in Ethiopia, Madagascar and Uganda, though the extent of it is the subject of some controversy (Leach and Mearns, 1996).

A high degree of soil degradation has been recorded in areas where the population density significantly exceeds the carrying capacity, for example in the Ethiopian highlands (Grepperud, 1994; Shiferaw and Holden, 1996). Households with an acute land shortage in these areas were found to be more likely to encroach on conservation structures (introduced through food-for-work programmes) (Shiferaw and Holden, 1996). Moreover, the rates of time preference of the household heads were found to have a significant impact on the probability of removal of conservation structures. Population pressure and poverty-induced high rates of time preference may thus work as a disincentive to conservation when further intensification is impossible.

Having examined the systemic causes of environmental degradation in LDCs, this section now turns to consider the technical causes. Environmental degradation in some LDCs may be partly attributed to agricultural technologies and practices. The most important determinants of environmental impact are (i) the level of use of purchased inputs, (ii) use of open access resources and (iii) expansion of the area of production.

Technical causes

Low versus high external input use

Appropriate technologies for intensification have not been widely diffused, especially in African LDCs, because of under-investment in public goods such as agricultural research, technologies, and social and physical infrastructure (see chapter 6). In a few cases, the use of subsidies and "technology packages" (research, extension and provision of credit) has stimulated high input use for a few commodities, such as maize, wheat and rice. However, these technologies have often not been appropriate for poor farmers on marginal lands in LDCs. Farming systems in large parts of LDCs are therefore typically of the low external input type, which increase output through extensive methods (i.e. cultivating more land). Thus environmental damage has been caused by the shortening of fallow periods and/or cultivation of highly fragile and marginal lands.

In those LDCs where agricultural output has been increased through "intensification" (i.e. productivity increases based on the use of Green Revolution technologies), improper application of chemicals and fertilizers has caused land degradation (e.g. acidification), for example in Bangladesh.

Whether a low external input strategy is a better agricultural practice than a high input strategy in view of their environmental effects is debatable (see, for example, Reardon, 1989; Kesseba, 1989; Holden, 1991; Repetto, 1987). It should be noted, however, that there may be complementary effects of, for example, combining high-yielding varieties and fertilizer and conservation technologies from biological-technical and environmental policy perspectives (Holden and Shanmugaratnam, 1995).

Overuse of open access resources

The breakdown of common property regimes due to policy failures and social and political conflicts, in combination with rapid population growth, has caused increased pressure, particularly on forest resources and grazing lands. This has resulted in the expansion of cropping areas and increased stocking of livestock, most often in highly fragile or marginal lands.

Area expansion of agricultural production

Lele and Stone (1989) documented an outward migration to marginal areas when no more land in high potential areas is available. They termed this "regressive intensification". The major consequences of area expansion of agricultural production are deforestation, loss of biodiversity, encroachment into wildlife parks, reduction of grazing lands for livestock, and soil erosion with on- and off-site effects. Cropping may expand onto lands which are very fragile and incapable of sustaining production even with conservation efforts. This may be the case on steep slopes with shallow soil, as in Haiti. Farming may be possible for only a few years and rehabilitation costs may be prohibitive. From society's point of view, conservation or tree planting would, in many cases, have been better in these types of areas. Expansion of crop production into grazing lands may increase the competition between crops and livestock; for example, in Ethiopia this pressure has made it increasingly difficult for land-scarce farmers to maintain their livestock. This may create conflicts between agriculturists and pastoralists, and have severe consequences for livestock movement and nomadic pasture management.

Sustainability of current agricultural practices

Many of the current agricultural practices in LDCs are not sustainable. These practices are, in several LDCs, in transition from an extensive steady state to more intensive forms. The incentive structures are frequently such that it is more profitable for the farmer to choose the most extensive techniques available. Shifting cultivation may therefore be practised long after the carrying capacity of the system has been exceeded, because it provides higher returns on the most scarce resources (labour and cash) in the short run (Ruthenberg, 1980; Holden, 1991). Intensification usually requires more work per unit of output (Boserup, 1965; Ruthenberg, 1980; Pingali, Bigot and Binswanger, 1987), and thus the tendency to continue with extensive systems long after the carrying capacity of land has been exceeded is typical. This may in certain cases, however, be a temporary phenomenon, continuing for only as long as short-term returns on labour increase. When marginal returns on labour decrease, farmers are most likely to switch to more intensive techniques.

Many of the current agricultural practices in LDCs, such as shifting cultivation, are not sustainable.

Farming systems will vary with agro-ecological conditions, typically involving a shortening of fallow periods and extension of cropping periods, possibly to annual cropping or multi-cropping without fallow if soil fertility is good, and/or access to purchased inputs is good. Furthermore, the degree of market integration, the choice of crops and cropping systems, use of conservation technologies, and use of purchased inputs and their effects on the farming system, are all important in determining the sustainability of particular farming systems. It may be technically feasible to develop sustainable high external input systems for annual crops in the humid lowlands (rain forest areas), but these solutions have not proved to be economically viable in most places. Farming systems based on tree crops, such as cocoa, palm oil and coffee, are more suitable and may represent sustainable alternatives under certain conditions (but see box 8 for problems with tropical forest management). There are also problems related to developing

Box 8: Sustainable forestry: A contradiction in terms?

Much has been made of the potential benefits of sustainable forestry. With appropriate forest management techniques, so the wisdom runs, loggers will have a resource base which remains valuable for years to come. At the same time, these techniques will ensure the environmental integrity and sustainability of the forest concerned. This logic clearly works in artificial forests, for instance in Scandinavia, where harvested pine trees are replaced by two (fast-growing) saplings. In fact, this turns out to be nothing more than economic good sense, and would have happened had there been no concern for environmental issues. Interestingly, this is not a pure example of environmental best practice, for the creation of wide areas of land with only one predominant species (monoculture) reduces biodiversity and thus reduces the ability of ecosystems to withstand exogenous shocks.

In tropical forests, genuine sustainability can prove even more elusive. Logging, as practised in many developing countries, is a simple exercise in economics - the most valuable trees are harvested first. The exact number of species logged will depend on the demand for each variety and on its availability. Logging companies have rarely shown much concern for regeneration of forests, and this is largely due to the economics of the situation. Firms have the choice of either restricting harvests and letting trees gain in value through growth and price increases, or harvesting trees immediately. The outcome of this calculation is determined by prevailing real interest rates, and given both the risks involved and the low potential benefits of delaying harvests (the real price of mahogany, for instance, increases at a rate of only 1 per cent a year), it is not surprising that immediate returns are preferred.

Even if the economics of the situation could, by a series of incentives and regulations, be tilted in favour of longer-term time horizons, there are sometimes ecological reasons for thinking that forest regeneration might not be easily effected. Mahogany seedlings, for instance, grow and prosper only after sizeable natural disturbances. This means that even if areas of forest are cut sparingly, there will be little natural growth to replace harvested trees, human intervention being needed to maintain mahogany indefinitely.

Given the contrary economic incentives, limited local government control and lack of political will, the prognosis for sustainable forestry does not look good. Two potential policy responses are (i) the provision of some sort of non-fungible subsidy to fund regeneration, and (ii) a system of logging restrictions and incentives to set aside areas of intact forest. Unfortunately, these can only ever be second-best solutions, until the emergence of genuine political will to address the problems involved.

Source: Rice, Gullison and Reid, 1997.

high external input systems to profitable levels in the savannah and semi-arid areas, because of limited market access in rural areas.

In semi-arid areas, intensification also involves shortening of fallow periods and extension of cropping periods. Erosion and nutrient depletion are the key problems which render current practices unsustainable under conditions of poor market access and high population pressure. More intensive farming systems are unlikely to be successful in these areas without large investments in irrigation.

D. Policy implications of environmental problems in LDCs

It is generally agreed now that the scale of environmental problems in many LDCs demands specific environmental policies to complement more general policies. Correcting policy failures may be beneficial for efficiency and the environment (*win-win* effects). If past policies also had adverse effects on poverty, a policy shift could even create *win-win-win* effects and contribute to the removal of poverty-environment traps (Heath and Binswanger, 1996). These new policies may, however, be unable to correct the underlying market failures in all cases, and could create severe environmental problems in some cases. For example, if financial markets are underdeveloped, there may be adverse effects on

investment in conservation. Typically, in rural LDC areas, markets are far from perfect. Information is scarce and costly, particularly in remote rural societies which may not be linked with national markets. Policies to deal with environmental degradation, which is often severe in these areas, will have to be adapted to local circumstances.

Policies directed at rural development, increased food production and reducing such environmental problems as land degradation and deforestation also have to consider the behavioural response of farm households, which represent the dominant decision-making units in these rural economies. That is, households have to be the pivot for policy analysis to focus on incentive structures. Why are farm households carrying out activities which cause environmental degradation? How can policy makers create incentives for farm households to behave the way they want them to? In other words, how can negative environmental externalities be internalized?

Group responses at higher levels of organization (e.g. village, watershed, chiefdom, etc.) must also be taken into consideration in devising solutions to environmental problems in LDCs. Collective action at various levels is often necessary for tackling various forms of environmental degradation. The potential importance of this will, nevertheless, vary with agro-ecological, cultural, economic and other institutional conditions.

A list of possible policy measures to counter environmental degradation emerges from the discussion below, but the appropriate mix and sequencing of policies to achieve sustainable management of natural resources will depend on a thorough analysis and assessment of each specific case. At the local level, it is crucial to identify what the local communities may be able to do themselves, what they can do with external assistance and what the government has to do. It should also be noted that changes in general policies (e.g. land tenure, tax, provision of services) will have repercussions for the ability of local communities to deal with environmental problems. Governments must be ready to provide assistance where local communities indicate the need for resources to tackle their environmental problems. This could facilitate harnessing collective action for environmental rehabilitation and conservation. The success of this approach, however, depends on the homogeneity of the communities, the social capital (Serageldin, 1996) and State-community relations.

Policy measures for environmental conservation

Specific policies targeting environmental conservation should as much as possible be integrated into sectoral and macroeconomic policies. It is particularly important to integrate the environmental and agricultural policies, as the most serious environmental problems emanate from agricultural practices. Unfortunately, in many LDCs there is a tendency to develop and implement agricultural and environmental policies in separate ministries. Several LDCs are now in the process of trying to integrate the two areas, but bureaucratic inflexibility and a lack of experience and policy models hamper the process.

Because the most serious environmental problems emanate from agricultural practices, it is essential to integrate agricultural and environmental policies.

A package of policies aimed at overcoming environmental degradation in LDCs may comprise, among others, the ones described below.

Land tenure policies

Changes in policies governing access to land may include delineation and enforcement of property regime rules in order to avoid de facto open access to scarce environmental resources. A change from state property to private and/or

communal property regimes, thus making farmers and communities stakeholders in the integrity of their environment, may go a long way to dealing with the problems discussed above. In a world with significant transaction costs the distribution of resources may also matter for efficiency (Coase, 1960). The fact that small farms are often found to be more efficient than large farms (Hoff, Braverman and Stiglitz, 1993), and the fact that subsistence constraints may force poor households to deplete their resource base, underline the need for a land resource distribution policy. In addition to the land reform policies discussed in chapter 6, protection of the rights to genetic resources is one area where national efforts may be important in protecting the environment.

Legislation for resource use

Legislation may be relevant for protecting the environment, e.g. wildlife and forest reserves, and will be effective only if rigorously and reliably enforced.

"Rural bias"

Given the link between environmental degradation and poverty, rural poverty alleviation can be seen as a highly effective environmental policy. Provision of rural social and physical infrastructure will have a considerable positive impact on the levels of poverty. Improved road and other communication links with cities and markets may help reduce price instability and improve overall rural-urban terms of trade. Radio broadcasting, for example, not only is a cheap and efficient way of reducing information asymmetries and costs, but also will help to promote local mobilization for developmental purposes, including environmental conservation. Increased access to education, in particular for women, will promote family planning, which will help reduce population growth rates. It will also enhance the effectiveness of (educational) programmes for combating environmental degradation, including the use of more environmentally friendly agricultural technologies.

Investment in agricultural research and extension

Agricultural research should focus on producing innovations which integrate productivity-increasing technologies with environmental sustainability.

There is a need to broaden the perspectives of agricultural research. The idea of a "New Real Green Revolution" which not only focuses on increased agricultural productivity in the short run, but also integrates productivity-increasing new technologies with environmental sustainability, may assist in switching to more sustainable development paths. Crops (and animals) which were neglected in the earlier Green Revolution, but which are the mainstay of the poor living on fragile lands, have unexploited genetic potentials in terms of yield, product quality, and resistance to pests and diseases. Developments in biotechnology have increased this potential and made it possible to tap it more quickly and at lower costs. It can substantially improve the productivity of other resources (land and labour), and reduce the need for some purchased inputs such as pesticides and perhaps fertilizer. (See also discussions in chapter 6.)

Development of rural financial markets

Well-functioning rural financial markets may enhance investments in conservation and more productive and environmentally sustainable technologies (see chapter 5, on suggestions for improving the functioning of rural financial markets in LDCs).

Pigouvian taxes and subsidies

Environmental externalities could be reduced or internalized by introducing taxes or subsidies to adjust for discrepancies between private and social marginal costs and benefits. Taxes could be used for negative externalities and subsi-

dies for positive externalities. Whether these instruments would be effective depends on the structure and size of transaction costs and behavioural responses. Fertilizer subsidies could perhaps be defended in cases of severe nutrient depletion. Output taxes equal to user costs could in some cases be defended when imposed on "erosive crops" (i.e. crops whose production results in a degree of soil degradation) if this would lead to the substitution of less "erosive crops". When the "erosive crops" are the most profitable ones, introducing an output tax may be problematic from a poverty perspective, given the already vulnerable situation of many farmers. This might be mitigated by channelling the revenue from taxation to a subsidy for more environmentally benign, though ordinarily less profitable, crops.

One could also argue for subsidies on environmentally benign crops (e.g. tree crops) or production methods: conservation technologies such as tree planting and building of terraces could be stimulated in this way. Short-term returns on these types of investments are typically low, and a discrepancy between private and social rates of discount could be used as an argument for such subsidies if sufficient incentives for their management and maintenance exist at a later stage (i.e. secure property rights). It is, however, doubtful whether LDC governments with acute fiscal constraints would be able to afford these subsidies without external financial assistance.

Cross-compliance and inter-linkage policies

The use of cross-compliance or inter-linkage mechanisms may reduce transaction costs, and improve the targeting of policies and overall efficiency. Such mechanisms include credit and new technology packages, e.g. improved seed and fertilizer (interlinking credit and input markets), and food-for-work programmes (interlinking food and labour markets). They could be used, as temporary or permanent instruments, to promote the adoption of specific technologies, or to reach specific geographical areas and social groups. In the case of temporary use, proper incentive structures should be in place to ensure lasting effects of intervention. The approach is likely to be sustained in the long term if it involves grass-roots participation in monitoring and enforcement mechanisms.

In order to target environmental problems it may be appropriate, for example, to link credit, and improved seed and fertilizer inputs, to conservation investment, or to link food-for-work programmes to conservation investment, tree planting, and so forth. In particular, poor households living on fragile lands could be targeted with such programmes both to rehabilitate degraded lands and to prevent further degradation of land in use. More research is required, however, to test these instruments through pilot projects.

The appropriate mix of command and control (i.e. legislation) and incentive-based instruments is still debated, but it is likely to depend on historical, cultural, agro-ecological, economic, social and institutional circumstances. Economic theory and analysis are important tools in the process of developing better policies for managing natural resources in LDCs. Investment in human capital is essential if policy-making and implementation are to be improved in those countries. This is one area where external assistance may be necessary.

The role of the international community

The international community should be concerned about environmental problems in LDCs for a number of reasons. The environmental consequences of the actions of farmers in those countries can extend across the planet. Deforestation contributes, for example, to climate change. At a regional level, environ-

The international community should be concerned about environmental problems in LDCs, not least because the environmental consequences of the actions of farmers in those countries can extend across the planet.

mental degradation contributes to instability by increasing vulnerability to natural shocks, and through this contributes to the triggering of refugee flows. At a local level, environmental degradation exacerbates the misery and compromises the future of some of the world's poorest people.

The level of commitment to dealing with the environmental problems within the LDCs themselves is important for the potential role of the international community. For example, under some circumstances, a case may be made for the use of international pressure and provision of conditional assistance (a form of cross-compliance). Political instability may give rise to short planning horizons and a large discrepancy between the discount rates of policy makers and the discount rate of society. In other cases, power structures may be such that poverty reduction and environmental conservation are not prioritized. Where the LDC government is committed to dealing with the problems but lacks the human and other resources to develop appropriate institutions and policies, the international community could provide loans and grants for environmental projects, as it has already done in a few cases.[7]

Funding of research tied to international research centres could be part of joint international efforts to generate improved technologies and knowledge to enhance policy formulation within the context of "public goods". The Global Environmental Facility (GEF), coordinated by the World Bank, the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP), was established after the Rio Conference to help countries integrate global environmental concerns into their national development goals. However, only a few LDCs have benefited from GEF funds, which have been primarily directed at biodiversity conservation of threatened species, particularly unique ecosystems, and reduction of greenhouse gas emissions. These projects may be linked, directly or indirectly, to the agricultural sector, but their overall environmental impact has so far been limited.

Coordination among donors is important in order to reduce the burden on national governments, and to improve the consistency and effectiveness of efforts. National Environmental Action Plans and Conservation Strategies could be starting points for these efforts.[8] In addition, urban bias in the funding of environmental projects by international organizations needs to be reversed.[9]

Donors and NGOs could also be involved in projects at the micro and meso levels to assist in local institutional development, and finance conservation efforts and human capital development. Such efforts will, however, need to be adjusted to local needs and priorities, for example through small pilot projects to explore alternative policy instruments.

E. Conclusions

The areas in LDCs where the greatest level of environmental degradation occurs are also those where population pressure, poverty and food insecurity are intense, thus complicating any possible solution.

Frustratingly, the areas in LDCs where the greatest level of environmental degradation occurs are also those where population pressure, poverty and food insecurity are intense, thus complicating any possible solution. Furthermore, any policy package will be largely reliant on external resources, through transfers or training, since most LDCs have neither the expertise nor the financial capacity to tackle by themselves the complex links between environmental and agricultural priorities.

Policy change in the systemic framework, within which agricultural production can increase without leading to widespread environmental damage, should have at least four main elements:

- initiation of dynamic, participatory land-use planning processes that identify and mitigate the risks of natural-resource degradation and other environmental impacts in time;
- carefully formulated social and economic policies to improve the capacity of farmers in the poorer areas to manage efficiently their soil fertility, soil moisture, pest populations and biological diversity through holistic management systems;
- greater investment in human capital and rural infrastructure, including the use of information and communication technology and training of farmers to apply sustainable agriculture techniques;
- continuous assessment, monitoring and evaluation of environmental impacts through information management, decision-support systems, indicators of sustainability and geographical referencing of information.

These elements will provide the basis for a more comprehensive approach to synthesizing environmental and agricultural policy, and enable policy makers finally to tackle effectively problems that affect the vast majority of LDC populations.

Notes

1 The deforestation rate in the Democratic Republic of the Congo, which contains the largest share of primary tropical rain forest among the LDCs, was estimated at 0.2 per cent per annum (WRI, 1990), while the rate during the 1980s was estimated at 0.6 per cent (WRI, 1994).

2 The term "desertification", adopted by a major United Nations programme to combat land degradation, has been defined as the diminution or destruction of the land, leading ultimately to desert-like conditions (Pimentel, 1993). "Land degradation" is currently the preferred more general term, and is fast replacing the more specific "desertification" (see, for example, World Bank, 1996). Mabbutt (1984) concluded that desertification of rainfed croplands was the greatest threat because of the high potential for severe desertification and the large number of people dependent on these areas, estimated by Pimentel (1993) to be about 85 per cent of the rural population of dry land areas.

3 This may lead to reclassification of 8-9 million square kilometres of African range lands from moderate and severely degraded to not degraded or slightly degraded (Leeuw and Reid, 1995). Oldeman (1993) also classifies less than 5 million square kilometres as degraded, and of these, 3.2 million square kilometres as moderately or severely degraded. Moderately degraded land may lose 25 per cent of its productive potential, compared with a loss of at least 50 per cent for severely degraded land.

4 Policy and market failures have also been categorized as "institutional failures" (Papandreou, 1994; Dasgupta and Mäler, 1994).

5 Whether population pressure is a principal cause or just a symptom of other failures is a debated issue (Cleaver and Schreiber, 1994; Heath and Binswanger, 1996) and relates to the contrasting hypotheses by Malthus (1987) and Boserup (1965). Environmental degradation and poverty in LDCs have created a new interest in the understanding of the conditions under which the Boserup hypothesis of intensification and agricultural development holds as a response to population pressure (Scherr et al., 1996).

6 "Population pressure" is a relative concept when used in relation to environmental degradation. What is a relatively high population density in one area may be a relatively low population density in another area with higher agro-ecological potential, better market access, more non-agricultural opportunities, stronger institutional capacity, more favourable policies, and so on. The concept of population pressure should therefore be related to the carrying capacity of land resources, and the latter should in turn be seen as a function of agro-ecological conditions as well as technology, market access, culture, non-agricultural opportunities, institutional structure, terms of trade, policy, etc. (Holden, 1991).

[7] For a full and up-to-date list of Global Environmental Facility activities, see http://www.worldbank.org/html/gef/projects/ themes.htm.

[8] Many LDCs have prepared National Environmental Action Plans or Environmental Conservation Strategy documents that have contributed to increased environmental awareness among their citizens. Several LDCs are also in the process of implementing Environmental Investment Programmes, and attempts are being made to integrate environmental concerns into sectoral policies.

[9] The World Bank, for example, spent 61 per cent of its total lending for the environment up to 1995 on pollution management and urban environment projects (World Bank, 1995). This does not reflect the distribution of the environmental problems of the majority of people in developing countries.

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Chapter 5

Development and Reform of Rural Financial Markets in LDCs

A. Introduction

Poorly developed rural financial markets are one of the major institutional constraints on rural development in LDCs. Although at the policy level rural financing has not been neglected in LDCs, with many different policies and schemes designed to channel credit to farmers and other rural producers having been put in place, the level of success in terms of reaching targeted groups while at the same time ensuring the financial sustainability of these schemes has been low. Because of low rates of loan repayment, many rural financial institutions (RFIs)[1] are insolvent and many special credit schemes have become unsustainable.

This chapter evaluates the experiences of LDCs with different types of institutions and mechanisms for supplying rural credit, the nature of the problems which affect rural financial markets, and the lessons to be learned from successful rural credit schemes in developing countries (DCs). The contention of this chapter is that rural financial markets are afflicted by particularly acute "market failures", that banks and other formal sector financial institutions (FIs) have not proved very successful in rural intermediation, whether they have operated along market lines or according to government direction, and that the future development of rural financial markets in LDCs should include innovative approaches utilizing semi-formal RFIs or NGOs with close links to the rural community. Innovative RFIs and NGOs supplying micro-credit to small farmers and other rural inhabitants have been set up in a number of LDCs and in other DCs, and have achieved impressive results in some, although not all, cases.

Despite extensive policy efforts to enhance rural credit supply in LDCs, rural financial markets remain very poorly developed, with the majority of the rural population, including small farmers, having very limited access to formal sector credit.

This chapter is organized into five sections as follows. Section B discusses why the provision of credit and other financial services to farmers and other rural producers is important for rural development. The market imperfections which afflict rural financial markets and their consequences are analysed in section C. Section D evaluates the various different approaches which LDCs have adopted to enhance rural credit provision. This section also discusses the impact on rural financial markets of the financial sector policy reforms which have been implemented in LDCs during the last few years. Section E discusses the lessons which can be learned from the experience of successful RFIs in several Asian DCs, and section F draws some general policy conclusions for the development of rural financial markets.

B. Why are financial services important in rural areas?

Credit enables farmers to make greater use of modern inputs and to diversify away from subsistence crops to higher-value agricultural activities.

Lack of access to formal sector financial services, and particularly to formal sector credit, is a widespread characteristic of the rural economy in LDCs, especially for small farmers and the rural poor. The larger farmers and the agricultural estate sub-sector generally have better access to formal sector credit, although even their credit needs are not always adequately served (Nwanna, 1995, p. 453).

Informal financial markets are the primary source of credit for the majority of the rural population. Two-thirds of all credit in the rural areas of Bangladesh is supplied by informal financial markets (Montgomery, Bhattacharya and Hulme, 1996, p. 92). Informal financial sector loans are provided by money lenders, traders and marketing agents, as well as by relatives and friends. In some LDCs, cooperative and mutual savings and credit associations (e.g. rotating savings and credit associations) also provide financial services to their members. Because close social links with rural inhabitants enable it to reduce transactions costs and to mitigate the informational problems discussed in the following section, the informal financial sector can offer rural borrowers significant benefits: quick loan disbursement, lack of bureaucratic formalities, flexible repayment schedules and the non-requirement of collateral. But informal sector loans are not always an adequate substitute for formal sector finance: the former are predominantly very small and short-term, and the lending rates charged are often very high (Adams, 1991; Nwanna, 1995, pp. 460-464).

At one time it was almost axiomatic that formal sector credit was essential for agricultural development, a view which shaped the direction of financial sector policies in LDCs from the 1960s onwards. Farmers were thought to be too poor to save and would be unable to purchase modern farm inputs unless provided with loans for this purpose. This view is no longer advanced so strongly, in part because agricultural production was not always adversely affected when lending by some of the formal sector RFIs collapsed because of their financial distress. There is also a greater appreciation of the positive role played by informal financial markets in rural areas (FAO, 1996, p. 13).

Nevertheless, the development of efficient rural financial markets plays a crucial complementary role as regards agricultural and rural development. Financial intermediation is important in rural areas, and the reasons for this are similar to the reasons for its importance in urban areas: savers and investors are not necessarily the same people, and some process of intermediation is therefore necessary if the most profitable investment opportunities are not to be left unexploited because investors lack sufficient finance.

The provision of credit has a crucial role to play in two areas of rural development. First, the application of modern inputs is essential for increasing productivity in agriculture and enabling farmers to diversify away from subsistence food crops, where productivity is low, into higher-value agricultural activities such as poultry or non-traditional exports. But modern inputs are expensive for farmers and entail cost outlays which precede the earning of revenue from the sale of crops. Given the low level of cash incomes and liquid savings in rural areas, some form of credit is required in order to enable farmers to purchase modern inputs.[2] Finance is not the only constraint on the adoption of modern agricultural technology in LDCs, but it is difficult to envisage a green revolution taking place in LDC agriculture unless smallholders' access to credit is substantially im-

proved (Mosley, 1994). The basic requirement for most smallholders is likely to be the provision of seasonal crop loans (i.e. loans extended at the start of the crop season and repaid when crops are harvested and sold), but certain types of agricultural investment, such as tree crops with long gestation periods, will necessitate longer-term, and probably much larger, loans.

Second, credit is needed to finance the fixed and working capital requirements of non-farm, small-scale enterprises such as retailing, crop storage and food processing.

Deposit facilities are also important for rural development. Rural inhabitants save in order to smooth consumption expenditures in the face of unstable incomes, for emergencies such as illness, and for investment. The provision by RFIs of safe, liquid savings instruments which maintain their real value in the face of inflation can provide a stimulus to savings and increase the welfare of savers.

C. Why are rural financial markets poorly developed?

The pervasive problems experienced by rural inhabitants almost everywhere in the developing world in accessing formal sources of rural credit, despite extensive efforts by governments and aid agencies to enhance rural credit supply, suggest that there are inherent problems in rural financial markets which impede their efficient operation and development. The problems of rural financial intermediation are largely attributable to a series of "market imperfections", in some cases made worse by ill-conceived government policies.

All financial markets suffer to some extent from market imperfections arising from uncertainty and informational asymmetries. These problems are particularly severe in rural financial markets.

All financial markets suffer to some extent from market imperfections arising from uncertainty and informational asymmetries. Finance involves intertemporal trade, and those supplying credit cannot know with certainty whether a loan will be repaid, because this involves a future event. In addition, information concerning the probability of loan repayment is asymmetrically distributed. As this information is partly peculiar to the borrower, borrowers are generally better informed about their own capabilities and willingness to repay a loan than are the lenders.

Attempts by lenders to compensate for the default risk involved in lending by charging risk premiums, such as higher interest rates, can lead to adverse selection and moral hazard (or adverse incentive) problems whereby the less risky borrowers are deterred from seeking loans, with a consequent deterioration in the average quality of borrowers and increased risk of default. Adverse selection and incentive problems can lead to a reduction in the volume of credit supplied, with some form of rationing imposed by the suppliers. If informational problems are severe the credit market may fail completely, with whole categories of borrowers regarded as especially risky rationed out of the market (i.e. denied all access to credit), even though individual borrowers within these categories may not be bad credit risks (Stiglitz and Weiss, 1981).

The problems inherent in rural credit markets arise because market imperfections are particularly severe in these markets and because mechanisms for mitigating imperfections are unavailable, ineffective or too costly in the rural environment.

FIs attempt to mitigate informational problems by appraisal of loan applicants and by monitoring of the borrower once the loan is disbursed. However, the transaction costs per value of loan are high in rural areas for two reasons. First, the average loan size is small. Second, because of the distances involved, and poor transport and communications, the close personal contact between the officials of the RFI and the borrower – necessary for effective loan appraisal and monitoring – is expensive, especially in areas where population densities are very low, as in many African LDCs. For similar reasons, the transaction costs of deposit mobilization are also high in the rural areas. Informational problems are further exacerbated because few rural borrowers maintain financial accounts.

The major difference between rural credit markets in DCs and other types of credit market lies in the difficulty in enforcing loan repayment in rural markets.

The major difference between rural credit markets in DCs and other types of credit market lies in the difficulty in enforcing loan repayment in the former (Besley, 1994, pp. 32-34). One of the ways in which lenders attempt to insure themselves against default risk is to demand some form of collateral from the borrower. But in the rural areas of many LDCs suitable forms of collateral (i.e. assets which can be legally appropriated by creditors and marketed) are not widely available. Land, usually the most valuable asset in the rural areas, may not be suitable for collateral. If land distribution is highly unequal, as in parts of Asia, small farmers may have insufficient land (or no land at all if they are tenant farmers) to pledge as collateral. Land which is held communally, as in many parts of Africa, cannot be readily pledged as collateral by individual farmers. Where individual property rights in land exist, they may be too poorly codified for use as collateral.

Banks may also encounter problems in foreclosing on defaulters in rural areas. The courts are sometimes reluctant to allow defaulters' land (or other assets) to be seized, especially if they are subject to social or political pressure not to do so. Rich and politically influential borrowers are sometimes able to avoid repayment of their loans by exerting political pressure on the courts or on bank officials.[3] Even where land can be seized by creditors, it may be very difficult to sell, because of social pressure.

A further problem facing RFIs is that opportunities to adequately diversify their loan portfolios, for prudential reasons, may be very limited. Many of their borrowers are involved in similar production activities (e.g. growing the same crop) and face covariant risks (Besley, 1994, p. 32). Consequently, the RFIs' loan portfolios, and hence their liquidity and solvency, are vulnerable to exogenous shocks, such as bad weather or the collapse of export prices, which have a major impact on their borrowers. The absence, in most LDCs, of insurance markets for the major types of risk facing farmers is another impediment to the provision of rural credit.

D. Policy approaches to the provision of rural finance in LDCs

Government intervention in rural financial markets has yielded poor results, prompting a major shift in the direction of policies.

The problems which farmers face in accessing formal sector credit have long been recognized. Consequently, a variety of policy approaches to tackle this problem have been applied in LDCs over the last two to three decades. Until the late 1980s, the premises underlying rural financing policies were that farmers' demand for formal sector credit existed, that commercial banks would not meet this demand voluntarily (their lending policies being too risk-averse) and that farmers were dependent upon usurious moneylenders. Government intervention was therefore needed in order to improve farmers' access to credit and to

reduce its cost (FAO, 1996, pp. 12-13). Many of the policy initiatives, however, were not very successful. Beneficiaries were limited in number (often limited to the larger farmers), and/or rural credit schemes were financially unsustainable because of very high rates of loan losses. As a result, there has been a shift in policy approaches to rural finance in recent years, with much greater emphasis now placed on the financial sustainability of RFIs, the use of market criteria in allocating and pricing credit, and savings mobilization. Before the recent shift in policy, LDCs' rural financing policies included a number of different components.

Commercial banks

Commercial banks were directed by governments to expand their branch networks in the rural areas in order to improve the rural population's access to banking services. In many LDCs, government-owned commercial banks embarked upon major rural branch expansion programmes. The two government banks in Nepal opened 360 bank branches during the 1970s and 1980s, mostly in the rural areas, and by 1989, 75 per cent of their branches were located in the rural areas (Timilsina, 1992, p. 96; Nissanke and Basu, 1993, p. 20). Many of the rural branches in LDCs were unprofitable: both the volume of deposits mobilized and the number of loans disbursed per branch were far lower than in urban branches, and rapid expansion into rural areas often took place at the expense of staffing quality and internal controls.

In many countries, credit directives, issued by the central banks, stipulated that commercial banks should allocate a minimum percentage of their total loan portfolio to agriculture or related sectors. In addition, the central banks' interest rate controls usually stipulated preferential rates for agricultural lending. These measures had only limited success in boosting credit supply to small farmers: the commercial banks had difficulty in extending credit to this sector for many of the reasons discussed in section C above. Furthermore, they were deterred by the restrictions on lending rates, which impeded their ability to cover the costs of lending. Much of the commercial banks' credit to agriculture was extended to crop marketing boards or to the larger commercial farmers, such as the tobacco estates in Malawi, which in the 1980s accounted for almost 50 per cent of commercial bank lending in that country, rather than to the far more numerous smallholders.

Development finance institutions

Agricultural development finance institutions (DFIs) were set up to provide credit, usually at preferential interest rates, using funds mobilized from government and aid donors. Although the DFIs expanded access to credit in the rural areas, small farmers faced a number of impediments in borrowing from them. The inefficient bureaucracy of the DFIs meant that loan disbursements were often delayed, farmers had to make frequent visits to the DFIs' branches to obtain loans, and loan conditions were sometimes inappropriate (FAO, 1996, p. 12).

Low rates of loan recovery, leading to illiquidity and insolvency, afflicted many agricultural DFIs.

The financial performance of many of the agricultural DFIs was poor, with very low rates of loan recovery, and by the 1980s a large number of them were suffering from both illiquidity and insolvency. Their ability to continue extending new loans was reduced because many of their existing loans were in default and sources of external funds had begun to dry up. Commercial viability was undermined by developmental objectives, poor management, with often very weak credit procedures, and (like many of the government-owned commercial banks) political interference in lending decisions. Arrears affected a large share of the

loan portfolio of the Agricultural Development Bank of Nepal (ADBN) as a result of weak lending procedures and pressure to extend loans to politically influential clients, especially large farmers, and not to pursue recovery of these loans when they became overdue. Agricultural DFIs in a number of LDCs, such as the Gambia, were liquidated because of their acute financial problems.

Cooperative banks were established in several LDCs, including the United Republic of Tanzania, Uganda and Zambia, usually as joint ventures between cooperative societies and public sector institutions. They undertook a mixture of commercial and development banking functions, lending to cooperatives and sometimes to individuals. But lending to their own shareholders (the cooperatives) undermined prudent credit policies and loan recovery rates were very low. Only 29 per cent of the seasonal crop loans of the Tanzanian Cooperative and Rural Development Bank (CRDB) were recovered in the second half of the 1980s (Bagachwa, 1994, p. 39). Both the CRDB and the Ugandan Cooperative Bank were insolvent in the mid-1990s and undergoing major programmes of financial and managerial restructuring in an effort to restore them to viability, while the Zambian Cooperative Bank was closed in late 1995 by its own management.

Special lending schemes

Larger farmers often monopolized access to loans from subsidized special lending schemes.

The third strand of policy in respect of rural finance involved the use of special lending schemes aimed at small farmers or other priority groups. Finance provided by government or donors was channelled to farmers, often at preferential interest rates, through commercial banks or DFIs, or in some cases through semi-formal RFIs, agricultural extension services or NGOs. In LDCs such as Nepal, government credit guarantees have been provided for loans extended by banks or DFIs to certain categories of farmers, or small businesses in the rural areas, in an effort to encourage these FIs to extend more credit to the priority sectors by insuring some of the default risk. Some schemes have combined credit supply with the provision of other types of farm inputs, such as fertilizer and extension services.

The success of special lending schemes has been limited. A series of special rural lending schemes, administered by the Uganda Commercial Bank (UCB) and the Ugandan Cooperative Bank, were undertaken from the mid-1960s to the early 1990s. Political interference in credit allocation and recovery, together with the disruption caused by civil war and the perception among the loan recipients that the loans were actually grants from government, contributed to the low recovery rates of these schemes, and the financial distress of the banks involved in administering them (Nsereko, 1995, p. 28). The Special Agricultural Credit Programme (SCAP) in Bangladesh, which involved low-interest-rate lending to farmers by public sector commercial banks and DFIs, was also largely unsuccessful. Loan defaults were high, encouraged by a succession of debt forgiveness measures. Much of the credit went to larger farmers (who should have been ineligible to receive loans under the scheme) and only 30 per cent of crop loans were repaid within a year of disbursement. This was one of several special credit schemes in Bangladesh. A World Bank study of such schemes in 1990 concluded that they did not contribute to an increase in the asset base or the productivity of small farmers (Chowdhury and Garcia, 1993, pp. 7-12; Kibria, 1995a, pp. 17-18).

Malawi had more success with a series of schemes run by the Ministry of Agriculture's Smallholder Agricultural Credit Association (SACA), using donor funds.[4] Credit was extended on a group basis to farmers' clubs, which shared re-

sponsibility for loan repayment at the end of the agricultural season. Credit discipline was relatively easy to enforce because a parastatal marketing board, ADMARC, had both a monopoly on input supply and a monopsony on the purchase of farmers' maize produce. The scheme reached a large number of smallholders (285,000 farm families in the late 1980s) and achieved high rates of loan repayment for about 20 years. But loan repayment rates collapsed in 1991/92 and 1992/93, partly because of drought, partly because ADMARC's monopoly on agricultural marketing was relaxed, and partly because the introduction of multi-party politics weakened credit discipline, which depended upon tight control by officials of the ruling party (Buckley, 1996; Chirwa, 1994).

Financial sector policy reforms

Fundamental changes in policy regarding rural financing have taken place in many LDCs in recent years. The general thrust of recent policy reforms is to remove direct government controls over credit allocation and interest rates, and instead focus on the institutional reforms needed to create financially sustainable RFIs. The changes are part of broader policy reforms in the financial sectors of LDCs entailing financial liberalization and institutional strengthening (discussed in UNCTAD, 1996),[5] and which themselves have had a significant impact on rural financial markets.

The consequence of recent changes has been a partial withdrawal of formal sector banking services from rural areas: there are fewer rural bank branches, and banks are under less compulsion to extend credit for agriculture.

Although differing in detail from one LDC to another, financial sector reforms have a number of common elements. First, governments have removed most of the allocative credit directives, such as the minimum percentage of loans to be allocated to agriculture, interest rate controls (including preferential lending rates for agriculture) and the requirement that banks open rural branches.[6] In some LDCs, nominal, and often real, interest rates have risen sharply, and farmers have therefore to pay much higher borrowing costs for formal sector credit. Very high interest rates have caused acute problems for farmers in some countries, especially when their revenues have been hit by drought, as happened in Zambia in the 1990s. The ability to charge more commercially realistic lending rates has, however, been of major benefit to the financial sustainability of some of the innovative semi-formal RFIs which have been set up to serve small farmers and the rural poor (Hulme and Mosley, 1996, p. 204).

Second, financially distressed public sector banks, DFIs and cooperative banks have been restructured, are in the process of restructuring or, in a few cases, have been liquidated. Most of the restructured FIs are expected to operate according to commercial principles. Although some elements of subsidized lending remain, largely in special lending schemes, the public sector FIs now place more emphasis on commercial evaluation of loan applications, on loan recovery and on charging lending rates which cover their costs. Restructuring has often entailed the retrenchment of unprofitable rural branch networks. In Uganda, the UCB closed more than 100 branches in 1995/96, mostly in the rural areas. While financial liberalization has stimulated some new entry by private sector banks in LDCs, the majority of these have not established branches in the rural areas, but instead focus predominantly on serving urban banking markets (Brownbridge 1996b, 1996c; Gayi, 1996b).

The consequence of these changes has been a partial withdrawal of formal sector banking services from rural areas: there are fewer rural bank branches and banks are under less compulsion to extend credit for agriculture. To some extent, this may make little difference to the majority of rural inhabitants, given that the services provided in the rural areas by the banks and DFIs were often of very poor quality and that small farmers had very limited access to credit from these FIs.

Innovative RFIs and group lending

As an alternative to the banks and DFIs, innovative RFIs, which utilize social links with the rural population, have been established in several DCs with donor support. These provide micro-credit (i.e. very small loans), often together with savings facilities, to small farmers and the rural poor. Most of the innovative RFIs in DCs are not profit-driven private sector companies, but either NGOs (private sector non-profit organizations) or public sector organizations. Many of the RFIs have been inspired by the success of the Grameen Bank in Bangladesh, and utilize group lending schemes to facilitate the allocation and recovery of credit (Hulme and Mosley, 1996).

Group lending offers two potential advantages over lending to individuals. First, administrative costs are lower because larger loans can be channelled to a group instead of several smaller loans to individuals. Second, joint liability for loans improves incentives for loan repayment and the screening of group members. But lending groups have not been unambiguously successful: their design and operating modalities are important factors determining crucial aspects of their performance, such as loan repayment rates (Huppi and Feder, 1989). Some of the innovative RFIs which use group lending have reached a large target population and achieved impressive loan recovery rates, but administrative costs tend to be high, and as a consequence most still rely on donor funds to support their operations.

Since 1992, five regional rural development banks have been set up in Nepal to provide small, mainly unsecured loans to the rural poor through borrower groups. Two more group lending schemes have been established in Bangladesh based on the Grameen Bank model (Montgomery, Bhattacharya and Hulme, 1996). The Malawi Mudzi Fund, which also uses the Grameen Bank model, was set up in 1989 to provide credit to the rural poor (Buckley, 1996). Pilot projects based on group lending were established in Burkina Faso and Guinea in the late 1980s (Nowak, 1992).

E. Lessons from successful rural financial institutions in developing countries

The measure of the success of an RFI is the extent to which it has been able to service many within the target group, and whether its operations have been financially sustainable.

The success of RFIs serving smallholders and the rural poor has been defined in terms of two objectives: first, whether the RFI has been able to service many within the target group; and second, whether the operations of the RFI have been financially sustainable, i.e. whether they have been able to cover costs and continue to extend finance to the target group without the need for ongoing subsidies from government or other external agencies (Yaron, 1994, p. 49). Examples of successful RFIs in the DCs include the Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand, two Indonesian RFIs – the Badan Kredit Kecamatan (BKK) and the Bank Rakyat Indonesia Unit Desai (BUD) – and the Grameen Bank in Bangladesh. The latter's performance is particularly noteworthy because it has concentrated on serving the credit needs of very large numbers of the poorest section of the rural population who have no collateral, mainly poor rural women.

There are significant differences in the orientation and operational methods of successful RFIs, but certain common characteristics can be identified which are crucial for their success. They have extended their operations beyond the disbursement of loans to include deposit mobilization, thereby reducing dependence on external sources of funds. They have attained high repayment

rates for their loans, avoiding the major cause of financial distress among RFIs, and have charged lending rates sufficiently high to cover at least a large part of their costs. Most have administratively intensive organizational structures, with large numbers of field staff, and employ mobile banking techniques (i.e. RFI officers travel to the clients' villages rather than clients visiting RFI branches). This facilitates both intensive loan supervision and deposit mobilization, but it substantially increases administrative costs. Decentralized decision-making processes have been a feature of successful RFIs. In addition they have integrated some form of insurance fund, based on compulsory deposits by borrowers, into their lending operations (Hulme and Mosley, 1996).

Financial sustainability depends upon achieving a high rate of loan repayment. The four RFIs listed above employ social mechanisms to aid loan evaluation and reinforce incentives for loan repayment. The Grameen Bank and the BAAC use group lending, whereby small self-selected groups of people who know one another well apply for credit and are jointly responsible for ensuring that the loans of each individual member are serviced. If loans are not serviced, the whole group suffers penalties, such as having further access to credit curtailed. Hence peer pressure provides the incentive for loan repayment, while the self-selection of groups enables the screening of loan applicants to be undertaken by the people (the other group members) who are likely to be in the best position to judge whether the applicant is capable of repaying credit, and willing to do so.

Intensive loan supervision, mobile banking techniques and decentralized decision-making processes have been a feature of successful RFIs. In addition, they have integrated some form of insurance fund, based on compulsory deposits by borrowers, into their lending operations.

Besides the use of social mechanisms, the four Asian RFIs employ a variety of other methods to enhance loan repayment. Most loans are short-term and entail frequent regular repayments; this facilitates monitoring of borrowers by the officials of the RFIs. Access to further credit depends upon prompt repayment of existing loans. Incentives for borrowers to repay loans on time are further strengthened by interest rate rebates for prompt repayment (in the case of the two Indonesian RFIs) and penalties for late payment (in the case of the BAAC). The Grameen Bank and the BKK also impose obligatory deposit requirements on borrowers, thus reinforcing incentives for repayment (Yaron, 1994, pp. 53-56).

The transaction costs of servicing small-scale borrowers in rural areas are high. RFIs must cover these and other costs (such as the cost of mobilizing deposits) if they are to be financially viable, which means that interest rates are usually high, even when subsidies are provided to the RFIs. Positive real lending rates, and substantial spreads between deposit and lending rates, are a feature of all four of the successful RFIs mentioned above.

F. Conclusions

Despite extensive policy efforts to enhance rural credit supply in LDCs, rural financial markets remain very poorly developed, with the majority of the rural population, including small farmers, having very limited access to formal sector credit. Government direction of credit at subsidized interest rates failed to promote rural development: much of the credit disbursed was channelled to the larger farmers or richer sections of the rural population, and repayment rates were very low. As a consequence, policy reforms have been implemented in many LDCs which entail financial liberalization, the restructuring of financially distressed RFIs (which has often involved the retrenchment of their operations in rural areas) and attempts to establish innovative RFIs to serve the needs of small farmers and the rural poor. Although conditions in LDCs differ, it is possible to

identify policy conclusions which are likely to have general relevance for the development of rural financial markets in these countries.

Policy should emphasize the institutional building of financially sustainable RFIs rather than attempts to directly control resource allocation in financial markets. Institution building includes designing appropriate mechanisms for delivering financial services to the rural poor and smallholders, adequate incentives for managers and staff, training of staff, safeguards against abuse by insiders, as well as the legal and regulatory framework governing rural financial markets. RFIs should be allowed to allocate and price rural credit according to commercial criteria: this should at least reduce the levels of loan losses and ensure that credit is allocated more efficiently.

Extending credit at below market interest rates should be avoided. It will jeopardize the prospects for creating financially self-sustainable RFIs and encourages a culture of poor credit discipline, with borrowers perceiving cheap loans as grants. Moreover, most of the benefits of cheap credit will be usurped by the larger farmers using their political and social connections. The disadvantages of subsidized lending rates for rural borrowers generally outweigh any benefits, because subsidizing interest rates usually entails reducing availability of credit, and access to credit is more important for the rural poor than its cost (Yaron, 1994, p. 59).

Government and donors should support the development of innovative RFIs to serve the rural poor. Many of these RFIs will need some form of subsidy and technical assistance at the outset.

Government and donors should support the development of innovative RFIs capable of serving the rural poor. These are likely to require significant levels of subsidy and probably technical assistance, especially in the early stages of their operation, when their costs will be very high because of staff training, high rates of default due to lack of knowledge about borrowers and inexperience of staff, and high outreach costs. Costs should decrease over time as the RFI gains both experience and more detailed knowledge of its client base, and as the number of borrowers and average loan size increase. But in the initial period costs may be far too high to be covered through charges on borrowers, hence the need for some form of subsidy (Hulme and Mosley, 1996). Efforts should be made to assist the development of existing informal and semi-formal FIs, such as savings and loans companies and credit unions (Aryeetey, 1997; Nwanna, 1995).

Designing effective systems for credit evaluation, monitoring and recovery is a crucial requirement for building financially sustainable RFIs. For the poorest borrowers without suitable collateral, group lending schemes may be the best mechanism for ensuring high rates of loan repayment. Effective credit procedures, i.e. careful evaluation of loan applicants, proper record-keeping, close monitoring of borrowers and enforcement of repayment schedules are essential. Intensive (i.e. frequent) loan collection, incentives for repayment (such as tying access to future loans to the prompt repayment of existing loans) and some form of savings and insurance facilities are all correlated with high loan repayment rates in successful RFIs in DCs (Hulme and Mosley, 1996, pp. 54-55). Loans should not be forgiven by government-sponsored or government-owned RFIs, as they have been in some LDCs: this merely encourages borrowers to default.

RFIs should take deposits and offer other financial services, as well as making loans. The availability of safe, remunerative and liquid financial instruments may be just as important for the welfare of rural inhabitants as the provision of loans. Moreover, there are strong complementarities between these functions, while mobilizing deposits enhances the financial sustainability of RFIs.

The prevailing social, economic and geographical conditions in most LDCs make the development of efficient rural financial markets difficult. But with appropriate policy measures, carefully designed to meet local conditions, the access of small farmers and the rural poor to financial services can be improved.

Notes

1 The term "RFIs" is used to denote all financial institutions which operate in rural areas, including those, such as commercial banks, which also operate in urban areas.

2 In Malawi, the cost per hectare of the recommended technical package of inputs for modern varieties of maize amounted to $68 in 1991. This was 71 per cent of the average annual rural family income of $96. (Mosley, 1994, p. 253).

3 This has been the case in Nepal, where some large farmers have failed to repay loans to the Nepal Agricultural Development Bank and used their political influence to avoid being taken to court.

4 SACA was established in 1987, taking over the farmers' club credit system that had been operating under various projects since the early 1970s. SACA has now been replaced by the Malawi Rural Finance Company (Buckley, 1996, pp. 341-342, 354).

5 See also Brownbridge (1996a, 1996b, 1996c), Kibria (1995a, 1995b) and Gayi (1996a, 1996b) for country studies of financial sector reforms in Bangladesh, the Lao People's Democratic Republic, Malawi, Nepal, Uganda, the United Republic of Tanzania and Zambia.

6 An exception to the liberalization of credit directives is Nepal, which has retained a requirement that commercial banks allocate a minimum of 12 per cent of their loan portfolios to "priority sectors", mainly smallholders and small businesses. Banks which fail to meet this target instead lend the funds to the Agricultural Development Bank of Nepal for on-lending to priority sectors.

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Chapter 6

Policy Reforms and Agricultural Development in LDCs

Lessons from Successful Agricultural Development Strategies in Developing Countries

A. Introduction

Beginning in about the early 1980s, a large number of developing countries embarked on economic reform programmes in response to low and, in many cases, negative rates of economic growth, and unsustainable external and internal economic imbalances. Generically referred to as structural adjustment programmes (SAPs), the reforms have been associated with the International Monetary Fund (IMF) and the World Bank. The latter in particular has been pivotal in the design and implementation, and funding, of SAPs through conditional lending. Although reform components and timing vary significantly between countries, a common feature is a reorientation of policy towards greater reliance on market forces for allocation of resources.

This chapter first reviews the nature and extent of policy reforms in LDCs, and the impact of reforms on the agricultural sector. It then examines the "Green Revolution" which swept through several developing countries in Asia and Latin America during the 1960s and 1970s: do the experiences of these countries offer any lessons for LDCs? An overview of policy reforms impacting on agriculture in LDCs is presented in the next section. This is followed, in section C, by an analysis of the impact of reforms on the agricultural sector in LDCs and by a discussion of a number of constraints faced in the adjustment process. Section D discusses the factors that contributed to the growth of agriculture in relatively successful developing countries, while section E makes some suggestions for future policy based on these factors. The final section contains conclusions.

B. Agricultural policy reforms

LDCs have in general been late reformers. While many Latin American and Asian countries embarked on economic reforms in the 1970s, most LDCs started their reforms in the mid to late 1980s. Several have embarked on reforms only in the 1990s, and a few have yet to start.[1] The experience of comprehensive reforms in LDCs is therefore relatively brief.

Reforms have proceeded through two stages: an initial stabilization phase aimed at quickly correcting external and internal imbalances, followed by more long-term adjustments in sectoral policies. Typical reform programmes comprise most, or some, of the following policy changes which impact on agriculture:

- currency devaluation – resulting in reduced implicit taxation of agriculture and other tradable sectors, and less administrative rationing of foreign exchange;
- liberalization of imports through reduced tariffs and non-tariff barriers;
- reduced public spending;
- tight monetary policies, which involve *inter alia* restricting credit supply and attaining real positive interest rates;
- tax reform to widen the tax base and increase the efficiency of the tax system;
- liberalization of internal trade, by abolishing price controls, subsidies on consumer goods and restrictions on movement of goods across administrative borders;
- revoking monopoly powers and scrapping of subsidies granted to export crop marketing boards;
- cancellation of explicit export taxes on agricultural exports;
- removal of subsidies for agricultural inputs such as fertilizers, pesticides, seeds, machinery, credit and fuel;
- financial sector reform;
- privatization or liquidation of state-owned enterprises;
- civil service reform, aimed at improving the efficiency of the public sector.

Although many policy reforms have been undertaken, the reform process has been slow and, in many respects, is still incomplete.

The scope of the above policy measures gives an indication of the immense task faced, in formulating and implementing the new policies, by a public sector already demoralized and short of resources after years of economic crisis and, in some cases, years of civil war or strife. In many LDCs, reforms have met with strong political resistance. Although major policy adjustments have been undertaken, the reform process has been slow and, in many respects, is still incomplete.

C. Impact of reforms on LDC agriculture

The agricultural sector in LDCs (as discussed in chapter 1, Part Two) has been plagued by numerous problems contributing to its inefficiency and stagnant growth. These include high levels of explicit and implicit taxation, and pervasive government intervention in both output and input markets. The primary rationale for agricultural sector reforms has been to improve the internal terms of trade for agriculture and to stimulate greater efficiency through liberalization. Two important issues arise. First, have the reforms succeeded in changing the terms of trade in favour of agriculture? Second, if so, has there been an adequate supply response to the new terms of trade? The first two subsections immediately below examine these two questions respectively, while the third and final subsection discusses the problems and constraints in agricultural sector reforms in LDCs.

Changing the terms of trade?

Devaluation and removal of export taxes have resulted in a major reduction in the overall taxation of agriculture in a number of LDCs. Between 1981-1983 and 1989-1991 overall export taxation was reduced in 12 of the African LDCs shown in table 10, while it increased in the other seven countries (in the table an increase in the protection coefficient implies decreased taxation). In general, the countries in the sample did not reduce *both* explicit taxation and implicit taxation (from overvalued exchange rates). Most countries removed one, but not the other. Only Burundi, Guinea, Madagascar and Malawi reduced taxation on both fronts, while the remaining countries reduced one, but increased the other (or increased both, as in the case of Guinea-Bissau and Zambia). In a number of

countries the increased currency overvaluation more than offset the reduction in explicit taxation.

Many of the countries that devalued their exchange rates managed to reduce the overall level of tax on agriculture, even while increasing explicit tax levels (World Bank, 1994a). But in some cases, for example coffee in the United Republic of Tanzania or groundnuts in the Gambia, the benefits of devaluation may have been entirely appropriated in the form of increased taxation or increased marketing margins by export marketing boards. In many of the African countries, price reform was far from complete in 1991, but has since progressed significantly. In Bangladesh, devaluation and reduced explicit taxation reduced the overall taxation of agriculture during the 1980s (Rahman, 1993).

However, as shown in table 10, reduced taxation has in many cases been insufficient to compensate farmers for declining world market prices for export crops. Between 1981-1983 and 1989-1991, real producer prices of agricultural exports increased in eight countries in table 10, while they declined in 11 countries. The consequences of reforms for producer price changes are far from uniform, since taxation was higher for traditional export crops before reforms than for typical food crops, which were not subject to explicit export taxes.

In general, African LDCs did not reduce both explicit taxation and implicit taxation and, where reduced taxation did occur, it was in many cases insufficient to compensate farmers for declines in the world market prices of export crops.

Price controls and subsidies have now largely been abandoned in the reforming countries. Before reform, 17 out of 20 African LDCs had market controls and subsidies for fertilizers. By late 1992, 13 countries had no controls or subsidies, while five countries still provided some subsidy (World Bank, 1996a). Among Asian LDCs, Bangladesh removed fertilizer subsidies and liberalized marketing, but Nepal still subsidizes fertilizer.

While early reform programmes placed great emphasis on "getting the prices right" through devaluation, price liberalization and so on, the emphasis has since moved more towards "getting the institutions right" (World Bank, 1996a). That

TABLE 10: CHANGES IN AGRICULTURAL TAXATION AND REAL PRODUCER PRICES OF EXPORT CROPS
(Percentage change)

Country	Change in real protection coefficient, 1981-1983 to 1989-1991	Change in real producer price of export crops, 1981-1983 to 1989-1991
Guinea	325.8	..
Madagascar	117.1	5.3
Malawi	78.3	-8.8
Uganda	33.9	-36.8
Central African Republic	31.5	-1.8
United Rep. of Tanzania	30.6	8.3
Burkina Faso	17.9	30.6
Rwanda	15.2	-23.3
Burundi	15.0	-18.1
Togo	10.9	15.8
Mali	9.4	5.8
Niger	1.1	2.6
Mozambique	-2.0	16.2
Gambia	-10.3	-25.0
Chad	-27.4	-12.9
Benin	-27.6	21.7
Sierra Leone	-33.4	-62.0
Guinea-Bissau	-70.3	-52.1
Zambia	-76.0	-42.7

Source: World Bank, 1994a, pp. 244-245.

While early reform programmes placed great emphasis on "getting the prices right" through devaluation, price liberalization and so on, the emphasis has since moved more towards "getting the institutions right".

means replacing inefficient public marketing agencies by increasing private sector involvement and creating an institutional framework conducive to increased competition, with significantly reduced government intervention in marketing food crops and inputs. Of the 19 African LDCs in table 10, 13 had significant restrictions on purchases and sales of the major food crop before reform, while only three (Malawi, Mauritania and Zambia) retained some limited restrictions by 1994 (World Bank, 1994a, p. 85). Liberalization of agricultural markets has continued, although reform of controlled marketing of export crops has proceeded at a slow pace. In 1992, marketing of the main export crops was still controlled by public sector monopolies in most of the African countries listed in table 10 (World Bank, 1994a, pp. 232-233).

Although the currencies of many reforming LDCs remain overvalued to some degree, overvaluation has generally been significantly reduced: several LDCs have introduced floating exchange rates, while the countries of the Communauté financière africaine (CFA) devalued by 50 per cent in 1994 (see box 1, Part One).

Supply response of agriculture to reforms

Measuring the supply response of agriculture in LDCs is hampered by several problems. First, agricultural statistics are notoriously unreliable. Data on cultivated area and production are typically aggregated from agricultural field officers' estimates – estimates which are inaccurate and frequently severely biased, as in the case of food crops in Tanzania (Sarris and van den Brink, 1993). Large volumes traded in informal, or illegal, markets are not registered. Furthermore, after liberalization, data on traded quantities can no longer be collected by trading monopolies. Second, frequent weather changes cause wide fluctuations in production from year to year, often obscuring farmers' responses to policies. Disaggregating the effect of policy change from non-policy or natural causes is thus often difficult (see box 9). For example, two good harvests in Tanzania following reforms in 1985 were due more to adequate rains than to improved policy environment, although policies certainly helped in sustaining production.

A detailed analysis of six country case studies[2] (Bangladesh, Burkina Faso, Madagascar, Uganda, the United Republic of Tanzania and Zambia) reveals that if producer prices increase and the functioning of markets improves, there may indeed be a substantial supply response from farmers. In all the case studies, non-traditional exports seem to have responded favourably to reduced implicit taxation through devaluation and more liberalized trade regimes. Previously non-exported agricultural goods have become competitive in regional and global markets.

Attempts to measure the effects of adjustment by comparing agricultural growth in African countries grouped according to their adjustment efforts seem to show somewhat improved growth rates among adjusting countries.[3] Sorting out the African LDCs in table 10 into two groups on the basis of changes in producer prices during the 1980s, the World Bank concludes that there appears to be a positive relationship between improvement in producer prices and agricultural growth rates (World Bank, 1994a). This exercise also highlights the importance of other factors in determining output growth: the elimination of high taxation of agriculture is a necessary, but *not* sufficient, condition for achieving high growth rates.

Box 9: Supply response of agriculture to price changes

Numerous studies have been undertaken to measure the supply response for individual crops to policy changes, but there are fewer studies of aggregate agricultural supply response to improved terms of trade. The supply elasticities for individual crops are generally found to be high, as farmers shift from less profitable to more profitable crops as their relative profitability changes, while the short-term elasticities of total agricultural supply are found to be much lower. In a review of econometric studies in developing countries, these elasticities were found to be in the region of 0.1 to 0.3 (Binswanger, 1994), whereas the long-run elasticity is higher:

> "... the long run aggregate supply elasticity with respect to prices lies in the range 0.3-0.9. It is not greater than 1.0, as is sometimes claimed by those who ascribe primacy to price policy, or as low as zero, according to those who view price policy effects as insignificant. It is higher around 0.7-0.9 in the more advanced land-abundant developing countries. However, in poorer countries with inadequate infrastructure its value is lower, around 0.3-0.5." (Chhibber, 1989, p. 56)

A more recent review (Schiff and Montenegro, 1997) supports this conclusion, although the authors find several reasons for believing that predictions of supply elasticities based on econometric estimates will be too low. They stress the complementarity between price factors and the provision of public goods, the credibility of reform, price variability, and so on. The extent of supply response also depends on the degree to which the agricultural sector is developed: where the provision of public goods is adequate and infrastructure is well developed, the response to a price change will be greater than where such "non-price factors" are less favourable. Indeed, as noted by Binswanger, econometrically it is easier to show the supply effect of improved infrastructure, services and human capital than it is to show price effects (Binswanger, 1994).

Even if supply elasticities are relatively low, and price changes are substantial (as they would be if taxes in the order of 50 per cent were removed), supply response should be substantial. As discussed in the main text, however, because of low world market prices, incomplete reform and depressed domestic demand for food, producer prices have not in general increased to levels envisaged before the reforms, and have in many cases even decreased. It should therefore not come as a surprise that major increases in aggregate production have failed to materialize in several reforming LDCs. Although there has been considerable growth in agriculture in most LDCs, this has in general been insufficient to outstrip population growth over the last one and a half decades.

Problems and constraints in reforming LDC agriculture

The supply response in LDCs is constrained by two sets of factors. The first of these is such often frequent natural occurrences as floods, drought and pests, which generate high levels of price and yield uncertainty. The second set of factors is structural constraints, including low productivity technologies, seasonal labour shortages, low levels of human capital, poor infrastructure, poorly developed market institutions, and inadequate access to capital in the form of savings or credit.

Public investment in agricultural research and extension and in rural infrastructure has been too low.

The severity of many of these constraints can be attributed in part to the historically low levels of investment in agriculture and rural infrastructure, and to a general anti-market bias in LDCs over many years prior to reforms. Private investment in agriculture was constrained by low producer prices, which reduced incentives to invest and farmers' investable surpluses. Although public expenditure on agriculture was relatively high as a share of GDP (about 7.5 per cent for a sample of 40 developing countries (Blarcom, Knudsen and Nash, 1993)), it was small compared with the share of agriculture in total GDP in these countries. A large share of this expenditure was for various subsidies and transfers, with a smaller proportion allocated to productivity-increasing investments. Public investment in agricultural research and extension in sub-Saharan Africa has thus generally been less than 1 per cent of agricultural GDP, compared with more than 2 per cent for the faster-growing Asian countries. As a consequence, productivity-increasing technologies (high-yielding varieties, cultivation methods, etc.) adapted to the varied African agro-ecological conditions are limited. For example, in the United Republic of Tanzania, the lack of disease-resistant coffee

trees necessitated high pesticide application rates, which squeezed profit margins and reduced the international competitiveness of coffee production (World Bank, 1994b).

At another level, several constraints faced by farmers in responding to reforms have been exacerbated by features of the stabilization and adjustment process itself. These relate to increased uncertainty about prices and institutions, restricted access to credit, and costs of transition.

Liberalized markets seem to have increased the variability and uncertainty of producer prices in a number of instances. Price uncertainty will in general have a depressing effect on production by smallholders in developing countries with poorly developed financial markets. This effect might, in some instances, outweigh the stimulative effect of price increases (Barrett, 1994).

In expanding production beyond subsistence needs, peasants become dependent on well-functioning markets for inputs and produce. Erratic access to inputs will deter the adoption of new technology, as will inefficient output markets. In a number of LDCs, for example Zambia, it appears that institutional restructuring, which has been an important part of the reforms, has increased the (already great) uncertainty regarding timely access to input and output markets, at least in the transitional period.

The risk of policy reversals has deterred potential investors, particularly in the African case studies rather than in Bangladesh. Where pre-reform policies had strong anti-trade and anti-private sector bias, it appeared that the private sector demanded higher short-term return on investments, mainly because it was poorly developed, but probably also because it was wary of exposing itself to policies whose continuation could not be guaranteed.

In many reforming LDCs, tight monetary policies have increased interest rates, which seriously constrain the private sector in undertaking productive investments. Although access to formal credit may have been severely restricted for small-scale farmers and traders even before reforms, high nominal interest rates in the formal financial sector may have siphoned off financial resources from the informal sector (where this existed) to the formal sector, and therefore reduced the supply of credit even from this source (Rahman, 1992).

The provision of public services in support of private investment has deteriorated since the onset of the economic crises that necessitated reforms. This is unlikely to be the outcome of the adjustment process, since there has been no across-the-board cut in government expenditures in Africa as a consequence of adjustment itself, although experiences are diverse (Sahn, 1992). Despite fiscal restraints, government deficits have remained high, and a large share of spending is committed to debt servicing. Real spending, net of debt servicing, on average has remained relatively constant, but expenditure per capita has declined. It has proved difficult to reduce the number of government employees,[4] support to state-owned enterprises and expenditure on subsidies. In the United Republic of Tanzania nearly 40 per cent of the agriculture and natural resources development budget was allocated to parastatals in 1992 (World Bank, 1994b), and in Bangladesh the 1994/95 losses of state-owned enterprises were approximately 2 per cent of GDP (EIU, 1995).

The consequences of reforms for agricultural research and extension have also been uneven. In African LDCs, the share of government expenditure on agricultural research increased from 0.88 to 1.14 per cent (the same as the 1971

level) over the 10-year period from 1981 to 1991. Relative to the output of agriculture, however, research expenditure has remained fairly constant at about 0.8 per cent of agricultural GDP. With an increase in the number of researchers, spending per researcher has shown a strong downward trend with possible deleterious effects on the efficiency and effectiveness of agricultural research in the region (Pardey, Roseboom and Beitema, 1997).

D. Agricultural development in relatively successful developing countries

Success in agricultural development has been achieved by many Asian and Latin American countries through a combination of technological innovation and institutional and political reform.

From about the end of the 1960s, and particularly during the 1970s and 1980s, many Asian and several Latin American countries made significant progress in agriculture – a phenomenon commonly known as the "Green Revolution". Most of these countries rapidly increased per capita food production, and several of them achieved near self-sufficiency in food without imposing high domestic resource costs or inefficiency.

The relative success of agricultural development in these advanced developing countries, particularly in South and East Asia, is underscored by two sets of factors: technological progress, and institutional and policy reforms.

Technological progress

The major source of agricultural growth in these developing countries over the past two decades or more was an increase in yield per hectare. About 70 per cent of the increase in output was contributed by yield growth, and 30 per cent was due to the expansion of land under cultivation. In South Asia, more than 80 per cent of the increase was due to the increase in yield. The increase in harvested land was due to a 62 per cent increase in arable land and a 38 per cent increase in cropping intensity (FAO, 1995). The factors that contributed to an increase in yield per hectare and cropping intensity were (i) extension of irrigation, (ii) increased use of fertilizer, and (iii) the availability and rapid diffusion of high-yielding seeds. It is estimated that about 70 per cent of the increase in rice production in Asia was due to a synergistic interaction between these three factors, with extension of irrigation leading the way.

In terms of all these factors, sub-Saharan Africa (SSA) – the main location of LDCs – lagged behind the more advanced developing countries in South Asia. In 1990, only 2 percent of the arable land in Africa was irrigated, compared with about a third of the arable land in South Asia (FAO, 1995).[5] While the share of area planted with modern varieties was 67 per cent (rice), 88 per cent (wheat) and 45 per cent (maize) in Asia in 1990, corresponding figures for Africa in the same year were 15 per cent, 52 per cent and 43 per cent for rice, wheat and maize respectively. Fertilizer consumption in South Asia increased by about 10 per cent and 8 per cent per annum during the 1970s and 1980s respectively. Corresponding consumption growth rates per annum for sub-Saharan Africa were about 6 per cent during the 1970s and 3 per cent during the 1980s (FAO, 1995).

How did these three factors, identified above, contribute to the rapid growth of the agricultural sector in developing countries, particularly those in South Asia?

Irrigation policy

The rapid expansion of irrigation in many Asian countries during the 1950s and 1960s was based on the considerable irrigation potential (i.e. groundwater and surface water) in the region. Two policy measures were, however, relevant to the development of irrigation. First, the government played an important role not only in assessing and surveying the irrigation potential, but also in investing in irrigation projects, especially large-scale projects.[6] Second, the government took the lead in introducing new technology for medium- or small-scale irrigation projects such as tube well or lift irrigation systems. Given the high cost and the long gestation of large-scale irrigation projects, greater attention over time was paid to small-scale projects with a shorter life and smaller investment requirements. This was cost-effective, whenever there was uncertainty regarding long-run water availability.

Rapid growth in Asian agriculture was driven by investment in irrigation, increased fertilizer use and the adoption of HYVs.

The role of private investment, which was in any case important in the traditional irrigation system that depended primarily on human or animal power, also expanded in the modern system after the state-initiated and/or state-sponsored small-scale irrigation methods were popularized and their profitability demonstrated.

The second important feature of irrigation development was the provision of subsidies. In the case of large-scale surface irrigation projects, water charges/fees paid by the farmers did not, in many instances, fully cover the maintenance, operation and repair costs, let alone the depreciation and interest costs on past investment. In the case of groundwater irrigation, prices of pumps or tube wells were frequently subsidized, as was the price of oil and electricity used to run such equipment (Hanumantha, 1994).[7]

Fertilizer policy

The expansion of the use of fertilizer was due to a combination of factors:

- high return on its use in irrigated land with improved varieties of crops;
- a favourable price ratio between crop and fertilizer;
- expanding and assured supply of fertilizers;
- education and extension services provided to farmers.

Both the public and private sectors played a role, in varying degrees, in different countries in the marketing and distribution of fertilizer. At the beginning, private sector involvement was limited to supplying the needs of large commercial farmers or plantations. The public sector agency undertook the large-scale distribution of fertilizer in order to meet the needs, especially of small farmers, in most Asian countries. However, over time, the role of private traders expanded rapidly, particularly in retail distribution.

Public sector distribution of fertilizer was associated with, and facilitated by, the provision of fertilizers at subsidized prices to farmers. In the early years, when farmers had yet to learn the correct timing, method and doses of fertilizer application, fertilizer use was risky since returns were uncertain. Also, new seed varieties (jointly applied with fertilizer) were often associated with an increase in the variability of yields; and inadequate water reduced expected returns on fertilizer. Thus, while farmers had to incur additional fertilizer costs, returns on its use were uncertain. They therefore had to be high in order to offset the risks of uncertain yield in the face of high additional costs of fertilizer use. For risk-averse farmers, fertilizer subsidy played an important part in offsetting or reducing these risks. Moreover, in the early years, the volume of sales was low and

hence per unit distribution costs were high. By expanding demand and sales, a subsidy reduced distribution costs. Once the higher level of demand was established, per unit costs went down.

Innovation in plant technology

The most critical component of the Green Revolution technology was the availability and diffusion of high-yielding varieties (HYVs), primarily of wheat and rice, resulting from joint research efforts over many years by national and international research centres. Between 1961-1965 and 1981-1985, the number of researchers and the amount of research expenditure grew at between 6 and 7 per cent per annum both in developing countries as a whole and in Asia. Associated with this was an expansion of education and training facilities and the extension system for farmers, which enabled them to apply the results of research in their fields. The diffusion of new technology was also facilitated by rapid development of infrastructure, including roads, electricity, transport, communications and credit.[8] Infrastructure widened market demand, encouraged the division of labour, and expanded access to inputs, credit and extension services (Binswanger, Khandker and Rosenzweig, 1989; Islam, 1989; Rosegrant and Evenson, 1993; Braun, Malik and Zeller, 1993).

Between 1961-1965 and 1981-1985, the number of researchers and the amount of research expenditure grew at between 6 and 7 per cent per annum both in developing countries as a whole and in Asia.

Some of these policies, notably public sector management of irrigation systems and fertilizer subsidies, have run into problems in recent years. Public sector management and subsidized financing of irrigation systems have come under serious scrutiny from the point of view of both efficiency and equity. Three important drawbacks have been emphasized. The first of these is wasteful use of water, it having been alleged that in many cases less than 50 per cent of the water supplied by an irrigation system reaches farmers' fields owing to seepage, erosion and wastage of various kinds. The other two drawbacks are inequitable distribution of water among farmers in the upper and lower sections of surface irrigation systems, and overutilization of the water system due to underpricing.

Fertilizer subsidies became unsustainable for several reasons. For example, while subsidy was intended for poor farmers, the small and marginal farmers seldom had much access to fertilizer at subsidized prices: they frequently paid the unofficial market price, which was much higher than the government-controlled subsidized price. Fiscal constraints limited the total quantum of subsidy, which in turn determined the quantity of total fertilizer that was distributed. Supply was therefore restricted not so much by a shortfall in production or imports of fertilizer as by an exogenous factor in the form of budgetary resources available for the provision of subsidy.[9]

The growth in agricultural productivity in several developing countries in Asia and other regions that were the pioneers of the Green Revolution is slowing down for several reasons. First, the pace of technological progress in generating new varieties has slowed down: there have been no significant discoveries or innovations since the late 1960s or early 1970s. Second, further progress in productivity will depend on the increased efficiency of input use as a result of improved training and education, and improvement of farmers' management skills. Third, the Green Revolution has so far been confined in most countries to a few crops and to agro-ecologically more favourable areas.

Institutional and policy reforms

A technological breakthrough was possible in most Asian developing countries because governments gave high priority to agriculture. The share of total agricultural expenditure (i.e. current and capital/development) in total govern-

ment expenditures was about the same in Asia and developing countries as a whole. However, in Asia public expenditure was concentrated on the promotion of research, extension, training, agricultural credit and rural infrastructure, i.e. activities that played a critical role in agricultural development.

The land tenure system relating to distribution of land ownership as well as farmers' rights and obligations for the use of land, as discussed in chapter 1, Part Two, has implications for agricultural development. In Asia, for example, the system was either peasant proprietorship or state ownership with farmers as tenants. Land reform legislation in Asia was mainly directed towards placing a ceiling on land ownership or regulating tenancy rights, i.e. rents and security of tenure. In the Republic of Korea in particular, land redistribution has been successful.

Asian experience showed that neither farm size nor land tenure was a serious constraint on the adoption of new varieties or new technology. However, the rates of adoption varied, being higher among larger farmers; within relatively few years, however, lags in adoption rates due to differences in size and tenure disappeared (Vyas, 1983). Though new technology was scale-neutral, access to the resources needed for utilizing it was not equal. Small farmers did not have equal access to credit, inputs and services. Thus, the large farmers gained proportionately more than the small farmers in respect of increased income.

Although many Asian developing countries pursued policies which were inimical to agricultural investments, total agricultural taxation was much less in Asia than in Africa.

Many Asian developing countries pursued policies which were inimical to agricultural investments – for example, administered prices which were kept below world prices, overvalued exchange rates which depressed domestic returns on export crops, and import-substituting industrialization which raised the cost of manufactured inputs used by agriculture. High profits generated by protectionism in the manufacturing sector also discouraged agricultural investments. Total indirect taxation of the agricultural sector (i.e. resulting from both industrial protectionism and the overall exchange rate and trade policies) was estimated at about 22 per cent on average in a number of developing countries, whereas the direct taxes resulting from agricultural sector-specific policies were about 8 per cent (Krueger, Seniff and Valdes, 1988). Total agricultural taxation (i.e. direct and indirect) was, however, much less in Asia than in Africa. In addition, higher levels of public investment in infrastructure, irrigation, research and extension, and so forth in Asia partly mitigated the disincentive effects of economy-wide and sectoral policies.

Indiscriminate and inappropriate use of fertilizer and pesticides resulted in the pollution of water and soil, and had an adverse impact on human health in a number of countries.

At present, there is a movement away from state intervention in marketing and pricing of outputs and inputs with a view to bringing domestic prices into line with border prices. As a result, the discriminatory effects of macro or sectoral prices have been reduced. The reform of incentive structures for agriculture is also important in view of increasing concern regarding environmental degradation such as soil erosion, waterlogging and soil salinity. Indiscriminate and inappropriate use of fertilizer and pesticides resulted in the pollution of water and soil, and had an adverse impact on human health in a number of countries. Water subsidies, together with inadequate institutional arrangements for water management, also encouraged waterlogging and salinity.

E. Policy implications for agricultural development in LDCs

Currently, the agricultural sector in LDCs (as discussed in chapter 1, Part Two) is characterized by very limited use of modern inputs and a low rate of irri-

gation. A wide range of policies relating to technology, institutions, infrastructure and economic incentives – macro and sector-specific – have to be pursued in order to accelerate the pace of agricultural development.

Search for appropriate technology

The agro-ecological characteristics of LDCs vary widely: there are mountainous regions such as Nepal, alluvial delta regions such as those in Bangladesh, large arid or semi-arid regions in Africa and parts of Asia, and the sub-humid regions of Africa. The diversity in agro-ecological characteristics between subregions in Africa, and even within individual countries, is much greater than in Asia. This makes the task of developing appropriate technology much more challenging in Africa than would otherwise have been the case.

The great diversity in agro-ecological characteristics in Africa makes the task of developing appropriate agricultural technology much more difficult.

For a few LDCs that are located in regions well endowed with water, either from rainfall or from rivers/streams, technological constraints are not all that serious and agricultural prospects are good. In several high-altitude upland areas and low-altitude irrigated areas, not much of the currently available modern technology is utilized. In others, where available technology can be used with local adaptation, there are prospects for significant progress. However, for arid, semi-arid and less-endowed regions with diverse ecological characteristics, there is a need for the development of new technologies, e.g. appropriate seed varieties, and a combination of modern inputs suited to the environment. Also needed is better integration of annual crops with perennial crops, farm trees and livestock in order to improve the management of soil fertility, erosion and organic matter, as well as plant nutrients. This requires multi-disciplinary research.

Management of water and modern inputs

LDCs, more so than other developing countries, face the challenge of harnessing water for agriculture, particularly since competing demands for water will increase over time. Moreover, such water potential as exists in LDCs has not been exploited in a cost-effective manner: less than a third of the irrigation potential is exploited in Africa (Pardey, Roseboom and Anderson, 1991). Relatively greater attention has to be paid to small-scale projects; they cost less, are labour-intensive,[10] and do not unduly strain administrative and management capacity. The possibility of using low-cost pumps and wells to tap shallow aquifers, as well as rivers or streams, should be fully exploited (Svendsen and Meinzen-Dick, 1989). Much greater focus is needed on increasing the efficiency of use of irrigation water, which may require properly organized hydrological surveys in different regions or subregions.

Improved use of water in irrigation systems, both off-farm and on-farm, requires appropriate institutional arrangements not only for operation and management but also for the rational pricing of water. Public management and financing of irrigation systems can be improved through appropriate cost-recovery measures, their income thus being linked to the quality of their performance. Also, the government may finance the operation and maintenance of dams and main canals, while the farmers manage and finance the distribution canals and field channels. Alternatively, the ownership and management, including operation and maintenance, of canals may be transferred to farmers' associations, as has been tried in Nepal (World Bank, 1995).[11]

African LDCs have the lowest application of fertilizer per hectare in the developing world, with the risk that soil nutrient mining, if left unchecked, will lead to soil degradation and falling crop yields. An appropriate combination of different types of fertilizer, both inorganic and organic (leguminous crops, plant

wastes and manure), increases the efficiency of fertilizer use and enhances crop yields. The manner and the timing of fertilizer application need to be improved in order to reach the roots of plants, avoid wastage and maximize yield (Alexandratos, 1995).[12]

Multiple cropping, shortened fallow periods and mono-cultures based on HYVs contribute to the susceptibility of crops to pests. Over time, crop pests become resistant to pesticides, and new pesticides thus need to be developed continuously. Inappropriate or overuse of pesticides, due partly to overestimation of risks by farmers and partly to subsidized prices, leads to environmental risks.[13] To minimize the negative aspects of pesticides requires an integrated pest management system which combines (a) non-chemical means of pest control such as pest-resistant crop varieties, crop rotations and intercropping, and (b) natural predators (biological means of pest control), with selective use of pesticides. There is much to learn from the experience of Asian countries such as Indonesia in this respect.

Constraints on agricultural modernization

Development of appropriate institutions and infrastructure is important if agriculture in LDCs is to be put on a dynamic growth path.

Development of appropriate institutions and infrastructure is important if agriculture in LDCs is to be put on a dynamic growth path. Land tenure systems have to be responsive to the new demands of a modern or commercial agricultural sector; efficient rural financial intermediation is crucial for providing credit to farmers to finance investments in new technology; and social and physical infrastructure must be improved in order to facilitate not only the adoption of new technology, but also the marketing of agricultural inputs and outputs.

Access to land

In many LDCs, especially in Africa, the traditional land tenure system has customary rules for (a) community ownership of land, and (b) the allocation of use rights to the members of the community (see chapter 1, Part Two, box 6). The land tenure system has, however, evolved under the pressure of social and economic changes, with devastating consequences for economic activities. Currently, there is great uncertainty and the possibility of conflicts in respect of rights and responsibilities, with adverse effects on incentives for private investments and technological innovations. At the same time, much common property land (i.e. forests, wetlands and range lands) has become open access resources which are being environmentally degraded as result of unregulated or excessive use. The need for some form of action by the State cannot therefore be denied.

Improving access to land and enhancing security of tenure for farmers in developing and least developed countries have proved a vexed issue in most agricultural modernization schemes.

Improving access to land and enhancing security of tenure for farmers in developing and least developed countries have proved a vexed issue in most agricultural modernization schemes. Two methods have been used in the past to tackle the problem – nationalization and commercialization of lands – both of which have had mixed results. The social and economic dislocations that accompanied their abrupt introduction in developing and least developed countries that have implemented land reforms would suggest caution in introducing either of them on a large scale in any LDC. Furthermore, the bewildering variety of land tenure arrangements in LDCs makes it impossible to suggest a specific mechanism to resolve the issue of insecurity of tenure.

In the long term, individual land titling (commercialization of lands) will almost certainly be crucial for modernizing LDC agriculture. However, in the immediate to short term, LDCs' governments may have to limit themselves to ad-

dressing those aspects of the traditional tenure systems which constrain agricultural modernization, without completely discarding such arrangements.

Wherever the traditional system exists without much privatization but is currently not protected by law, it should be so protected if this is feasible. Group land titles (ownership rights) can be provided to traditional communities. Local communities can be provided with user rights (rather than ownership rights) on a long-term basis, where traditional ownership has been replaced by state ownership. Land titling is urgently needed where the traditional system has almost broken down. Each of these types of arrangements for the ownership and use of land needs to be regulated and protected by law, and enforced by a strong legal and judicial system. In LDCs experiencing heavy and increasing pressure on land, with very small farms under peasant ownership and/or under tenancy arrangements, as in Bangladesh, a redistribution of land will be unable to create viable farm sizes.

Access to credit

In view of the underdeveloped financial infrastructure of LDCs and the inability of development finance institutions (DFIs) or rural financial institutions (RFIs) to serve farmers and rural dwellers efficiently, innovative approaches may be required to tackle the credit problems of farmers in LDCs (the previous chapter discusses the issue of rural finance).

Rural social infrastructure

Weak rural infrastructure in LDCs has resulted in very large marketing margins between producer and consumer prices in different parts or regions of a country. In Asia, average producer price as a percentage of terminal price is between 75 and 90 per cent, and in Africa between 35 and 60 per cent. Transport and associated marketing costs account for 39 per cent of differences in marketing margins between Asian and African countries. The quality of rural roads deteriorated considerably during the 1980s in a number of LDCs.[14] Rehabilitating these roads, especially feeder roads, and improving transport systems (either animal-driven or power-driven, depending on circumstances) deserve high priority. Local governments in association with local contractors, technicians and the local community can make a significant contribution in this regard.

The very high marketing margins prevailing in Africa are attributable in part to the poor condition of the transport infrastructure.

In recent years, the NGOs have played an important role in constructing and maintaining rural roads, relying heavily on labour-intensive methods, with the objective of expanding rural employment. The potentials of NGOs collaborating with local governments not only in expanding rural infrastructure but also in enhancing farmers' access to credit, extension services, training etc. should be explored and fully utilized.

Improved roads and other communication networks will enhance the effectiveness of the extension and training system for farmers, and improve the competitiveness of markets for both inputs and outputs. Educational facilities, including long-distance education programmes, will increase the rate of adoption of new technology as well as greatly enhance the efficient use of modern inputs. Potable water and health facilities will improve the health status of farmers and not only reduce the number of work days lost through ill health, but also increase farmers' labour output.

Institutional support

Agricultural development will require considerable improvement in the education and training of farmers, and particularly expansion of extension services,

which are very weak in most LDCs. Four to five times more farmers are served by an extension worker in LDCs than in the more advanced developing countries (Islam, 1989). Critical policy issues regarding the long-run development of extension and training services include the following:

- Appropriate balance between expenditures on extension and training on the one hand, and research on the other;
- Interaction and integration between extension and research systems through a two-way flow of information and expertise between farmers and extension workers on the one hand, and between researchers and extension workers on the other. Given the wide diversity of agro-ecological characteristics and of crops, extension and research will need to be location- and crop-specific;
- Continuous upgrading of the skill and education of extension workers. Different systems of agricultural extension have to be experimented with in order to develop the appropriate system of extension. Alternative systems of extension range from those based on lead or progressive farmers or on farmers' groups with similar problems, to the "training and visit" (T&V) system. In countries where female farmers play a leading role, extension and training have to be reoriented to serve their needs;
- NGO participation in agricultural extension and training, and the possibility of using the services of large private marketing organizations in extension work, both of which should be explored.

Agricultural development will require considerable improvement in the education and training of farmers, and particularly expansion of extension services: four to five times more farmers are served by an extension worker in LDCs than in the more advanced developing countries.

The experience of successful research systems elsewhere in developing countries suggests that future progress in LDCs will require (a) long-term commitment of national resources to selected priority areas; (b) high status and adequate incentives for agricultural researchers within the hierarchy of administration and professional services; and (c) scope for autonomy/flexibility and initiative for leadership in research institutions. Regional cooperation among the small LDCs will help them to realize economies of scale as well as to ensure a critical mass of researchers.[15]

Most LDCs are faced with the difficult challenge of generating new technology for a large number of crops such as maize, coarse grains (e.g. sorghum and millet), as well as roots and tubers. Despite their relative importance, coarse grains, roots and tubers have *not* benefited much from past research efforts. Also, there is a continued need for research into traditional export crops such as coffee, cocoa and tea, which are important sources of income and foreign exchange in many countries. For each country, there is a need to prioritize research areas,[16] taking into account a variety of factors, including biological potential, incidence of drought, pests and diseases, soil types and management, and the long-run demand prospects for each crop.

Agricultural research traditionally emphasized research into crops rather than soil and water management. This bias needs to be corrected because many LDCs suffer from constraints imposed by limited water supplies and fragile soil. There is a need to expand research and development (R&D), especially in the area of biotechnology, as regards crops of particular interest to LDCs for which increased human and budgetary resources will be required. At present, very few LDCs, if any, can afford these. This is thus one area in which donor funding can make a significant impact. Cooperation between public and private sector research should be encouraged; for example, the results of private sector research can be made available to public sector institutions, either as a grant or on favourable licensing terms (Leisinger, 1995).

Markets, prices and incentives

Issues here relate to the competitiveness of markets for inputs and outputs; the efficient allocation of resources (i.e. do prices reflect actual opportunity costs?); the relative role of the private and public sectors in agricultural markets; and the subsidization of agricultural inputs.

The public sector intervened extensively in the production, distribution and marketing of both inputs and outputs in many LDCs. The level of intervention, mainly regarding export crops, but also regarding food crops, was particularly high in Africa, and much less so in Asia. In recent years, there has been a gradual movement away from state participation and intervention, and towards deregulation in the agricultural sector in many developing countries, as well as in LDCs. Experience so far suggests that the pattern and process of privatization and deregulation should be determined *inter alia* by two important considerations: (i) the administrative and managerial capacity of the government agency; and (ii) the prospects for, and time lag in, the emergence and growth of the private sector. Where public enterprises are already engaged in marketing and distribution, an appropriate sequence of divestiture will depend on country-specific circumstances. However, the process should be handled diligently – first, to prevent dislocation in trade resulting from rapid dismantling of public enterprises; and second, to forestall the emergence of a private monopoly, which may lead to rising prices, inadequate investment and inefficiency.[17]

In view of its limited managerial capacity and of budgetary constraints, the State's guiding principle should be to concentrate on providing "public goods" such as education, extension, research, physical infrastructure and large-scale irrigation projects. That is, it should concentrate on activities where externalities result in inadequate private provision because social cost is less than private cost (or social benefits are greater than private benefits), or in excessive use because social costs exceed private costs, as in the case of overexploitation of common property resources. However, there may still be a need for the public sector in selected areas, such as relatively inaccessible or distant regions with underdeveloped infrastructure, low and uncertain agricultural production, very limited marketable surplus, etc. (Ahmed and Rustagi, 1987). The State is also likely to intervene in the domestic food market for food security reasons (see UNCTAD, 1995).

Given limited financial and human resources, government should concentrate on providing "public goods" such as education, extension, research and physical infrastructure.

Under a subsidized system, where supply is restricted, a subsidy merely generates rents for those who are lucky enough to secure access to limited supplies. Small farmers continue to pay high prices because they do not have access to fertilizer at subsidized prices and buy in the open or unofficial market. The policy priority in this case should be to reduce or eliminate subsidy and to augment supply in a deregulated market so that the market price falls below what obtained in the unofficial market under the subsidized price regime. While there will be a decrease in the use of fertilizer by those who had access to it at subsidized prices, there will almost certainly be increased use by those who previously bought limited supplies at unofficial market prices (the latter group will outnumber the former). The use of fertilizer may even increase if additional costs of use are offset by improved efficiency in the use of, and hence returns on, fertilizer. If output price rises because of market deregulation, the output-fertilizer price ratio will improve (see box 10).

To the extent that fertilizer subsidy is a compensation for high procurement and distribution costs, and lack of access to credit, the first best solution is to remove these bottlenecks rather than to provide subsidy.

In LDCs, the introduction of new methods of irrigation may require in the initial stages a subsidy to cope with the costs and uncertainties of "learning by doing". The provision of such a subsidy and the appropriate form in which it may be provided in order to facilitate the rapid diffusion of newly introduced technology or institutional arrangements should be country-specific, temporary and time-bound (preferably based on a pre-announced time schedule for its gradual elimination).

Experience shows that once a subsidy is in place it is very difficult to remove, since vested interests develop to defend its continuation.

Experience shows that in most cases it is far easier to introduce a subsidy than to reduce or eliminate it once it is in place, since vested interests develop to defend the subsidy and its continuation. However, in recent years, many developing countries in East and South Asia have substantially reduced subsidies for inputs and outputs. In Bangladesh, an LDC, there has been a significant reduction in input and output subsidies: in some cases, subsidies have been completely eliminated. It is politically feasible to reduce or eliminate subsidies, and the experience of reforming countries indicates that the timing and the pattern of reduction are important.

Macroeconomic policy framework

Many LDCs are in the process of implementing macroeconomic policy reforms such as liberalization of the foreign exchange regime, correction of an overvalued exchange rate and reduction in import protection. The progress of reforms should be accelerated. The reduction in industrial protection reduces the relative disincentive to agriculture, and exchange rate adjustment raises the market prices of exportables or importables, thereby encouraging the production of both import-substituting and exportable crops. The extent to which improvements in price incentives stimulates agricultural growth depends on the state of the infrastructure as well as the marketing and distribution system, all of which determine how widely and rapidly price signals are transmitted to farmers, and therefore their supply response. The availability of credit and other resources for farmers also determines the speed and magnitude of their response in increasing input use and expanding output.

The reduction in input subsidies should be accompanied or even preceded by a liberalization of output price and the creation of a domestic enabling environment to stimulate the private sector in agricultural output and input markets. The regulatory framework should facilitate rather than restrict private enterprise. Frequently, within the agricultural sector, restrictions are placed on private stockholding or storage in order to discourage hoarding or speculation, and sometimes interregional movements of food within a country are restricted: a removal of such restrictions should facilitate the supply response to price changes.

F. Conclusions

The strategy for accelerated agricultural growth in LDCs presents a considerable challenge. In some sense, LDCs have an advantage in being "late developers" since they can draw upon the lessons of the experience of other developing countries, avoid their mistakes and learn from their successes. Also, they can benefit from recent advances in the analysis and thinking regarding agricultural development policies and priorities. Furthermore, LDCs seek to achieve agricultural progress in the context of a changed international economic environment, especially in respect of trade (e.g. the Uruguay Round Agreements) and external

Box 10: Bangladesh: Reaping the fruits of liberalizing the agricultural input market

Fertilizer

The development of the fertilizer sector in Bangladesh is an interesting case of input market liberalization. Up to 1978, the Bangladesh Agricultural Development Corporation (BADC) had a monopoly on the procurement and distribution of fertilizer up to the sub-district level. Prices were largely subsidized and fixed at all levels. Competition at the wholesale or retail level was not allowed, and the number of retail outlets was restricted. The budgetary cost was high, and supplies were sometimes erratic (Renfro, 1992). In 1978, an experiment was initiated to allow private traders to compete at the retail level, but price deregulation was delayed until 1982. Gradual reforms since then have allowed an ever greater role for the private sector in the marketing of fertilizers at all levels, from retail to wholesale and importing.

The number of sales outlets for farmers increased by a third upon liberalization. In 1989, private traders were for the first time allowed to buy urea directly from the factories, in competition with the BADC. The market share handled by the private sector rapidly increased to about 90 per cent, and nominal farm-level urea prices fell by 10 per cent because of increased competition and reduced marketing margins (Renfro, p. 442). Despite the elimination of subsidies for urea, real farm-gate prices declined and availability improved as private traders had substantially lower marketing costs than the BADC. The reform did not increase differences in price and availability between remote and non-remote areas. While fertilizer prices were slightly higher for farmers in remote areas, there was little evidence that these farmers were adversely affected by deregulation. On the contrary, availability appeared to have improved (Renfro, p. 441), with a substantial increase in consumption.

However, following widespread allegations of fraud and collusion in the fertilizer market, in January 1995 the Government took over fertilizer distribution through its district officials. The new distribution system failed to deliver sufficient fertilizer to satisfy demand, a situation exacerbated by fuel and water shortages resulting in an estimated 14 per cent shortfall in the 1995 *boro* rice harvest (EIU, 1995).

Irrigation equipment and power tillers

Imports of irrigation equipment and power tillers were liberalized in 1987. Before the reform, a government agency tested models and issued an approved list of equipment for import which featured only one low-cost model of power tiller. All other approved power tillers came from high-cost suppliers. After reforms, many new models were imported, thus driving average prices down by about 40 per cent. In addition, farmers secured access to a much larger range of pumps for small-scale irrigation. The reforms brought about a rapid increase in the area irrigated (World Bank, 1996a), and appeared to have had a positive impact on the rapid growth in dry-season agricultural production, particularly of the *boro* rice crop, from 1989 onwards (Rahman, 1992).

Increased use of fertilizers, high-yielding varieties and irrigation significantly increased the share of the dry-season crop and smoothed annual price variations. Furthermore, rice imports have decreased to the point where self-sufficiency is within reach. The record rice crop of 1992 precipitated a real price fall of 30 per cent in 1992/93 (World Bank, 1995). Later harvests, however, failed to grow at the same pace, and the per capita production index has not risen since then (see table 6).

Note: Recent research has revealed that indiscriminate use of chemical fertilizer and toxic pesticides (nitrogen, phosphorus and potassium) has significantly reduced crop yields; for example, rice yields fell from 5 to 3.5 metric tons per hectare between 1970 and the mid-1990s (Bangladesh Government report, cited in the *International Herald Tribune*, 15 April 1997, p. 4).

resource flows, that has undergone, and continues to undergo, significant changes (see chapter 3, Part Two, and chapter 2, Part One).

The agricultural development strategy to be pursued by LDCs needs to be multi-pronged. Policies encompass technology, infrastructure, institutions and incentives relating to agriculture. They are interdependent and react synergistically with each other. LDCs have to achieve a technological breakthrough in cereal crops such as maize, sorghum and millet, as well as in roots and tubers, which were not the focus of research and development efforts in the past. They have to meet the challenge of intensified competition through improved efficiency and reduced costs.

LDCs should diversify their agricultural production within the context of existing opportunities and long-run comparative costs. Similarly, they will need to

devise appropriate irrigation technologies to complement mainly rain-fed agriculture, mostly in arid, semi-arid and sub-humid regions, and intensify research into soil and water resources. Several measures such as pricing policies for agricultural inputs and outputs and institutional reforms, will help improve both efficiency of production and the environment. Innovative ways of successfully extending credit to farmers, especially smallholders, to enable them to exploit new technology and market opportunities should be implemented. Greater participation by NGOs in these activities should be encouraged. Infrastructural bottlenecks, including marketing and distribution inadequacies, which act as serious constraints to expanding agricultural production need to be tackled urgently. An enabling macro and micro policy environment is essential. Many LDCs are already undertaking macroeconomic policy reforms involving trade, exchange rate, and fiscal and monetary policies, all of which impact on agricultural production. It is necessary to continue economic reforms to support investments in technology, irrigation, inputs and infrastructure. In the light of the broad considerations elaborated above, each country will need to develop a proper balance and sequencing between the various components of such a multifaceted agricultural strategy in the context of its particular circumstances.

The agricultural development strategy to be pursued by LDCs needs to be multi-pronged, encompassing the related areas of technology, infrastructure, institutions and incentives.

The human and financial resources required for investments in all these areas are clearly beyond the capacity of all but a very few LDCs. Assistance from international development organizations, multilateral financial institutions and bilateral sources to supplement LDCs' own resources will make a significant contribution in this regard.

Notes

1 It is, however, difficult to determine a precise starting date for reforms. Much of the debate on adjustment has confused the receipt of adjustment loans with actual policy reform. Many of the countries that have had adjustment programmes financed by multilateral institutions have shown weak commitment to reforming policies: reforms have often been reversed in several cases. Moreover, many of the early World Bank loan conditionalities only involved limited reforms in specific sectors, e.g. aimed at rationalizing and improving the performance of government agencies, or adjustment of relative prices to reduce taxation of agriculture, and required less in the way of institutional changes (World Bank, 1996a). Likewise, early finance from the IMF included conditionalities regarding monetary and fiscal policies, but had limited objectives for structural adjustment. Many LDCs undertook stabilization measures in the l970s and early 1980s, but major devaluations, trade liberalization and domestic market reforms were generally not started before the middle of the 1980s.

2 The analysis is based on a number of sources: Rahman, 1992, 1993; Renfro, 1992; World Bank, 1995 (Bangladesh); Sedogo and Michelsen, 1995 (Burkina Faso); Barrett, 1994 (Madagascar); Sepehri, 1993; World Bank, 1996b (Uganda); Mans, 1994; Sarris and van den Brink, 1993; World Bank, 1994b (Tanzania); and Jones, 1994 (Zambia).

3 Such studies have, however, been criticized for the methodologies employed as well as for the use of subjective criteria for grouping countries (i.e. according to their degree of adjustment) (Mosley, Subasat and Weeks, 1995).

4 A general feature of spending cuts undertaken in the 1980s seems to be that the number of public employees was not reduced, but cuts were imposed on wage levels and budgets for operational expenses and maintenance (Sahn, 1992).

5 Between 1960 and 1980, there was an increase of about 40 per cent in irrigated land in developing countries; and by 1990, 27 per cent of the arable land in the developing countries was irrigated. In a few countries, such as Pakistan, Sri Lanka and Indonesia, the percentages were as high as 71 per cent, 51 per cent and 38 per cent respectively (Islam, 1989).

6 In India, for example, during the period 1955/56 to 1982/83, public expenditure on irrigation (including flood control but excluding minor irrigation) constituted around 30-40 per cent of total public expenditure on agriculture and rural development as a whole (Leisinger, 1995).

[7] In Pakistan, subsidy as a percentage of costs of maintenance and operation of surface water irrigation was 60 per cent in 1989/90; and the price of electricity was 50 per cent below cost. In Bangladesh, subsidy on the sale price of tube wells was 40 per cent in 1989. In Indonesia, irrigation subsidy varied between 20 and 40 per cent of total public expenditure between 1983/84 and 1990/91. In India, the subsidy on the cost of surface irrigation (interest and depreciation costs plus costs of operation and maintenance) exceeded public expenditure on major and medium irrigation projects during late 1980s (Hanumantha, 1994).

[8] Access to credit in particular was essential for increased use of purchased inputs, and helped smooth out fluctuations in income and consumption.

[9] In most cases, subsidy was provided for inorganic fertilizers and thus encouraged the overuse of inorganic fertilizer in relation to organic fertilizers. This reduced soil fertility and caused adverse environmental consequences. Furthermore, it was urea (nitrogen fertilizer) that was subsidized proportionately more in relation to potash types and phosphate; this militated against a balanced fertilizer composition and reduced the nutrient content of soil and fertilizer yield. To some extent, the subsidized price of fertilizer compensated for the low price of agricultural output resulting either from direct public intervention in the marketing and pricing of output or from taxation of export crops. As output prices were deregulated or liberalized, this role for input subsidy was no longer justified.

[10] Such projects may be unsuitable for those SSA LDCs where (seasonal) labour shortages are acute.

[11] There are, however, formidable problems in organizing farmers' groups and associations to assume hitherto unfamiliar roles such as the management and financing of their irrigation facilities, which involves diverse and heterogeneous interest groups, and thus requires the delineation of the responsibilities of the association on the one hand, and the public sector agency on the other. A few East Asian countries such as the Republic of Korea and Japan have experience in this regard, which requires analysis for adaptation elsewhere (see, for example, Mitra, 1996).

[12] In recent years, efforts have been made to devise an integrated plant nutrient system (IPNS) involving the production of sufficient biomass to restore organic matter to the soil. This is especially relevant in arid and semi-arid areas.

[13] Health risks are also involved: to users through inappropriate handling, and to consumers of food that carries pesticide residues.

[14] Women bear most of the rural transport burden: much of the transport of rural commodities (farm inputs, fuel and farm produce) is done in the form of head-loading by women and young girls carrying loads of 10-25 kilograms (sometimes 40 kilograms), and covering 3-5 kilometres per hour, depending on terrain and load weight (Cleaver and Schreiber, 1994).

[15] Most of the least developed countries are small countries with limited equipment and laboratory facilities, and the dispersion of research institutions and a high turnover of researchers make it difficult to attain a critical mass of agricultural researchers.

[16] This is because research is a time-consuming and expensive process: often two decades or more elapse between the initiation of substantial research efforts and the availability of results ready for application in farmers' fields (Rosegrant, 1994).

[17] If privatization and liberalization result in private monopoly, rather than in a competitive market, the benefit of price increase will be, and has been in many cases, captured by the middlemen rather than by the farmers. In Madagascar, for example, private marketing intermediaries captured the major part of the 40 per cent increase in the real retail price of agricultural commodities in urban areas. Market liberalization increased the number of collectors, but that happened because of an expansion of the geographical areas covered by them. The number of collections at farmer level in the villages did not increase. Only 29 per cent of producers had access to more than one buyer (Carter and Barrett, 1993).

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Part Three

Economies in Regress

"What, in fact, is regress? The language of development economics, with its incurably optimistic bias, does not make it easy to discuss the topic. Take the term 'developing economy', which refers to countries that are lacking in development, whether or not they are actually 'developing' in any understandable sense. That usage clearly does confound the need for development with its occurrence – it is like defining a hungry person as 'eating'. Regress seems impossible in this framework.

But the world isn't quite like that. Despite unprecedented prosperity, it is replete with continued and sometimes increased destitution and expanded hunger, the persistent occurrence of preventable diseases and epidemics, and frequent outbreaks of terrible famines. These problems are sometimes more acute than they were in the past – and that certainly is regress in some important sense. To address the economics of regress is to take these problems seriously and to apply economic analysis to them. While economics has been called 'the dismal science', it is arguable that the subject is not quite dismal enough."

Amartya Sen,
Economic Regress: Concepts and Features, Proceedings of the
World Bank Annual Conference on Development Economics, 1993

Economies in Regress

Chapter I

The Crisis of Governance, State Failure and Internal Conflicts in LDCs

A. Introduction

Economic and social regress has afflicted countries in several regions of the world. Instead of development, these countries have experienced a marked deterioration in economic and social conditions. Regress has usually been accompanied by the degeneration of the administrative, coercive and public-service providing capacities of the State, and often, but not always, by internal conflict. In some countries the entire state apparatus has disintegrated amid acute civil strife and war. This process has been described as state failure or state collapse.[1] Institutional degeneration has also affected civil society: many of the social institutions which play a vital role in civic and economic life have been badly damaged, thus weakening the cohesiveness of the social structure. The depreciation of social overhead capital has left societies extremely vulnerable to shocks, whether from external causes, such as invasions, or internal causes, such as ethnic conflicts.

Regress is an incongruous phenomenon for development economics, with its implicitly optimistic notions that third world countries are actually developing rather than experiencing a worsening of economic and social conditions (Sen, 1994, pp. 315-316). UNCTAD's interest in this subject stems from its international dimensions as well as from the developmental consequences of regress and state failure in LDCs. Just as we have learned from the experience of successful development in developing countries (DCs), so it is important to draw lessons from those DCs in which development has been retarded. An understanding of the processes which have given rise to regress can help LDCs and the international community to devise appropriate policies to reverse them before more serious consequences, such as state collapse and complex emergencies, occur. Also, it is important to understand what can be done to reconstruct collapsed States and economies. Regress is not an irreversible process. Several LDCs, notably Uganda, have been successful in rebuilding their economies and state structures after suffering severe regress and civil war.

Regress and state failure have profound implications for the role of donors and international agencies.

Regress and state failure are not confined to LDCs, nor even to DCs. Several cases of state failure have occurred in non-LDCs, especially in South-East Europe, the Middle East and Central Asia, the former Yugoslavia being one of the most prominent examples. However, a substantial proportion of the countries which have suffered regress are in the LDC group, and many of the worst cases of state failure have occurred in LDCs. There have been complex humanitarian emergencies in several of these LDCs, and they have attracted widespread international concern in recent years. The concepts of regress, state failure and complex emergencies, and the relationship between them, are examined in box 11.

State failure has profound implications not just for the governments and citizens of the countries involved but also for the role of donors and international agencies concerned with promoting development. In many cases, the economic and social development strategies pursued by the international agencies and bi-

Box 11: Economic regress, state failure and complex emergencies: Concepts and definitions

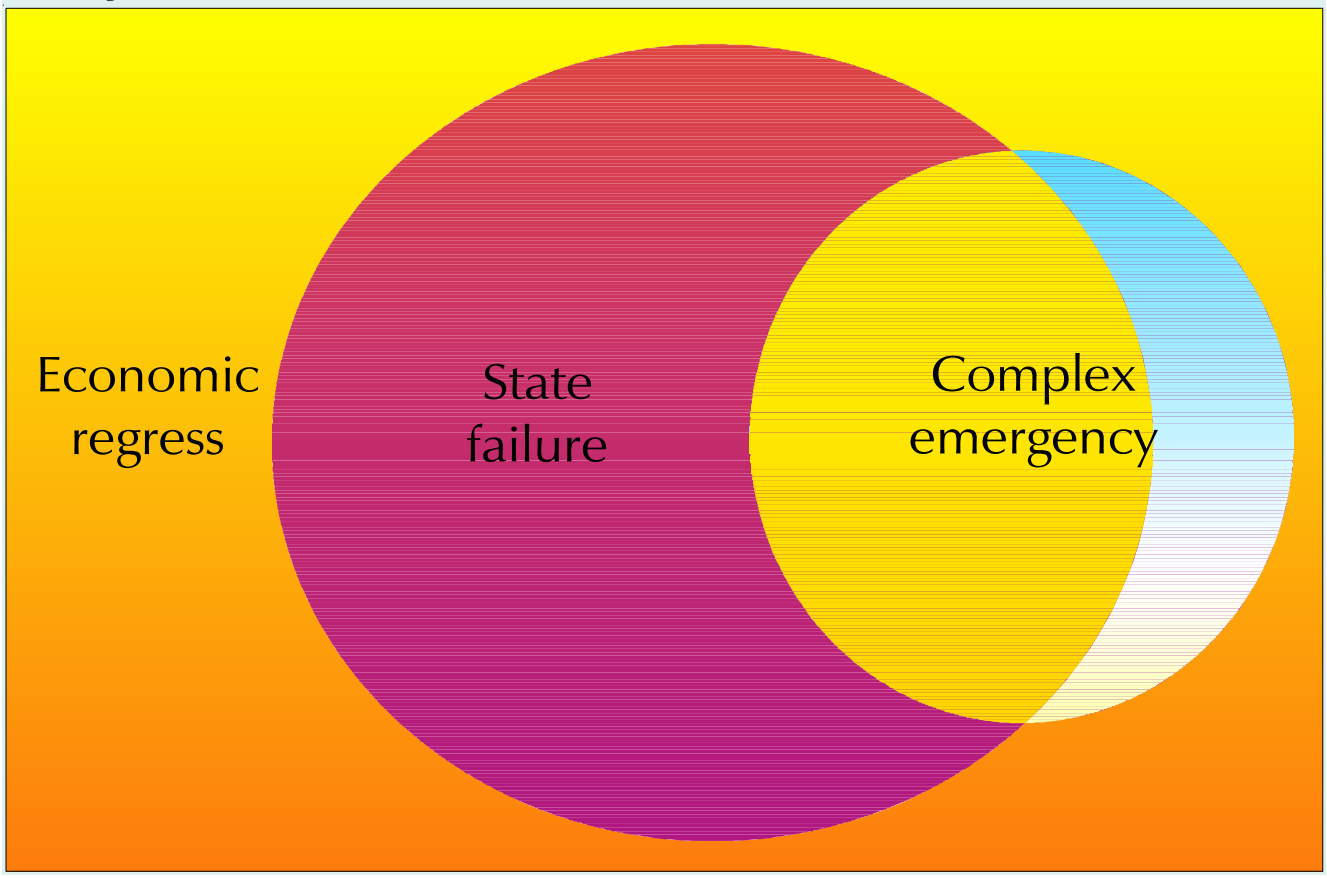
Three separate concepts can help to clarify the issues discussed in this chapter: regress, state failure and complex emergencies.

"Regress" is a term used to describe a marked deterioration in one or more major indicators of economic or social welfare, such as per capita income, infant mortality, educational enrolment, and deaths due to internal conflict, over a given medium- to long-term period such as the last decade. It is a broad concept which encompasses a wide range of countries experiencing varying degrees of regress: at one end of the scale is a country which has recorded a decline in only one social or economic indicator, while at the other end is a country which has experienced substantial falls in all major indicators. A large number of LDCs display aspects of regress; that is, at least one major indicator has deteriorated over the course of the last decade.

The term "state failure" is used to define a condition in which the State's capacity to provide a range of services whose nature is that of "public goods" has been severely impaired. These include the maintenance of law and order, the extension of state authority to all areas of its territory, the maintenance of basic structures of public administration, the collection of taxes and their use for legitimate public expenditures (rather than for private expropriation), and the provision of essential public services such as basic education and health services, maintenance of roads, and provision of water and sewerage in urban areas. Like regress, this is a concept that can accommodate varying degrees of decline. It is not synonymous with regress, but the two concepts are related, with causality running in both directions. Economies in regress encompass all cases of state failure (i.e. all cases of state failure display important aspects of regress), but the reverse is not always the case.

Complex emergencies are humanitarian crises (e.g. famine, mass refugee movements) caused primarily by internal conflicts "resulting from sectarian or predatory indigenous responses to socioeconomic stress or marginalisation" (Duffield, 1994b, p. 38); and they have the potential to "erode or destroy the cultural, civil, and political and economic integrity of established societies" (*ibid.*). Complex emergencies are a particularly acute form of regress. They generally involve some form of state failure, and often state collapse, as in Somalia. But state failure is not a precondition for complex emergencies. Some of these have occurred in countries in which a strong centralized State retains control over all but a relatively small portion of its territory. In such cases, the emergency often arises not because of state weakness *per se,* but as a result of deliberate actions by the State against civilians it perceives as its opponents, e.g. the destruction of crops.

The chart below illustrates the relationship between the concepts of regress, state failure and complex emergencies.



lateral donors in partnership with governments have been rendered virtually irrelevant because of the debilitation of state capacities and civil strife. In several countries, the provision of emergency relief to refugees, and attempts – not always very successful – at peace-keeping, have replaced longer-term development efforts.

The impact of regress, state failure and internal conflict is not confined to small peripheral economies but frequently spills over international borders, imposing substantial costs on neighbours and the international community. These costs include the expense of humanitarian assistance, the disruption of trade, the spillover of violence and crime from conflict-afflicted countries, and the adverse impact which problems in a specific country may have on perceptions of, and confidence in, an entire region, particularly among investors. In some cases, what starts as internal conflict may threaten peace and stability throughout entire regions, as the conflicts in Central Africa demonstrate.

Regress cannot be ignored by the international community. Failure to take effective action to tackle it will be very costly.

The objective of this chapter is to examine the implications of economic regress and state failure for the LDCs concerned. It discusses how the international community can help LDCs to prevent state collapse, and where the processes of regress and state collapse are already well advanced, to halt them and rebuild functioning polities and economies. Its contention is that the problems of economic and social regress in the LDCs (and among non-LDCs) should not be ignored by the international community. Failure to take effective measures to tackle these problems will prove very costly. But a change in the focus of development assistance in many of the regressed economies is required, with greater emphasis on monitoring institutional developments and, where necessary, rebuilding and strengthening the institutional structures of the State and civil society, which form the social and institutional framework within which economic development can take place.

B. Measuring economic and social regress

The term "economies in regress" is used to denote countries which have suffered a chronic decline or precipitous collapse in socio-economic conditions. In both cases, the living standards and conditions of the majority, or a large part, of the population have fallen substantially.[2] Socio-economic conditions include not just the level of GDP per capita but also social indicators such as health status, access to education, nutrition, the security of people's lives and property, and the displacement of people from their homes and livelihoods by war. "Economic regress" is not used to refer to countries which are suffering a short-term cyclical recession in which output is temporarily depressed, even if such a recession is severe. The term "regress" is used to denote a phenomenon which has much deeper structural characteristics.

The term "economies in regress" is used to denote countries which have suffered a chronic decline or precipitous collapse in socio-economic conditions.

Measuring regress with any degree of accuracy is problematic. In many countries afflicted by regress, government statistical services, along with other government functions, have collapsed. Even where the statistical apparatus still functions, data collection is usually impossible in areas experiencing civil strife. Moreover, one of the features of economic regress is that an increasing share of economic activity takes place in the informal sector, which goes unrecorded in official statistics. As a consequence, either economic and social statistics are unavailable, or those that are available are of doubtful veracity.[3] Nevertheless, the available data (or lack of it) do convey some useful information, and can provide a guide to which economies are most severely affected.

Five separate indicators are used to evaluate trends in economic and social conditions in LDCs during the last decade: GDP per capita, daily calorie supply, infant mortality rates, gross primary school enrolment ratios and conflict-related mortality. These indicators have been selected because they provide a guide to trends in variables which are basic to economic performance, human health and welfare, the security of people's lives, and the ability of government to provide essential social and developmental services. They are, to some extent, positively correlated, e.g. trends in an indicator such as per capita income are likely to be related to per capita calorie supplies. Nonetheless, using five separate indicators makes it possible to conduct a broader analysis of regress than would be the case if only one or two indicators were used.

A wide range of LDCs have suffered some form of regression in terms of economic or social indicators over the last decade.

Data are not presented here in order to identify a definitive list of "economies in regress". Such a list would have little empirical relevance since different LDCs display different manifestations of regress, to greater or lesser degrees (see box 11). What the data do indicate is that a wide range of LDCs have suffered some form of regression in terms of economic or social indicators over the last decade. While there are some obvious cases of extreme regress (Afghanistan, Burundi, the Democratic Republic of the Congo, Liberia, Rwanda and Somalia, for example), there are many more countries in which the deterioration of social and economic conditions has not reached such disastrous proportions but which nevertheless should be a matter of urgent concern for the international community. These include countries such as Haiti, Madagascar, Niger, Sierra Leone, Sudan and Togo.

Per capita income

The extent of economic regress in LDCs is evident from table 11, which sets out per capita GDP in 1980 and 1994 in constant 1994 dollars. Per capita GDP fell in 25 LDCs during this period. In 22 of them, the fall exceeded 10 per cent, and 12 had falls of over 20 per cent. The economic regress of these LDCs was in sharp contrast to the general trend among DCs, which recorded an average per capita GDP increase of 19 per cent between 1980 and 1994.

Per capita food availability

Nutritional levels worsened in many LDCs, with substantial falls in per capita food availability recorded between the mid-1980s and the mid-1990s. In nine LDCs, daily per capita calorie supplies fell by more than 200 calories. In a further six, they fell by between 100 and 200 calories, and seven more LDCs had falls of up to 100 calories per day. Consequently, per capita calorie supplies fell in almost half of the LDCs. The worst-affected countries were Liberia, with a fall of more than 750 calories per person per day, Rwanda, with a fall of more than 400 calories, Afghanistan with a fall of almost 400 calories, and Haiti, Madagascar and Somalia, with falls of more than 300 calories (see table 12).

Infant mortality

Table 13 presents data on infant mortality rates (IMRs) in LDCs in 1985 and 1995. As a result of improvements in primary health care, such as vaccinations and the application of oral rehydration therapies, as well as improvements in sanitation, most DCs have experienced a steady decline in IMRs over the last 30 years: increased IMRs are relatively uncommon even among DCs which have made little progress in increasing income per capita (Sen, 1994). In eight of the LDCs, however, IMRs increased between 1985 and 1995, and in a further two there was virtual stagnation (IMRs fell by less than 10 per 1,000 live births). A worsening of IMRs was not confined to LDCs suffering major civil strife: four of the eight LDCs with increased IMRs were free of internal conflicts during this period.

TABLE 11: GDP PER CAPITA IN SELECTED LDCs

Country	Per capita GDP, 1994 dollars 1980	1994	% change
Democratic Republic of the Congo	374	205	-45
Liberia	836	479	-43
Niger	291	174	-40
Haiti	391	234	-40
Zambia	548	379	-31
Madagascar	277	197	-29
Togo	332	243	-27
Guinea	736	539	-27
Sao Tome and Principe	296	223	-25
Malawi	157	120	-24
Sudan	458	355	-22
Afghanistan	664	522	-21
Kiribati	552	446	-19
Comoros	408	335	-18
Central African Republic	369	303	-18
Equatorial Guinea	542	458	-15
Rwanda	234	198	-15
Ethiopia	110	94	-15
Myanmar	1 579	1 372	-13
Mali	206	179	-13
Sierra Leone	215	189	-12
Angola	524	468	-11
Somalia	145	133	-8
Mauritania	504	463	-8
Benin	302	290	-4
Samoa	862	899	4
Burundi	136	142	4
Vanuatu	1 061	1 122	6
United Republic of Tanzania	79	85	8
Mozambique	86	93	8
Burkina Faso	254	288	13
Uganda	174	220	26
Lao People's Democratic Republic	246	324	32
Lesotho	329	440	34
Nepal	139	186	34
Bangladesh	162	220	36
Guinea-Bissau	170	231	36
Solomon Islands	483	692	43
Chad	100	147	47
Cape Verde	579	876	51
Bhutan	92	172	87
Maldives	410	1 086	165
Cambodia	..	235	..
Djibouti	..	835	..
Eritrea	..	146	..
Gambia	..	350	..
Tuvalu	..	2 136	..
Yemen	..	335	..
All LDCs	**352**	**319**	**-9**
All developing countries	**828**	**984**	**19**

Source: UNCTAD, 1996.

TABLE 12: PER CAPITA FOOD AVAILABILITY IN SELECTED LDCS

Country	Calories per capita per day		
	Mean 1984-1985	Mean 1993-1994	% change
Liberia	2 452	1 700	-30.7
Rwanda	2 215	1 787	-19.3
Afghanistan	2 069	1 682	-18.7
Somalia	1 869	1 545	-17.3
Haiti	2 020	1 717	-15.0
Madagascar	2 389	2 046	-14.4
Angola	1 970	1 715	-12.9
United Republic of Tanzania	2 301	2 040	-11.3
Solomon Islands	2 229	2 013	-9.7
Burundi	1 919	1 755	-8.5
Mozambique	1 852	1 696	-8.4
Malawi	2 113	1 941	-8.1
Togo	2 189	2 052	-6.3
Zambia	2 078	1 962	-5.6
Gambia	2 351	2 223	-5.4
Democratic Republic of the Congo	2 086	1 999	-4.2
Sierra Leone	1 940	1 864	-3.9
Lesotho	2 253	2 186	-3.0
Lao People's Democratic Republic	2 170	2 108	-2.9
Bangladesh	1 992	1 982	-0.5
Myanmar	2 651	2 641	-0.4
Vanuatu	2 715	2 705	-0.4
Comoros	1 732	1 732	0.0
Central African Republic	1 955	1 972	0.9
Sao Tome and Principe	2 098	2 139	2.0
Djibouti	1 881	1 922	2.2
Niger	2 104	2 150	2.2
Cambodia	1 727	1 786	3.4
Uganda	2 090	2 165	3.6
Yemen	2 044	2 121	3.8
Mali	1 909	1 990	4.2
Guinea	2 252	2 363	4.9
Cape Verde	2 898	3 044	5.0
Kiribati	2 495	2 645	6.0
Mauritania	2 408	2 572	6.8
Nepal	2 000	2 139	6.9
Maldives	2 216	2 392	7.9
Sudan	2 108	2 308	9.5
Guinea-Bissau	2 325	2 552	9.8
Benin	2 090	2 329	11.4
Chad	1 502	1 844	22.8
Burkina Faso	1 734	2 451	41.3
Average LDCs	**2 099**	**2 054**	**-2.1**
All developing countries	**2 429**	**2 560**	**5.4**

Source: UNCTAD secretariat, on the basis of FAO and World Bank data.

PRIMARY SCHOOL ENROLMENT

Primary school enrolment ratios provide an indicator of the State's capacity to provide an essential social service with significant implications for long-term development prospects. Around one-third of the LDCs suffered regress in this indicator of basic educational attainment. Gross primary school enrolment ratios fell by more than five percentage points in 11 LDCs between the mid-1980s and

Table 13: Infant mortality rates in selected LDCs

Country	Infant mortality rate (per 1,000 live births)		
	1985	1995	Difference
Niger	140	191	51
Myanmar	66	105	39
Madagascar	63	100	37
Zambia	84	114	30
Angola	143	170	27
Liberia	127	144	17
Democratic Republic of the Congo	103	119	16
Mozambique	147	158	11
Uganda	108	111	3
Lesotho	106	105	-1
Guinea-Bissau	138	134	-4
Sierra Leone	175	164	-11
United Republic of Tanzania	111	100	-11
Bhutan	134	122	-12
Burundi	119	106	-13
Togo	98	80	-18
Malawi	157	138	-19
Mauritania	132	112	-20
Afghanistan	189	165	-24
Guinea	153	128	-25
Lao People's Democratic Republic	116	91	-25
Somalia	152	125	-27
Benin	115	85	-30
Central African Republic	137	106	-31
Cambodia	145	110	-35
Bangladesh	124	85	-39
Sudan	112	69	-43
Chad	138	94	-44
Rwanda	127	80	-47
Haiti	123	71	-52
Yemen	128	76	-52
Nepal	134	81	-53
Mali	175	117	-58
Burkina Faso	145	86	-59

Source: UNICEF, 1986, 1997.

the mid-1990s (see table 14). A further five LDCs registered declines of less than five percentage points over this period. The worst-affected LDCs were Haiti, in which the enrolment ratio fell by 41 percentage points, and Madagascar, with a fall of 39 percentage points. Liberia and Mozambique both suffered declines in excess of 20 percentage points, and Angola, the Democratic Republic of the Congo and Zambia registered reductions of between 15 and 20 percentage points.

Deaths due to internal conflicts

There were major internal conflicts in more than a third of the LDCs during the 1980s or 1990s (see section D below). With only a few exceptions, such as Mozambique and Cambodia, these conflicts have not been resolved. They have had, and continue to have, devastating human consequences. Table 15 lists the approximate numbers of deaths directly or indirectly caused by war in those LDCs which have experienced major civil conflicts. Fourteen LDCs have suffered war-related deaths since the start of the 1980s, amounting to at least 0.5

TABLE 14: PRIMARY SCHOOL ENROLMENT RATIOS IN SELECTED LDCS

Country	Gross primary school enrolment ratio (% of relevant age group) Rate (1984-1985)	Rate (1993-1994)	Difference
Haiti	97	56[c]	-41
Madagascar	112	73	-39
Liberia	67[a]	40[e]	-27
Mozambique	86	65[f]	-21
Angola	107	88[g]	-19
Dem. Republic of the Congo	86	68	-18
Zambia	100	82	-18
Lesotho	110	99	-11
Maldives	145[a]	134	-11
Somalia	19[a]	11[d]	-8
Ethiopia	35	27	-8
Comoros	82	75	-7
United Republic of Tanzania	75	70	-5
Central African Republic	75	71[h]	-4
Lao People's Dem. Republic	111	107	-4
Djibouti	40	38	-2
Sierra Leone	52[a]	51	-1
Guinea-Bissau	61	60[b]	-1
Gambia	68	67[i]	-1
Myanmar	98	100	2
Benin	68	72	4
Niger	26	30	4
Cambodia	113[c]	118	5
Sudan	50	55	5
Vanuatu	100	106[i]	6
Togo	93	102	9
Mali	23	32	9
Burkina Faso	29	39	10
Chad	43	55	12
Guinea	34	46	12
Equatorial Guinea	135[a]	149	14
Cape Verde	117	131	14
Rwanda	63	77[g]	14
Bangladesh	64	79[c]	15
Burundi	52	69	17
Uganda	50[a]	67	17
Solomon Islands	79	97	18
Eritrea	28[b]	49	21
Mauritania	48	74	26
Afghanistan	20	48[f]	28
Nepal	75	109	34
Malawi	60	120	60

Source: UNESCO, 1995, 1996.

a 1980. *b* 1988. *c* 1990. *d* 1985. *e* 1984.
f 1995. *g* 1991. *h* 1989. *i* 1992.

per cent of their respective 1990 populations. Two LDCs – Afghanistan and Mozambique – each had more than one million deaths related to war or civil strife, while more than half a million lives were lost in Ethiopia, Rwanda and Sudan. Deaths in Afghanistan, Liberia, Mozambique and Rwanda amounted to more than 5 per cent of their respective 1990 populations.

TABLE 15: DEATHS DUE TO CIVIL WARS IN LDCS SINCE 1980

Country	Deaths (1,000s)	% of 1990 population
Rwanda	750	9.6
Afghanistan	1 300	6.9
Liberia	200	6.9
Mozambique	1 050	6.8
Somalia	400	4.4
Angola	341	3.2
Burundi	200	3.2
Sudan	500	1.8
Uganda	308	1.5
Ethiopia	609	1.1
Lao, PDR	40	0.9
Sierra Leone	40	0.9
Cambodia	65	0.7
Chad	35	0.6

Sources: Stewart, Humphreys and Lee, 1997, p. 18; International Federation of Red Cross and Red Crescent Societies, 1995; Reno, 1996, p. 1.

C. The crisis of governance

Economies in regress are not homogeneous. Regress encompasses a wide variety of characteristics, and similarly the causes also vary between countries. In some cases, regress has been caused primarily by external intervention (e.g. Afghanistan), while in others the causes have been largely internal (e.g. Somalia). The scale of regress also differs. At one end of the scale are countries in which all state structures and virtually all of the formal sector economy have been destroyed by civil war. At the other end are countries which remain peaceful and orderly and in which the State still maintains an administrative apparatus, but because of the cumulative effects of the deterioration of the economy and the State's resource base, the quality and quantity of state-provided public services have declined markedly. In between are countries in varying stages of disintegration: the State still functions but lacks the resources to provide more than a few rudimentary services, or cannot control all its territory. Since there are major differences between individual regressed economies, one should be cautious about making generalizations. Nevertheless, a number of common features do appear to characterize most of these countries, a severe crisis of governance being one of the most important. This crisis of governance has several features, which are explored below.

DETERIORATING PROVISION OF PUBLIC SERVICES

A severe crisis of governance is a characteristic of most regressed economies.

In many LDCs the capacity of the State to provide essential public services has deteriorated markedly, reducing both the scale and the quality of public services such as education, health and policing. Capacities to formulate and implement government policies have been impaired. Physical infrastructure, such as road networks and power and telecommunications systems, has deteriorated because essential maintenance has been neglected and little new investment has been undertaken. In the Democratic Republic of the Congo, for example, large parts of the country are inaccessible from the capital city by road because of the serious deterioration in the road system.

Public servants are paid so little in many LDCs that they either neglect their official duties in order to undertake second jobs or abuse their position to extract bribes from the public (Harvey, 1996, p. 135). Low wages in the police and army further fuel discontent and exacerbate political instability. Disgruntled soldiers have recently staged insurrections in several LDCs against civilian governments, for example in the Central African Republic, where there were three insurrections in 1996. Looting of businesses and the public by the military became a regular occurrence in the Democratic Republic of the Congo (Emizet, 1996, pp. 16-17). Many armies in Africa have become involved in some form of private business to supplement the incomes of officers and troops (de Waal, 1996, p. 8).

Problems related to the degradation of state capacities to provide public services afflict a large number of LDCs to some degree. They have arisen for several reasons, foremost among which are severe fiscal constraints. The worst affected LDCs have experienced a sharp decline in the real value of government

revenues because of economic crisis, declining terms of trade (and hence reduced real values of trade revenues) and a shrinking formal-sector tax base. In addition, state resources have been expropriated for private use in some countries. Declines in revenue have in turn led to a contraction in the real value of government spending on essential services and in sharp falls in real wages for public employees. In many LDCs, public expenditure on health services is less than 2 per cent of GDP and public expenditures on education less than 3 per cent of GDP: in the Democratic Republic of the Congo, Somalia and Sudan, health expenditures in 1990 were less than 1 per cent of GDP (see tables 16 and 17). The public sector has also been overextended in many LDCs, with the result that scarce fiscal and human resources have been spread too thinly. Moreover, in many LDCs, large numbers of trained professionals, such as doctors, on whom the public sector services depend, have emigrated because the salaries at home are so low.

Table 16: Expenditure on health in selected LDCs

Country	Health expenditure (% 1990 GDP)
Sudan	0.5
Dem. Rep. of Congo	0.8
Somalia	0.9
Lao, PDR	1.0
Madagascar	1.3
Bangladesh	1.4
Yemen	1.5
Uganda	1.6
Sierra Leone	1.7
Haiti	3.2
Average LDCs	**1.8**
Average DCs	**2.0**

Source: UNDP, 1996, pp. 170-171.

The private sector and civil society

In many of the economies in regress, the growth of the private sector, and therefore of the economy, has been retarded because governments have not established the type of stable legal and economic framework or the rational and efficient system of bureaucracy necessary for markets to flourish and for private investors to make long-term plans (Callaghy, 1988). In very few LDCs has the State played a "developmentalist" role, along the lines of many of the Asian newly industrialized countries, providing support for the development of an efficient private sector capable of competing on world markets. Instead, governments have often adopted a predatory stance towards the private sector, extracting resources from it to finance political patronage, through excessive rates of taxation (especially as regards exports) and controls on credit or foreign exchange. Some of the most productive sectors of LDC economies, especially peasant export crop agriculture, have been ruined as a result. In addition, key sectors of the formal economy, including mining, manufacturing, banking and other industries, were nationalized in many LDCs, with detrimental effects on their efficiency and the wider economy.

In some countries, large sections of the economy have disengaged from the State in order to escape its depredations, conducting economic transactions in the informal sector and in parallel markets, rather than trading through formal channels (Chazan, 1988). Although many LDCs have adopted pro-market economic reforms in recent years, the legacy of policies hostile to the private sector is a deterrent to the revival of private investment that these countries need. Doubts about the stability of governments and their ability to sustain reforms also deter private investment.

Economic decline has fed back into state collapse. Falling output, and the withdrawal of economic activity into parallel markets, have reduced the revenues available to the State and thus its ability to provide services and pay its employees. Moreover, the economic crisis, combined with the State's diminishing ability to provide political patronage and meet popular aspirations to services and development projects, fuels discontent among the population and support for insurrection against the government.

In some countries, state depredation has also damaged civil society as well as the private sector economy. This has happened in a variety of ways. The growth of independent civic groups and the institutions of civil society, such as trade unions, professional associations, an independent press, political parties and NGOs, has been prevented or retarded by state repression: those civic groups

which have survived have been incorporated into the ruling party's state apparatus, sometimes with divisive effects. The severity of the economic crisis and the emigration of professionals have also impaired civil society. The fragmentation of society and its vulnerability to shocks have been increased by the weakening of the institutional structures of civil society. Economic regress is best understood as a process in which the deterioration of state capacities, the weakening of civil society and economic decline interact to reinforce one another, sustaining a downward spiral of economic, social and political capacities.

Political instability

In many cases, state capacities have been weakened by political instability, which has often been exacerbated by lack of democratic political structures. Most cases of severe state failure have occurred in one-party States or States ruled by the military for prolonged periods. This problem is compounded not only by the clientelist nature of politics, which leads to widespread corruption and the monopolization of scarce economic resources by the political constituents of incumbent governments, but also by acute ethnic divisions, which are often reflected in political organization (i.e. parties or factions within parties are organized along tribal lines).

In many countries the institutional mechanisms for political negotiation and mediation among competing groups are lacking, so that those excluded from power have resorted to force (Allen, 1995). In these circumstances, political instability is endemic: incumbent governments are insecure and weak, changing frequently, often through military coups. In more than half of the LDCs, governments have been overthrown by such coups. Even in the 1990s, when most DCs adopted some form of democratic government, the military has refused to relinquish power in several LDCs and has seized power from civilians in several others (e.g. Burundi, Gambia, Niger and Sierra Leone).

Political instability has serious economic and social costs. It is a major deterrent to private investment. Unstable governments are more likely to favour policies which yield short-term political benefits (such as increased public spending) over policies with longer-term economic benefits (such as prudent fiscal management). The exclusion of important constituencies from access to the political system, and the inequalities in resource allocation that have resulted from this, have been one of the causes of the civil wars which have afflicted many of the LDCs.

Table 17: Expenditure on education in selected LDCs

Country	Education expenditure (% 1992 GDP)
Sierra Leone	1.4
Equatorial Guinea	1.8
Haiti	1.8
Uganda	2.0
Bangladesh	2.3
Lao, PDR	2.3
Average LDCs	**3.0**
Average DCs	**3.9**

Source: UNDP, 1996, pp. 170-171.

D. Internal conflicts

The worst manifestation of the crisis of governance in LDCs is civil war, or what is more appropriately termed "internal conflict". Internal conflicts have become more frequent since the 1960s and have occurred predominantly in low-income countries (Stewart, Humphreys and Lee, 1997, pp. 11-15). Over one-third of the countries in the LDC group have experienced some form of violent civil strife since the beginning of the 1980s. Some of these conflicts have been protracted, having lasted for more than a decade. In a number of LDCs, governments have lost control of large parts of the national territory to insurgent groups. In the worst affected countries, such as Afghanistan, Liberia and Somalia, economic, social and administrative structures have been torn apart by civil war, with warlords competing for control of territory and resources. Many of these conflicts have also had serious consequences for security, stability and economic development in neighbouring countries (see box 12).

Over one-third of LDCs have experienced some form of violent civil strife since the beginning of the 1980s.

Civil conflicts have had devastating human costs, with complex humanitarian emergencies occurring in several LDCs. Civilians have been killed in large numbers, directly as a result of attacks by government soldiers or rebels, or as the result of famines caused by the conflicts. In some countries the civilian population has been the deliberate target of atrocities by governments and/or insurgent groups. Tables 15 and 18 present some data on civil-war-related deaths and refugees in LDCs. Figures on war deaths are often not very accurate: participants sometimes have incentives to distort the figures for propaganda purposes (Väyrynen, 1996, p. 20), but it is clear that the scale of mortality has been massive in many LDCs. As noted in section B above, 14 LDCs suffered war-related deaths amounting to more than 0.5 per cent of their respective 1990 populations during the 1980s and 1990s. Afghanistan, Angola, Ethiopia, Liberia, Mozambique, Rwanda, Somalia and Sudan were among the worst affected countries (table 15). At least six and a half million people have died as a result of internal conflicts in LDCs since the start of the 1980s. To these figures must be added the additional indirect mortality that has resulted from the collapse of essential social services, such as primary health care, as evidenced by the increased infant mortality rates in war-torn countries. Hundreds of thousands of civilians have also been crippled, mainly by landmines, in countries such as Afghanistan, Angola, Cambodia and Mozambique. Women are often hardest hit by internal conflicts (see box 13).

Box 12: The regional dimensions of conflict

It is rare for the effects of conflict to be confined within the borders of any one country. Of 12 cases of conflict involving LDCs, only two were "contained". The remaining 10 instances had significant effects on neighbouring States. In the worst case, internal conflict in one LDC (Liberia) precipitated conflict in another (Sierra Leone), and though regional effects are rarely this extreme, they are frequently important. The most significant regional impacts associated with regress in LDCs tend to fall into three broad categories: refugee-related, economic and political.

The number of refugees worldwide increased from 17 million in 1991 to 27 million in 1995 (or one person in 200). The majority of them, nearly 10 million, are in Africa. At the very least, refugees impose a social, economic, political and environmental cost on neighbouring States (in addition to experiencing suffering themselves). In worse cases, where refugee populations include fleeing combatants, there may be an increase in political instability not only within refugee camps but also within the host country, as in the eastern part of the Democratic Republic of the Congo. Afghanistan and neighbouring Tajikistan have both suffered from a destabilizing two-way flow of refugees.

There are frequently **economic** problems associated with the regress of a State within a region. The most pertinent example relates to the consequences of internal conflict in Mozambique, which is a key geographical access point and trade route for many Southern African Development Community (SADC) members. As a result of the instability there, goods travelling to and from Botswana, Malawi, Zambia and Zimbabwe had to be re-routed through South Africa, at significant supplementary cost. It should be noted that Malawi and Zambia are also LDCs, and were not well placed to be able to afford these extra charges.

There may, however, be grounds for hope. In the case of Liberia, the Economic Community of West African States (ECOWAS) dispatched a humanitarian task force to restore order. Although quite controversial at its inception, this mission has achieved some degree of success. The fact that the notoriously anarchic Liberian warring factions have disbanded, and that elections were due to be held in July 1997, is a telling example of what the regional peace effort has been able to achieve. In this vein, the United States Government has recently proposed the creation of an "African Crisis Response Force" (ACRF) that would operate under United Nations authority with troops from African armies, but with most of the financing and training coming from the West. This force, specially trained and prepared for humanitarian interventions, would not be organized into a separate standing army but could be called together quickly in emergencies. Although there is some scepticism among African countries stemming from the history of developed countries' less than altruistic interventions, there has been no outright rejection of the plan. In fact, seven potential African troop contributors have already been identified for the mission, and as long as the force is treated as a complement to political engagement rather than as a substitute for it, and is driven by African priorities, the ACRF could be a ground-breaking initiative to counter regress situations in Africa.

Sources: "An African Peace Force" (editorial), *New York Times*, 1 November 1996; M. Lowenkopf, "Liberia: Putting the State back together", in Zartman (ed.), 1995, pp. 91-108.

Table 18: Refugees and internally displaced persons in LDCs, 1995

Country	Refugees (1,000s)	Internally displaced persons (1,000s)	Total (1,000s)	% of total population
Liberia	725	1 000	1 725	56.7
Sierra Leone	363	1 000	1 363	30.2
Rwanda	1 545	500	2 045	25.7
Angola	313	1 500	1 813	16.4
Afghanistan	2 328	500	2 828	14.1
Somalia	480	300	780	8.4
Burundi	290	216	506	7.9
Sudan	448	1 700	2 148	7.6
Mozambique	97	500	597	3.7
Myanmar	160	750	910	2.0
Ethiopia	500	111	611	1.1

Source: Nafziger, 1996 p. 3.

Civilians have also lost property to the depredations of armies and insurgents. Expropriation of civilians' assets has often been one of the main objectives of the belligerents in some of these conflicts. The pillaging of assets, such as cattle, has led directly to famine among vulnerable groups, as in Somalia and Sudan. The expropriation of food aid by combatants, and its denial to civilians made destitute by civil war, have been a frequently used tactic in internal conflicts (Duffield, 1994a).

Huge numbers of people have been driven from their homes and deprived of their means of livelihood by hostilities in LDCs. The civil wars in Afghanistan, Rwanda and Sudan have each displaced more than two million people from their homes. More than half the population of Liberia, and more than one-quarter of the population of both Rwanda and Sierra Leone, were either internally displaced or living abroad as refugees in 1995 (table 18). Most of the refugees and internally displaced live in dire poverty. In addition to the human cost borne by the refugees themselves, refugee movements have imposed a large economic burden on the host countries, often neighbouring LDCs such as the Democratic Republic of the Congo, Malawi, Uganda and the United Republic of Tanzania.

Huge numbers of civilians have been driven from their homes and deprived of their means of livelihood by hostilities in LDCs.

As well as inflicting appalling human costs, civil conflicts have severely retarded economic development. The economic performance of countries affected by civil war is markedly worse than that of peaceful countries. In a sample of 74 DCs ranked according to GNP per capita, 35 war-torn DCs moved down the ranking by more than three points on average between 1970 and 1990. The impact of civil war was even more pronounced for low-income war-torn countries: the average rank of 16 such countries fell by seven points in this period (Stewart, Humphreys and Lee, 1997, pp. 16-17). The magnitude of war-induced economic collapse is huge in many countries. The civil war in Liberia reduced that country's GDP by more than 75 per cent between 1989 and 1993, while the conflict in neighbouring Sierra Leone caused GDP to decline by a half between 1991 and 1993 (Reno, 1996, p. 1). The costs of the conflicts in Mozambique and Sudan are examined in box 14.

The mechanisms by which internal conflicts impact on the economy vary depending on the nature of the conflict. In some countries, or regions of countries, virtually the entire structure of the formal economy has ceased to function. Wars

TABLE 19: MILITARY EXPENDITURE IN LDCS

Country	Defence expenditure (% 1994 GDP)
Angola	8.7
Lao, PDR	7.9
Rwanda	7.7
Mozambique	7.1
Djibouti	6.2
Yemen	5.2
Sierra Leone	4.4
Gambia	3.7
Sudan	3.5
Tanzania, United Rep.	3.5
Guinea-Bissau	3.3
Lesotho	3.2
Myanmar	3.1
Burundi	3.0
Mali	3.0
All LDCs	**2.9**

Source: UNDP, 1996, pp. 174-175.

may disrupt strategic industries, such as the main export-earning industries, with knock-on effects in other sectors of the economy. Agricultural production declines when farmers are driven from their land, when transport and marketing systems are disrupted, or when productive assets (such as cattle) are destroyed or looted by combatants. In some countries, agricultural crops have been deliberately destroyed by government forces in order to deny food to rebels. Wars almost invariably deter long-term investment by the private sector, because of the threat they pose to the security of assets and to the ability to conduct normal commercial activities. Social services are often severely disrupted: in Mozambique, the rebel movement Renamo attacked health posts and schools established by the Frelimo Government. Military expenditure often consumes a large share of government budgets, crowding out expenditures on more productive services such as health, education and infrastructure. Government military expenditure exceeded 5 per cent of GDP in several LDCs in the 1990s (see table 19).

Hyperinflation is a common development during wars, caused mainly by governments' attempts to maintain or increase public expenditures in the face of declining revenues and a collapse in public confidence in the domestic currency, and hence a rise in the speed of its circulation. Acute shortages of essential goods also fuel inflation during civil wars. The annual inflation rate exceeded 2,500 per cent in Angola in 1995, and was more than 100 per cent in Cambodia, Sierra Leone and Sudan in the early 1990s (IMF, 1996).

BOX 13: CONFLICT AND GENDER

Women suffer disproportionately from conflict and regress, and the international community cannot overlook the particular challenges facing them in the processes of reconstruction. Rwanda provides an example of this, albeit an extreme one – a country in which women will play a pivotal role in the success or failure of reconstruction, the female proportion of the population having been estimated to be as high as 70 per cent. This compares with a pre-conflict level of 51 per cent.

One of the most important features of conflict is an increase in the level of violence against women of all ages. This clearly has a lasting impact both physically and psychologically. The abortions which follow are frequently performed badly, owing to a lack of medical skill and equipment, and leave many women sterile. Furthermore, there is evidence to suggest that conflict is a vector of sexually transmitted diseases (STDs) such as HIV/AIDS, and that soldiers facilitate the spread of disease into rural areas. This will lead to large increases in infant mortality. Rwanda and Burundi already have severe HIV/AIDS problems, with 20 per cent of pregnant women and 50 per cent of STD clinic patients infected. In addition to these physical consequences, there are psychosocial effects which compound the trauma of sexual violence, among which the most widespread is depression.

More generally, regress tends to exacerbate existing gender inequalities. Since 1994, 500,000 women have been widowed in Rwanda (out of a total population of 7 million) and the majority of them have had great difficulty in retaining their property, since women cannot legally inherit land. The Rwandan Government has made some progress in removing obstacles to women's equality, but with 67 per cent of women illiterate, restitution of property is complicated still further. And despite a programme aimed at improving the psychosocial health of women, it is certain that the problems of a predominantly female population are far from over.

Sources: Women Anti-Discrimination Committee Press release WOM/896, 30th meeting, 1 February 1996; UNICEF, 1996; CIA, 1995; WHO (various reports).

Box 14: Estimating the economic and social costs of internal conflicts

Internal conflicts in LDCs have huge economic and social costs, but estimating these accurately is very difficult. The most obvious problem is the lack of reliable data. Conflict often makes the collecting of statistics impossible, and much economic activity reverts to the informal sector, where it is largely unrecorded. Where statistics do exist, they may be manipulated for propaganda purposes. A more fundamental problem is the lack of an actual counterfactual with which to compare a country afflicted by conflict; that is, we do not know what would have happened in any particular country had there been no war, and so we cannot readily attribute any observed change in economic or social conditions to the conflict *per se* rather than to other causes.

Despite these problems, researchers have attempted to estimate the costs of conflict in several countries, looking at trends in the economy, food production, health and education, infrastructure and so forth (Cranna, 1994). The conflicts in Mozambique and Sudan were included in this analysis.

The war in Mozambique has a long history, with the original Renamo (Resisténcia Nacional Mozambiçana) troops having formed when Mozambique became independent in 1974. The war began in earnest in 1980 and lasted for 12 years, during which time over 1 million people were killed. Between 1980 and 1994, GDP per capita fell by 50 per cent to the equivalent of $88, one of the lowest in the world. UNICEF estimated that by 1988 the civil war's costs to the economy were in excess of $15 billion, or four times GDP. Food production declined sharply because of the lack of security in the rural areas and the collapse of marketing and transport systems. Nearly 50 per cent of all rural health posts and schools were destroyed. The conflict also affected neighbouring countries, mainly through the disruption of transport links and the influx of refugees. SADC countries are estimated to have lost $300 million a year because of the disruption of transport routes alone (Vincent, 1994a, p. 89). SADC estimated the total cost of the conflict to its members to be at least $60 billion between 1980 and 1988 (*ibid.*, p. 97). During the period 1987-91, UNHCR spent $126 million on refugee programmes, a sum which excludes the cost of refugee resettlement (*ibid.*, p. 102).

The Sudanese conflict has been fought principally in the south of the country between government forces and southern-based rebel groups, mainly the Sudanese People's Liberation Army. Since 1983, when the conflict intensified, approximately 1.2 million people, mostly civilians, have died as a result of the fighting or war-related famine. Real GDP per capita fell from $458 in 1980 to $355 in 1992 (UNCTAD, 1996, p. A-3), but this figure masks much greater economic losses in the south of the country, where production and social systems have been devastated. Health expenditures in Sudan amount to only 0.5 per cent of GDP (UNDP, 1996, p. 171), and in the south of the country the health service has broken down. Life expectancy at birth in the south has fallen to 36 years. Education has suffered a similar collapse in that part of the country, with very few schools still operational (Vincent, 1994b, pp. 138-139).

The Sudanese conflict has also imposed costs on the international community, in particular through the international relief effort Operation Lifeline Sudan, which began in 1989. In 1993, humanitarian aid to Sudan from the United States alone amounted to $97.6 million.

E. Policy responses to economic and social regress

The main features of regress having been noted, the remainder of this chapter considers how LDCs and the international community should respond to the challenges posed by economic and social regress, state failure and internal conflict in LDCs. There are few obvious or easy solutions to these problems. Since their nature, extent and causes vary considerably between LDCs, policy responses should reflect the particular circumstances of individual countries. For example, the appropriate intervention in a country whose State has collapsed entirely is likely to differ from one in which a degree of state authority still exists. In the latter case, the appropriate response might be to strengthen existing state structures in order to prevent further deterioration and possible collapse. In the former case, structures would need to be rebuilt. Failure to understand such differences can lead to counterproductive interventions by the international community (Gros, 1996).

Although the form of external assistance will depend upon individual country circumstances, a common characteristic of regressed economies is the

erosion of their social institutions (social overhead capital). External assistance should therefore be directed towards strengthening these institutions, in particular state and civic institutions such as trade unions, professional associations, NGOs, and voluntary and self-help associations.

State collapse and internal conflicts not only impose enormous economic and social costs on the countries directly affected, but also have costs for neighbouring countries and for the wider international community.

The international community cannot afford to ignore the problem of regress, nor can it afford to delay effective intervention until regress has degenerated into a humanitarian crisis. State collapse and internal conflicts not only impose enormous economic and social costs on the countries directly affected, but also have costs for neighbouring countries and for the wider international community. The external costs of regress in LDCs have various causes: the adverse impact of refugee flows, increased crime and banditry in neighbouring countries, the disruption of transport and trade links, and the financial costs to international agencies and donors of providing humanitarian assistance. Instability and conflict in one country can have adverse effects on perceptions of stability throughout an entire region, undermining confidence among private investors. Some of the internal conflicts in LDCs have led to a huge increase in the production of narcotics, which are subsequently exported worldwide.

One example illustrates the magnitude of these costs to the international community. The Southern African Development Community estimated that the war in Mozambique cost its members at least $60 billion between 1980 and 1988 owing to, *inter alia*, increased transport costs, military expenditures and environmental damage caused by inflows of refugees (Vincent, 1994a, p. 97). These costs, which averaged $7.5 billion a year, can be contrasted with the average annual volume of official development assistance (foreign aid) of $1.5 billion provided to all six LDC members of SADC during 1980-1986 (UNCTAD, 1995, p. A-38). Hence the international community has a quantifiable self-interested reason to find effective ways of preventing and reversing regress in LDCs.

If the international community is to play a positive role in that connection in LDCs and in other countries, improved coordination among the major actors – bilateral donors, international agencies, etc. – is needed in order to ensure that their objectives are harmonized and that their interventions are complementary, not contradictory.

In the discussion which follows, a distinction is made between two broad typologies of regressed economies, around which the policy discussion is arranged.

First, we examine countries in which a functioning State still exists and which are free of serious internal conflicts, but which have experienced some degree of deterioration in state capacities (e.g. a fall in government revenue bases, and a decline in the availability and quality of essential public services). The challenge facing these countries is to reverse the causes of the deterioration of state capacities and to strengthen the State before further deterioration threatens more serious consequences, such as state collapse.

Second, we consider countries which are recovering from major internal conflicts and severe deterioration of State and social institutions. These are countries which already have a workable and viable political settlement for the conflict, to the extent that peaceful conditions have been restored, at least temporarily. The challenge facing them is one of economic and social reconstruction, the rebuilding of state structures and the establishment of a viable political economy to provide a basis for future development.

While the appropriate policy response will be determined by the particular circumstances of each country, the need for action by the international community is clear. Conventional development theory regards regress and conflict as temporary deviations from a path of "normal" development (Duffield, 1994b). The experience of many LDCs over the past two decades has shown, however, that regress is often a chronic rather than a temporary phenomenon, that it is not easily reversed, and that in most cases substantial outside assistance is required if countries are to recover from severe regress. Nonetheless, regress is not irreversible, even in countries where the process has been most advanced, such as those afflicted by acute and protracted civil wars. Civil wars can be brought to an end, legitimate government, capable of commanding a reasonable degree of popular consent and international support, can be restored, refugees and the internally displaced can return to their homes and livelihoods, the physical and social infrastructure can be rehabilitated, and economic recovery can begin. Two of the best examples of recovery from severe regress, state failure and internal conflicts are provided by Uganda and Mozambique. In Uganda recovery is well advanced, having begun in the mid-1980s. In Mozambique it is more recent and at this stage more fragile than in Uganda. Cambodia and Chad have also been able to end protracted conflicts, have begun to rebuild state structures and have achieved economic revival.

Regress is not irreversible, even in countries afflicted by acute and protracted civil wars.

F. Preventing state collapse

While in the majority of LDCs the State has not collapsed, in many of them it has been weakened by a combination of prolonged economic crisis and political factors such as patrimonialism, ethnic divisions, dictatorship and military rule. The challenge facing these countries is to prevent further deterioration of state capacities. The State needs to be strengthened in ways which reinforce its legitimacy among its citizens and enable it to meet their social and developmental aspirations, rather than serve as the coercive instrument of a particular section of society. Its capacity to negotiate between competing groups and interests in the polity in ways that contain and dissipate, rather than exacerbate, conflicts needs to be enhanced. The institutional base of the State should be expanded in ways which strengthen the linkages between the government and the people and encourage popular participation. Strengthening state capacities requires intervention by the international community at two levels: financial/technical and political.

The State needs to be strengthened in ways which reinforce its legitimacy among its citizens and enable it to meet their social and developmental aspirations, rather than serve as the instrument of a particular section of society.

The international community should provide financial and technical assistance to governments to improve state capacities in key areas such as maintaining the security of life and property, the provision of "public goods", the establishment of a legal and economic framework in which private sector business can flourish, and the creation of a sustainable revenue base to fund public expenditures. External assistance should be used to train personnel, provide public servants with the equipment they need to carry out their duties, and fund a salary structure which will be sufficiently attractive to enable governments to retain the services of qualified professionals. Recent research has shown that improving the conditions of public servants is one of the most efficient means of tackling state decline (World Bank, 1997).

Political factors have been at the root of state failure in many LDCs (Buckley, 1997). As a result, simply strengthening the State's technical and administrative capacities may not be sufficient to prevent state collapse: the political causes must also be addressed. The major political factor which has contributed to the

weakening of the State in LDCs has been the absence of a genuine and accountable democracy. Not only has this encouraged those groups excluded from government to resort to violence, but also it has shielded the government from popular pressure to use state resources more efficiently and equitably. Hence the international community should support efforts in LDCs to build inclusive democratic political structures.

For those excluded from patronage networks, mounting a challenge for control of the State is often the only alternative to economic marginalization or emigration.

Patrimonialism, which has characterized politics in a number of LDCs, has contributed to state failure in three ways. First, it erodes state capacities: public resources are expropriated by those in control of the State, for private gain (e.g. through embezzlement of public funds, failure to repay loans extended by public sector banks, the appointment of unqualified people to public sector posts). Second, it undermines the wider economy on which the State depends for revenue (e.g. when bank loans are diverted to the politically connected rather than to borrowers who could have used them more productively, or when roads are not maintained properly because the contract for their maintenance was given to a politically connected firm without the necessary expertise). Third, those who are excluded from patrimonial networks suffer economically: not only do they lack access to state resources (e.g. public sector jobs), but also attempts to earn incomes which are independent of the State (e.g. setting up private businesses) may be blocked if these are seen as a threat to those in power. For those excluded from patronage networks, mounting a challenge for control of the State is often the only alternative to economic marginalization or emigration.[4] A more democratic political process may serve to constrain the worst aspect of patrimonialism by forcing those in power to respond to the needs of a wider electorate rather than to narrow political constituents, especially if rural voters have significant electoral influence. Decentralization of government may also facilitate greater accountability of those who exercise power to the broader electorate. The development of democratic local government should be encouraged.

In addition to expanding popular participation in government, it is necessary to create, or strengthen, structures which can serve to enhance accountability and transparency in government, such as parliamentary oversight committees and the judiciary. Maintaining the rule of law through an independent judiciary, and ensuring that the government and its officials are accountable to the law, are essential if the State is to retain legitimacy among all sections of the population.

Civil society, which consists of organizations distinct from the State (NGOs, professional bodies, etc.) should also be helped to play an active role in providing checks and balances to prevent abuse of power by the State. It is imperative that the State nurture – and not impede – the development of civic institutions such as trade unions, professional bodies and NGOs.

G. Post-conflict reconstruction

For countries experiencing major internal conflict and associated complex humanitarian emergencies, the immediate objectives of the international community are likely to be twofold: first, the provision of humanitarian assistance, in conjunction with a cease-fire and the possible deployment of peace-keeping troops; and second, the negotiation of a viable political solution to the internal conflict which can ensure a lasting peace. Neither objective is easy: inappropriately conceived international intervention may actually exacerbate or prolong conflicts and worsen the humanitarian crisis. Once a viable resolution of the conflict has been put in place, the challenge facing LDCs and the international

community will be post-conflict social and economic reconstruction. This section examines the challenges posed by post-conflict reconstruction in countries which have been able to reach a settlement of their internal conflicts: Cambodia, Ethiopia, Mozambique and (if peace agreements hold) Angola and Liberia would fall into this category of LDCs.

In post-conflict reconstruction, the ultimate goals of the international community are to consolidate peace, help former combatants establish trust between each other, and rebuild and restructure the economy and society. The means to this end are capacity-building and "reorientation" – the former to augment and nurture indigenous capabilities, and the latter to direct them away from war-related ends towards peaceful goals. These two techniques are complementary. To rely exclusively on capacity-building without attending to the root economic and social dynamics of the conflict may simply result in more resources being poured into renewed conflict. Conversely, to acknowledge only the imperative need to redirect resources without strengthening local capacities is to underestimate the extent to which productive, administrative and distributional structures have been destroyed by conflict. This last point has particular consequences for the amount of investment required by the international community to rehabilitate failed States and their infrastructures.

This "capacity/reorientation" analysis has the advantage of paying attention to the existing level of development rather than to what international agencies feel ought to be present on the ground. Not only is this an a priori advantage as a basis for developing sounder policy, but also it alerts policy makers to the real "opportunities and threats" regarding a particular course of action. This analysis also focuses attention on community resources. Success at the community level has a strong influence on the success of national reconstruction, and is in any case the most reasonable level at which to look for capacity, given the absence of an integrated State (Guest, 1997).

Economic activity continues in times of regress, although both production and markets are likely to be severely disrupted and pushed into the informal sector, with marketed output replaced by subsistence production in many cases. There may be an extremely high level of dependence on external aid for the government budget, for food if domestic agricultural output has been severely disrupted, and for whatever social services are still being provided. Nevertheless, there will often be much economic capacity within the informal sector, reflecting in part the coping strategies developed by communities as a response to conflict. In order to nurture and reorient this capacity, there needs to be an atmosphere in which more formal economic participation is encouraged and private investment can take place (World Bank, 1996). This requires not only the restoration of the rule of law, but also a degree of private sector confidence in the State's ability to guarantee an environment in which commercial activity can be conducted safely.

Economic activity continues in times of regress, although both production and markets are likely to be severely disrupted and pushed into the informal sector.

There is tension between the relief and long-term development roles of the international community. On the one hand, resources are necessary in order to revive the economy and, in many cases, to provide emergency assistance to vulnerable people such as refugees. On the other hand, international assistance may substitute for, and impede, the development of the economy's capacity for recovery – for example, if food aid depresses prices and therefore incentives for domestic food crop production, or if government and the domestic private sector lose all their most talented professionals to the international agencies and NGOs, which offer much higher salaries. The actions of the international com-

munity should have the longer-term objective of enhancing domestic capacities in the public and private sectors rather than the creation of aid dependence.

Assistance from the international community will be needed to rebuild physical capital such as roads, communications links and sewerage facilities, and for the recovery of productive land which has been rendered unusable through the laying of mines. Mine clearance is a long and expensive process, but one whose importance cannot be ignored, for the economy cannot be rebuilt if the agricultural sector is paralysed by the inability to use vast tracts of land. The cost of removing mines is put at between about $900 and $1,000 per mine (United Nations, 1996); and with a huge number of mines in some countries (the total number in Afghanistan is estimated to be in the region of 10 million), the scale of the task is immense.

Finally, and perhaps most significant of all, it is important to remember that an economy does not operate in a vacuum. There are political and social dimensions and structures in which it is embedded. The importance of peace, a stable State and the rule of law to the smooth functioning of the economy has already been noted. The existence of wide resource inequalities as background factors is hugely significant. As J. K. Galbraith has noted, "It is perhaps the prime reason that armed conflict and death are so extensively the fate of the poorest on the planet. Not remarkably, they are the most easily persuaded that the next life will be better because for many it could not be worse" (Galbraith, 1993, in Stewart, Humphreys and Lee, 1997). Relative as well as absolute poverty will have to be addressed, since resource distribution disparities between groups within a State are likely to have been significant in the precipitation of collapse (Zartman, 1995, p. 268; Nafziger, 1996).

Much of the damage arising from internal conflict comes not from the direct actions of combatants but from indirect effects (Stewart, 1996). This is manifested in the decline of social indicators, which reflects the havoc wreaked in the social sector. Community relations, resources and social capital are inevitably degraded by prolonged conflict (Moser, 1996). Child soldiers may present particularly difficult social problems in societies attempting to recover from conflict (see box 15). To combat this damage, a range of capacity-building and reorientation measures need to be undertaken in a number of key sectors, of which health and education are among the most significant.

Conflict also inevitably creates large numbers of refugees and internally displaced people. The reintegration of the internally displaced in areas where capacities are already stretched needs to be carefully and sensitively managed. In addition, there are those whose vulnerability has been the source of the most chronic suffering during the conflict, such as the elderly and the disabled, for whom resources will have to be provided.

Three main policy points have emerged from this section. First, there is tension between the relief and development goals of international organizations. So that basic reconstruction can begin, external guarantees and resources are required. But if reconstruction is to be sustainable, the economies concerned must not become permanently dependent on them. A balance will have to be struck between these two necessities, in which a policy of phased withdrawal may play a part. Second, the underlying social and economic causes of regress need to be addressed. This will take patience and a firm resource commitment, but it is the *sine qua non* of sustainable reconstruction. Without adequate investment in the skills and capacities of the population in key sectors, sustained recovery is unlikely to be achievable. Third, special attention will need to be paid to the "vic-

tims of peace", i.e. the groups that have not benefited from the transition to peace, and are likely to be a triggering cause of renewed conflict if they do not expect to gain more from peace than they would from war.

Throughout the post-conflict reconstruction process, the international community must pay attention to the actual situation in the countries concerned, nurturing and reorienting indigenous capacity where possible. This will necessarily require an extended policy engagement, and demand a high level of resource deployment. Although these costs may seem high, they are quantifiable and can be planned for, unlike the almost certainly higher, and unpredictable, costs imposed by continued conflict.

H. Conclusions

The phenomenon of economic and social regress has become an increasingly significant problem among LDCs in the last decade. The most severe cases have involved state failure and acute internal conflicts. Several of these internal conflicts have attracted international attention because of the humanitarian

Box 15: The use of child soldiers in internal conflicts

One of the most disturbing features of internal conflicts in LDCs is the way in which a population's most vulnerable groups are those most adversely affected. These include women, the elderly, the infirm and children. In some recent conflicts, however, children not only have been victims of aggression, but also have sometimes been recruited by armies and rebel groups as active participants in combat.

This phenomenon is increasingly widespread: child soldiers have been used in Liberia and Mozambique and more recently in Angola, the Democratic Republic of the Congo and Sierra Leone. There are a number of reasons why military commanders favour the recruitment of child soldiers. For example, it is far easier to inculcate a sense of discipline and loyalty in children than in adults. Children lack a mature ethical sensibility, and this means that they can be persuaded to carry out acts which adult soldiers would find unpalatable, such as executions. Furthermore, children rarely have any alternatives to remaining with the army, unlike adult soldiers, who may be tempted by desertion or a return to civilian life. Finally, children are cheap. They require little pay or training, and in some cases, e.g. Liberia, they are paid and pacified with narcotics.

This has both immediate and long-term impacts. In the short term, the strategies of war have changed. Adult soldiers are scared of the arbitrary and unreasoned tactics of children. Child soldiers often treat combat as a street game, frequently taking unwarranted risks and engaging rash manoeuvres. Although this puts them at a severe disadvantage in conventional combat, they can often be very effective in surprise attacks. For this reason, children are often placed in the advance parties of military movements. Some forces have gone so far as to develop special "children's units", in which some young people have been given ranks, as high as that of "General" in Liberia (de Waal, 1996).

The use of child soldiers is likely to have very serious long-term social consequences. Many of these children will have been brutalized and psychologically traumatized by their experiences, and some will be addicted to drugs. Most important perhaps, their links with their families and the communities in which they were raised are likely to have been damaged, if not irrevocably broken. In many societies this will severely prejudice their chances of finding gainful employment. Thus, a violent, uneducated and socially marginalized underclass is being created, whose members have few opportunities to pursue a legitimate livelihood and few social constraints on their behaviour. This underclass will have the potential to cause enormous social damage, either through violent crime or as recruits for future rebel armies.

In countries where children have participated in internal conflicts, programmes to help them reintegrate into society, to address their health problems and to provide them with some basic skills to survive in civilian life should be an essential component of post-conflict reconstruction. They should include the demobilization and disarming of child soldiers, measures to reunite them with their families and to enable them to resume life in their communities if possible, psychosocial counselling and treatment for drug addiction where necessary, and the provision of education and training to try to provide the basis for a less violent future.

Sources: Brett and McCallin (1996); "Impact of armed conflict on children: Note by the Secretary-General", A/51/306, 26 August 1996.

emergencies accompanying them. There has been some form of violent civil strife in about one-third of all LDCs during the last decade. Regress, however, encompasses more than well-publicized humanitarian operations. A large number of LDCs have suffered, to some extent, a deterioration in the ability of the State to provide essential public services and to fulfil a wide range of developmental functions. If the process of state deterioration is not halted and reversed in these countries, it is likely that at least some of them will experience state collapse, internal conflict and humanitarian emergencies at some time in the future.

State failure has important implications for development. The deterioration of state capacities has been one of the principal causes of economic and social regress in LDCs: in turn, economic decline has intensified the process of state disintegration in a vicious downward spiral. The weakness of the State in many LDCs has become a major impediment to the revival of economic growth and development in these countries. Moreover, some cases of state collapse threaten to destabilize large regions of the developing world, with adverse consequences for development in many more countries than those directly experiencing state failure. State failure presents difficult challenges for international agencies responsible for providing development assistance to LDCs.

The development of democratic structures which make governments and public officials more accountable to citizens can help ensure that scarce state resources are used more efficiently for the public good.

This Report aims to draw attention to the need to take prompt action to address the problems of regress in LDCs. The appropriate policy responses will depend on the particular circumstances of individual countries. The majority of LDCs still have a functioning state apparatus. In these countries the priority should be to reverse the deterioration of state capacities before more serious consequences arise. The United Nations and other donors have an important role to play in providing financial and technical assistance to strengthen state capacities in LDCs. Furthermore, they should give their attention to the political factors which have contributed to undermining the State, in particular the lack of democracy and accountability of governments and public officials. The development of democratic structures which make governments and public officials more accountable to citizens can help ensure that scarce state resources are used more efficiently for the public good. It can also serve to enhance the legitimacy of the State among its citizens, provide a mechanism for resolving conflicts peacefully, and therefore reduce the likelihood of political and other disagreements escalating into civil wars.

For those LDCs which are recovering from major internal conflicts, post-conflict reconstruction will be a priority. The international community will have to provide considerable resources to assist in the rebuilding of social, administrative and economic structures. Throughout the reconstruction process, the international community must pay attention to the actual situation in the countries concerned, nurturing and reorienting indigenous capacity where possible. This will necessarily require an extended policy engagement, and demand a high level of resource deployment. Although these costs may seem high, they are quantifiable and can be planned for, unlike the almost certainly higher costs imposed by continued conflict and regress. It is in the long-term interests of all parties to try to reverse regress – and with a broad, well-funded, politically balanced and sensitive policy package, there is every hope that, in time, regressed States will be back on a path to sustainable development.

Although the costs of tackling regress may seem high, they are quantifiable and can be planned for, unlike the almost certainly higher costs imposed by continued conflict and decline.

The phenomenon of regress involves complex interactions between social, political and economic processes which are not well understood. Our understanding of the dynamics of the processes which give rise to regress, and those which enable some countries to recover from regress, needs to be enhanced, if

effective policies to tackle these problems are to be devised. This will require substantial research into all aspects of regress, and in particular a multi-disciplinary empirical research programme to analyse ongoing developments in LDCs. The research should focus on drawing out the relevant lessons from the experience of economies in regress for the policies and strategies of LDC governments, donors and international organizations. The latter are well placed to initiate and carry out the necessary research programmes.

Notes

1 See Gros (1996) and Zartman (1995).

2 Sen (1994) discusses how economic regress can be defined and measured. Different criteria can be used to evaluate economic regress – for example, different economic or social variables; whether economic and social indicators are worsening in absolute terms or relative to other countries; whether the unit of analysis is a whole country or a region within a country; and the time period over which trends are assessed. Sen himself uses long-run (1960-1985) per capita GDP growth rates, and trends in under-5 mortality rates.

3 A further reason for distrusting the available data is that governments involved in civil wars often have incentives to manipulate economic and social statistics for propaganda purposes.

4 Bangura (1997) provides an analysis of the role of patrimonial rule in the collapse of the State in Sierra Leone.

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Statistical Annex

Basic Data on the Least Developed Countries

Contents

Explanatory Notes

Definition of country groupings

Least developed countries

The United Nations has designated 48 countries as least developed: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo (formerly Zaire), Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia. Except where otherwise indicated, the totals for least developed countries refer to these 48 countries.

Major economic areas

The classification of countries and territories according to main economic areas used in this document has been adopted for purposes of statistical convenience only and follows that in the UNCTAD *Handbook of International Trade and Development Statistics 1994*.[1] Countries and territories are classified according to main economic areas as follows:

Developed market economy countries: United States, Canada, EU (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom), EFTA, (Iceland, Norway, Switzerland), Faeroe Islands, Gibraltar, Israel, Japan, Australia, New Zealand, South Africa.

Countries in Eastern Europe: Albania, Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia and the former USSR.

Developing countries and territories: All other countries, territories and areas in Africa, Asia, America, Europe and Oceania not specified above.

Other country groupings

DAC member countries: The countries members of the OECD Development Assistance Committee are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States.

OPEC member countries: The countries members of the Organization of Petroleum Exporting Countries are Algeria, Ecuador, Gabon, Indonesia, Iran (Islamic Republic of) Iraq, Kuwait, Libyan Arab Jamahiriya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates and Venezuela.

Other notes

Average growth rates for 1980-1990 and 1990-1995 are calculated using least-squares estimation. The least-squares growth rate is estimated by fitting a linear regression trend to logarithmic annual values. This does not necessarily measure the growth between the first and last points in the relevant period but provides a calculation which takes account of all parts in the period.

Population growth rates are calculated as exponential growth rates.

"Dollars" ($) refer to United States dollars, unless otherwise stated.
Details and percentages in tables do not necessarily add up to totals, because of rounding.

The following symbols have been used:

A hyphen (-) indicates that the amount is nil or negligible.
Two dots (..) indicate that the data are not available or are not separately reported.
A dot (.) indicates that the item is not applicable.
Use of a hyphen (-) between dates representing years, e.g. 1980-1990, signifies the full period involved, including the initial and final years.

[1] United Nations Publication, Sales No. E/F.95.II.D.15.

Abbreviations

ACBF	African Capacity Building Foundation
ADF	African Development Fund
AfDB	African Development Bank
AfDF	African Development Fund
AFESD	Arab Fund for Economic and Social Development
AFTAAC	Arab Fund for Technical Assistance to African and Arab Countries
AsDB	Asian Development Bank
BADEA	Arab Bank for Economic Development in Africa
BDEAC	Banque de Développement des Etats de l'Afrique Centrale
BITS	Swedish Agency for International Technical and Economic Cooperation
BOAD	West African Development Bank
CCCE	Caisse centrale de coopération économique (France)
CIDA	Canadian International Development Agency
CMEA	Council for Mutual Economic Assistance
CRS	Creditor Reporting System (OECD)
DAC	Development Assistance Committee (OECD)
DANIDA	Danish International Development Agency
DCD	Development Cooperation Department (Italy)
DRS	Debtor Reporting System (World Bank)
ECA	Economic Commission for Africa (United Nations)
EDF	European Development Fund
EEC	European Economic Community
EFTA	European Free Trade Association
EIB	European Investment Bank
ESAF	Enhanced Structural Adjustment Facility
EU	European Union
FAC	Fonds d'aide et de coopération (France)
FAO	Food and Agriculture Organization of the United Nations
GTZ	German Technical Assistance Corporation
IBRD	International Bank for Reconstruction and Development (World Bank)
ICAO	International Civil Aviation Organization
IDA	International Development Association
IDB	Inter-American Development Bank
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
IMF	International Monetary Fund

IsDB	Islamic Development Bank
KFAED	Kuwait Fund for Arab Economic Development
KfW	Kreditanstalt für Wiederaufbau
LDCs	least developed countries
mill.	millions
OAPEC	Organisation of Arab Petroleum Exporting Countries
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
OECF	Overseas Economic Co-operation Fund
OPEC	Organisation of Petroleum Exporting Countries
SAAFA	Special Arab Aid Fund for Africa
SAF	Structural Adjustment Facility
SDC	Swiss Development Corporation
SFD	Saudi Fund for Development
SITC	Standard International Trade Classification (Revision I, unless otherwise indicated)
SNPA	Substantial New Programme of Action for the 1980s for the Least Developed Countries
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNTA	United Nations Technical Assistance
USAID	United States Agency for International Development
WFP	World Food Programme

1. Per capita GDP and population: Levels and growth

	Per capita GDP in 1995 dollars		Annual average growth rates of per capita real GDP (%)		Population Level	Population Annual average growth rates (%)	
	1980	1995	1980-1990	1990-1995	1995	1980-1990	1990-1995
Afghanistan	..	..	..	..	20.1	-1.0	6.1
Angola	450[a]	335	0.8[b]	-7.0	11.1	2.7	3.8
Bangladesh	171	242	1.7	2.5	120.4	2.0	2.2
Benin	..	282[c]	-0.5	0.5	5.4	3.0	3.1
Bhutan	98	190	5.5	1.8	1.6	2.3	1.1
Burkina Faso	201	226	1.1	-0.3	10.3	2.6	2.8
Burundi	182	166	1.5	-4.9	6.4	2.9	3.0
Cambodia	213[d]	269	1.8[e]	3.4	10.3	3.3	3.0
Cape Verde	..	858[c]	3.9	1.3	0.4	1.7	2.8
Central African Republic	398	342	-0.6	-1.3	3.3	2.4	2.5
Chad	126	178	3.8	-0.6	6.4	2.2	2.8
Comoros	440	348	0.2	-1.8	0.7	3.5	3.8
Dem. Rep. of the Congo	..	..	-1.5	-11.8[f]	43.9	3.3	3.2
Djibouti	..	..	..	..	0.6	6.4	2.1
Equatorial Guinea	324[g]	421	0.4[h]	5.2	0.4	5.1	2.6
Eritrea	..	..	..	..	3.5	2.6	2.8
Ethiopia	108[i]	96	-0.9[j]	1.2	55.0	2.7	3.0
Gambia	388	349	-0.2	-2.2	1.1	3.7	3.9
Guinea	505[g]	550	1.0[h]	1.0	6.7	2.6	3.1
Guinea-Bissau	163	234	2.7	1.4	1.1	1.9	2.2
Haiti	525	284	-2.1	-8.4	7.2	1.9	2.1
Kiribati	350	429	-1.4	-0.2	0.1	2.1	2.5
Lao PDR	285[k]	359	0.6[l]	3.4	4.9	2.8	3.0
Lesotho	364	515	1.6	5.2	2.0	3.0	2.7
Liberia	..	..	..	..	3.0	3.2	3.4
Madagascar	342	216	-1.6	-3.0	14.8	3.3	3.3
Malawi	175	132	-1.0	-2.0	11.1	4.3	3.5
Maldives	650[a]	1 067	6.4[b]	3.3	0.2	3.0	3.4
Mali	259	225	-0.7	-0.4	10.8	3.0	3.2
Mauritania	488	464	-0.9	1.4	2.3	2.6	2.6
Mozambique	88	92	-1.7	4.3	16.0	1.5	2.4
Myanmar	..	..	..	..	46.5	2.1	2.2
Nepal	140	192	2.0	2.5	22.0	2.6	2.6
Niger	341	204	-4.3	-2.7	9.1	3.3	3.4
Rwanda	303	141	-0.8	-10.3	8.0	3.1	2.6
Samoa	..	..	0.7	-2.4[f]	0.2	0.2	1.1
Sao Tome and Principe	491	455	-2.1	-0.8	0.1	2.4	2.3
Sierra Leone	258	183	-0.5	-5.1	4.5	2.1	2.4
Solomon Islands	713	892	3.3	2.2	0.4	3.5	3.4
Somalia	..	..	-0.5	..	9.3	2.6	1.2
Sudan	..	..	-1.9	3.6	28.1	2.8	2.7
Togo	448	308	-1.2	-4.6	4.1	3.0	3.2
Tuvalu	..	..	..	..	..	1.2	1.5
Uganda	233[i]	265	0.5[j]	3.3	21.3	3.2	3.5
United Rep. of Tanzania	115[i]	121	0.6[j]	0.2	29.7	3.3	3.0
Vanuatu	..	1 095[c]	0.5	-1.9[m]	0.2	2.5	2.6
Yemen	..	330	..	..	14.5	3.2	5.2
Zambia	667	429	-2.2	-3.1	9.5	3.6	3.0
All LDCs	226	235	-0.1	0.9	588.5	2.5	2.9
All developing countries	868	1 199	1.2	2.6	4 526.1	2.1	1.9
Developed market economy countries	19 223	24 971	2.3	1.0	870.3	0.7	0.7
Countries in Eastern Europe	3 636	2 652	1.3	-7.8	392.0	0.6	-0.1

Source: UNCTAD secretariat calculations, based on data from the Statistics Division of the United Nations, the World Bank (*World Development Indicators 1997*), the Asian Development Bank, and other international and national sources.

Note: Aggregates based on countries for which data are available. All LDCs' GDP and GDP per capita growth rates are weighted averages of LDCs for which data are available.

a 1985. *b* 1985-1990. *c* 1994. *d* 1987. *e* 1987-1990. *f* 1990-1992. *g* 1986. *h* 1986-1990. *i* 1983. *j* 1983-1990. *k* 1984. *l* 1984-1990. *m* 1990-1994.

2. Real GDP, total and per capita: Annual average growth rates

(Percentage)

Country	Total real product					Per capita real product				
	1980-1990	1990-1995	1993	1994	1995	1980-1990	1990-1995	1993	1994	1995
Afghanistan	..	..	..	..	..	..	..	..	..	..
Angola	3.7[b]	-4.1	-24.4	7.7	6.3	0.8[b]	-7.0	-26.7	4.4	3.1
Bangladesh	4.3	4.1	4.4	4.1	4.4	1.7	2.5	2.8	2.6	2.8
Benin	2.6	4.1	3.2	4.4	4.8	-0.5	0.5	0.3	1.5	1.6
Bhutan	7.7	4.8	4.5	5.1	6.5	5.5	1.8	1.5	2.1	3.4
Burkina Faso	3.7	2.6	-0.9	1.3	4.5	1.1	-0.3	-3.7	-1.5	1.6
Burundi	4.4	-2.3	-6.0	-6.6	-3.8	1.5	-4.9	-8.5	-9.0	-6.1
Cambodia	5.1[e]	6.4	5.1	4.6	7.8	1.8[e]	3.4	2.2	1.8	5.0
Cape Verde	5.7	3.5	4.0	4.5	4.7	3.9	1.3	1.8	2.2	1.7
Central African Republic	1.7	1.0	-2.5	7.4	4.1	-0.6	-1.3	-4.6	5.1	2.0
Chad	6.3	1.9	-2.9	4.0	5.5	3.8	-0.6	-5.3	1.4	2.9
Comoros	2.8	1.0	3.8	-2.3	-2.3	0.2	-1.8	0.9	-5.1	-5.1
Dem. Rep. of the Congo	1.7	-8.9[f]	..	..	..	-1.5	-11.8[f]	..	..	..
Djibouti	..	..	-3.9	-2.9	-3.1	..	..	..	..	..
Equatorial Guinea	2.4[h]	7.9	7.3	6.8	11.2	0.4[h]	5.2	4.6	3.6	7.3
Eritrea	..	..	..	..	..	..	..	..	..	..
Ethiopia	2.3[j]	2.8	12.4	2.1	4.9	-0.9[j]	1.2	15.6	-0.9	2.1
Gambia	3.4	1.6	0.4	-6.8	3.2	-0.2	-2.2	-3.3	-9.9	0.0
Guinea	4.0[h]	3.8	4.6	4.0	4.6	1.0[h]	1.0	1.8	1.3	1.9
Guinea-Bissau	4.5	3.5	2.8	6.4	1.7	2.7	1.4	0.7	4.1	-0.7
Haiti	-0.2	-6.5	-2.6	-10.6	4.5	-2.1	-8.4	-4.6	-12.5	2.2
Kiribati	0.8	1.7	1.0	1.7	2.6	-1.4	-0.2	-0.9	-0.2	0.7
Lao People's Dem. Rep.	3.8[l]	6.5	5.9	8.2	7.2	0.6[l]	3.4	2.7	5.1	4.2
Lesotho	4.3	7.5	5.0	17.5	10.0	1.6	5.2	2.8	15.1	7.7
Liberia	..	..	..	..	..	..	..	..	..	..
Madagascar	1.3	0.1	2.0	-0.1	1.8	-1.6	-3.0	-1.2	-3.1	-1.2
Malawi	2.3	0.7	15.2	-12.9	13.5	-1.0	-2.0	12.1	-15.3	10.5
Maldives	9.9[b]	6.6	6.2	6.6	7.2	6.4[b]	3.3	2.9	3.3	3.9
Mali	1.8	2.5	-2.4	2.3	6.4	-0.7	-0.4	-5.2	-0.7	3.3
Mauritania	1.7	4.0	5.9	4.4	4.6	-0.9	1.4	3.2	1.7	2.0
Mozambique	-0.2	7.1	19.3	5.4	4.3	-1.7	4.3	16.2	2.1	0.4
Myanmar	..	..	..	..	..	..	..	..	..	..
Nepal	4.6	5.1	3.8	8.2	3.3	2.0	2.5	1.2	5.5	0.8
Niger	-1.1	0.5	1.4	3.9	3.2	-4.3	-2.7	-1.8	0.5	-0.3
Rwanda	2.3	-12.8	-10.4	-48.0	23.0	-0.8	-10.3	8.6	-49.4	19.7
Samoa	1.0	-1.8[f]	..	..	..	0.7	-2.4[f]	..	..	..
Sao Tome and Principe	-0.2	1.7	1.3	2.2	2.0	-2.1	-0.8	-0.9	-0.5	-0.9
Sierra Leone	1.6	-4.2	0.6	4.3	-9.2	-0.5	-5.1	-0.3	3.7	-9.5
Solomon Islands	6.6	5.5	1.8	5.3	8.5	3.3	2.2	-1.4	2.4	5.6
Somalia	2.1	..	..	..	..	-0.5	..	..	..	..
Sudan	0.6	6.8	7.6	5.5	4.4	-1.9	3.6	5.4	3.3	1.7
Togo	1.8	-1.8	-14.7	13.0	8.2	-1.2	-4.6	-17.2	9.7	5.1
Tuvalu	..	..	..	..	..	..	..	..	..	..
Uganda	3.1[j]	6.6	8.3	6.1	11.2	0.5[j]	3.3	4.9	2.8	7.9
United Rep. of Tanzania	3.8[j]	3.2	2.4	3.7	4.0	0.6[j]	0.2	-0.6	0.6	1.0
Vanuatu	3.0	0.9[m]	7.6	2.0	..	0.5	-1.9[m]	4.7	-0.7	..
Yemen	..	..	..	..	..	..	..	..	..	..
Zambia	0.8	-0.2	2.4	-1.6	-3.1	-2.2	-3.1	-0.5	-4.4	-5.8
All LDCs	2.7	3.5	3.3	3.8	5.2	-0.1	0.9	1.6	1.2	2.5
All developing countries	3.3	4.6	5.0	4.8	4.8	1.2	2.6	3.0	2.9	2.9
Developed market economy countries	2.9	1.7	1.1	2.9	2.0	2.3	1.0	0.4	2.2	1.4
Countries in Eastern Europe	1.9	7.9	-7.2	-9.1	-1.9	1.3	-7.8	-7.1	-9.0	-1.8

Source: UNCTAD secretariat calculations, based on data from the Statistics Division of the United Nations, the World Bank (*World Development Indicators 1997*), the Asian Development Bank, and other international and national sources.

Note: Data for Ethiopia prior to 1992 include Eritrea.

For footnotes see table 1.

3. Agricultural production, total and per capita: Annual average growth rates

	Percentage share of agriculture in:				Annual average growth rates (%)					Annual average growth rates (%)				
	Total labour force		GDP		Total agricultural production					Per capita agricultural production				
	1980	1995	1980	1995	1980-1990	1990-1995	1993	1994	1995	1980-1990	1990-1995	1993	1994	1995
Afghanistan	61	69	..	..	..	..	..	..	..	..	..	..	..	..
Angola	74	74	14[a]	12	0.6	0.5	-2.6	-3.6	2.1	-2.1	-3.2	-6.4	-7.1	-1.6
Bangladesh	75	62	50	31	2.1	-0.2	-0.1	-3.6	-0.5	0.1	-2.4	-2.2	-5.8	-2.6
Benin	70	60	35	34[b]	6.7	4.3	10.1	2.0	-2.9	3.6	1.1	6.8	-1.2	-5.8
Bhutan	93	94	57	40[b]	1.6	1.9	10.9	1.7	0.1	-0.6	0.8	9.9	0.6	-1.4
Burkina Faso	87	92	33	34[b]	6.4	3.8	3.4	-1.3	0.0	3.7	1.0	0.6	-3.9	-2.7
Burundi	93	91	62	56	2.8	-2.2	-3.2	-13.5	6.3	-0.1	-5.1	-6.0	-16.2	3.3
Cambodia	75	73	43[c]	51	5.9	-0.2	3.8	0.0	-8.4	2.5	-3.2	0.8	-2.9	-10.9
Cape Verde	52	27	14	13[d]	9.6	13.4	41.4	-20.2	107.3	7.9	10.2	37.4	-22.5	101.4
Central African Rep.	72	78	40	44[b]	2.3	2.0	-0.5	5.6	-0.7	-0.1	-0.6	-2.9	3.0	-3.1
Chad	83	81	54	44[d]	2.3	3.3	-5.0	14.5	-0.1	0.1	0.5	-7.6	11.3	-2.9
Comoros	83	75	34	39	2.4	2.4	5.2	2.8	0.5	-1.1	-1.4	1.4	-0.9	-3.1
Dem. Rep. of the Congo	72	66	25	30[e]	3.2	-0.1	1.3	-5.8	-1.1	-0.2	-3.2	-1.9	-8.7	-4.1
Djibouti	..	..	3[e]	3	8.8	-4.4	-8.1	4.8	0.0	2.3	-6.4	-9.9	3.0	-2.0
Equatorial Guinea	66	73	69[a]	50[b]	1.4	-1.1	1.0	-5.1	0.0	-3.5	-3.6	-1.7	-7.5	-2.8
Eritrea	..	79	..	11	..	13.0[f]	..	43.0	-10.7	..	..	..	..	..
Ethiopia	80[g]	85	56[h]	57[b]	..	3.4[f]	..	0.5	6.3	..	..	..	..	..
Gambia	84	80	30	28[b]	1.0	2.4	16.6	3.2	8.8	-2.6	-1.4	12.1	-0.4	5.2
Guinea	81	85	24[i]	24	0.2	4.2	0.7	4.8	2.8	-2.3	1.1	-2.3	1.7	-0.3
Guinea-Bissau	82	84	44	46	3.8	2.6	2.7	5.4	1.3	1.9	0.4	0.5	3.1	-0.8
Haiti	70	66	33[j]	44[b]	-0.1	-1.2	1.0	1.3	-0.6	-2.0	-3.1	-1.0	-0.7	-2.7
Kiribati	..	..	21	25[k]	-0.9	2.7	-7.1	0.9	0.0	-2.5	0.7	-8.3	-1.7	-1.2
Lao People's Dem.Rep.	76	77	54[a]	52[d]	3.5	3.9	-4.3	18.6	-2.9	0.7	0.8	-7.1	15.1	-5.6
Lesotho	86	39	24	10	1.7	0.1	11.4	15.7	-23.7	-1.2	-2.6	8.2	12.7	-25.7
Liberia	74	70	36	37[i]	..	..	..	..	..	..	..	..	..	..
Madagascar	81	76	30	34	1.9	0.7	2.6	-2.9	4.4	-1.4	-2.4	-0.6	-6.0	1.1
Malawi	83	86	37	42	1.5	1.5	31.1	-18.1	19.9	-2.7	-1.9	26.6	-20.6	16.8
Maldives	..	30	..	..	2.1	2.0	2.4	2.9	0.0	-1.1	-1.2	-0.5	-0.5	-3.1
Mali	86	84	61	46	2.7	2.7	1.4	7.8	0.0	-0.3	-0.5	-1.9	4.5	-3.2
Mauritania	69	49	30	27[d]	1.4	-1.0	-4.4	4.4	3.4	-1.2	-3.5	-6.7	1.8	0.7
Mozambique	84	81	37	33[b]	-0.7	0.9	13.4	0.5	16.3	-2.2	-1.5	10.5	-2.3	13.0
Myanmar	53	72	47	63[b]	0.6	7.7	11.8	7.4	9.0	-1.5	5.4	9.4	5.2	6.7
Nepal	93	93	62	42	4.4	1.0	9.8	-2.6	1.5	1.7	-1.6	6.9	-5.3	-1.0
Niger	91	89	43	39[d]	-0.8	4.2	-2.5	2.4	0.7	-4.0	0.7	-5.7	-1.0	-2.7
Rwanda	93	91	50	37	1.2	-5.4	-6.2	-19.9	8.8	-1.8	-7.8	-8.7	-21.9	6.1
Samoa	..	..	46	40[k]	0.2	0.1	9.9	0.0	0.0	-0.0	-0.9	8.5	-1.1	-1.2
Sao Tome and Principe	..	..	29[c]	23[d]	-1.3	5.5	0.2	3.2	-2.3	-3.6	3.2	-1.3	0.8	-4.6
Sierra Leone	70	67	33	42	2.3	-1.9	-1.6	7.5	-11.3	0.2	-4.3	-3.9	4.9	-13.4
Solomon Islands	..	76	..	..	-0.2	1.4	-3.5	0.6	2.4	-3.5	-2.0	-6.5	-2.7	-1.0
Somalia	76	94	68	66[j]	..	..	..	..	..	..	..	..	..	..
Sudan	71	68	34	34[k]	-0.5	5.2	-9.8	17.0	-2.7	-3.2	2.4	-12.1	13.8	-5.2
Togo	73	62	27	38[b]	4.5	0.6	13.1	-13.9	-0.3	1.5	-2.5	9.6	-16.7	-3.3
Tuvalu	..	..	..	..	-4.1	-0.5	-26.8	0.0	0.0	-5.3	-3.2	-34.2	0.0	0.0
Uganda	86	83	72	50	3.1	3.3	6.9	2.6	5.4	-0.1	-0.2	3.2	-0.8	2.1
United Rep. of Tanzania	86	83	46[h]	58	2.8	-0.3	2.3	-2.7	3.7	-0.5	-3.2	-0.7	-5.6	0.7
Vanuatu	..	..	19	20[j]	1.2	1.3	13.0	-0.1	5.2	-1.4	-1.0	10.2	-2.5	3.3
Yemen	62	57	19[j]	22[b]	3.9	3.8	6.9	-0.4	1.8	0.7	-1.3	1.3	-5.2	-2.6
Zambia	73	74	14	22	4.1	1.8	42.8	-13.3	-4.8	0.5	-1.2	38.6	-15.7	-7.5
All LDCs	76	74	36	39	1.8	4.3	12.4	0.9	2.6	-0.7	-1.2	-1.1	-2.0	-0.3
All developing countries	66	59	16	13	3.4	3.4	3.1	4.2	3.7	1.3	1.5	1.2	2.2	1.8

Source: UNCTAD secretariat calculations, based on data from FAO, the Economic Commission for Africa, the World Bank, and other international and national sources.

a 1985. *b* 1994. *c* 1987. *d* 1993. *e* 1989. *f* 1993-1995. *g* Includes Eritrea. *h* 1981. *i* 1986. *j* 1990. *k* 1992.

4. Food production, total and per capita: Annual average growth rates

(Percentage)

	Total food production					Per capita food production				
	1980-1990	1990-1995	1993	1994	1995	1980-1990	1990-1995	1993	1994	1995
Afghanistan	..	..	..	..	..	..	..	..	..	..
Angola	1.0	0.6	-3.0	-3.1	1.9	-1.7	-3.1	-6.7	-6.8	-1.7
Bangladesh	2.2	-0.2	0.0	-3.6	-0.4	0.2	-2.3	-2.1	-5.7	-2.6
Benin	5.5	2.6	0.6	5.3	-3.5	2.4	-0.5	-2.4	2.2	-6.5
Bhutan	1.6	1.9	10.9	1.7	0.1	-0.7	0.8	9.9	0.6	-1.4
Burkina Faso	5.7	4.7	4.7	-1.8	0.0	3.0	1.8	1.8	-4.5	-2.6
Burundi	2.7	-2.3	-1.6	-16.4	9.2	-0.2	-5.2	-4.6	-18.8	6.0
Cambodia	5.7	-0.5	4.8	-1.5	-9.0	2.4	-3.4	1.6	-4.3	-11.5
Cape Verde	9.7	13.4	41.4	-20.2	107.2	7.9	10.3	37.6	-22.5	101.5
Central African Republic	2.3	2.4	1.2	2.8	0.0	0.0	-0.1	-1.3	0.2	-2.3
Chad	1.8	4.7	-4.0	14.7	0.0	-0.3	1.9	-6.6	11.4	-2.8
Comoros	2.4	2.4	5.2	2.8	0.5	-1.1	-1.3	1.4	-0.9	-3.0
Dem. Republic of the Congo	3.3	0.1	3.0	-6.7	-1.1	0.0	-3.0	-0.2	-9.6	-4.1
Djibouti	8.8	-4.4	-8.1	4.8	0.0	2.3	-6.4	-9.9	3.0	-2.0
Equatorial Guinea	1.5	-1.6	1.5	-7.4	0.0	-3.3	-4.1	-1.2	-9.8	-2.8
Eritrea	..	..	..	44.3	-10.9	..	..	..	..	..
Ethiopia	2.3[a]	..	..	-0.2	6.3	..	..	..	..	..
Gambia	1.0	1.6	16.4	3.4	4.6	-2.6	-2.3	11.8	-0.4	1.2
Guinea	0.0	4.2	-0.1	5.1	3.0	-2.6	1.1	-3.1	1.9	0.0
Guinea-Bissau	3.9	2.7	2.5	5.5	1.4	2.0	0.5	0.3	3.3	-0.8
Haiti	0.0	-1.1	-0.1	1.4	-0.7	-2.0	-3.1	-2.1	-0.6	-2.8
Kiribati	-0.9	2.7	-7.1	0.9	0.0	-2.5	0.7	-8.3	-1.7	-1.2
Lao People's Dem. Republic	3.5	3.9	-4.2	19.3	-3.8	0.7	0.8	-6.9	15.9	-6.6
Lesotho	1.9	-1.7	13.7	17.8	-27.5	-1.0	-4.3	10.5	14.7	-29.3
Liberia	..	..	..	..	..	..	..	..	..	..
Madagascar	1.9	0.8	2.7	-3.2	4.6	-1.3	-2.4	-0.6	-6.2	1.4
Malawi	0.7	1.4	42.7	-17.8	16.7	-3.5	-2.1	37.8	-20.2	13.7
Maldives	2.1	2.0	2.4	2.9	0.0	-1.1	-1.2	-0.5	-0.5	-3.1
Mali	2.1	3.1	6.1	7.5	0.0	-0.9	-0.2	2.8	4.1	-3.0
Mauritania	1.4	-1.0	-4.4	4.4	3.4	-1.2	-3.5	-6.7	1.8	0.7
Mozambique	0.0	0.9	14.1	0.2	17.1	-1.5	-1.5	11.3	-2.5	13.7
Myanmar	0.7	7.8	12.0	7.7	9.3	-1.4	5.5	9.5	5.5	7.0
Nepal	4.5	1.1	10.0	-2.7	1.6	1.9	-1.5	7.2	-5.2	-1.0
Niger	-0.9	4.2	-2.3	2.5	0.6	-4.0	0.7	-5.6	-1.0	-2.7
Rwanda	0.8	-4.7	-4.9	-16.1	5.5	-2.2	-7.1	-7.2	-18.2	2.7
Samoa	0.2	0.1	10.1	0.0	0.0	0.0	-1.0	8.7	-1.1	-1.2
Sao Tome and Principe	-1.3	5.5	0.1	3.2	-2.3	-3.5	3.3	-1.4	0.8	-4.6
Sierra Leone	1.7	-2.1	-1.2	7.1	-11.7	-0.5	-4.4	-3.5	4.4	-13.8
Solomon Islands	-0.2	1.4	-3.5	0.6	2.4	-3.5	-2.0	-6.5	-2.7	-1.0
Somalia	..	..	..	..	..	..	..	..	..	..
Sudan	-0.6	5.4	-9.1	15.9	-4.5	-3.3	2.6	-11.6	12.9	-7.1
Togo	3.2	0.2	17.5	-16.8	3.0	0.1	-2.9	13.8	-19.4	-0.1
Tuvalu	-4.1	-0.5	-26.8	0.0	0.0	-5.3	-3.2	-34.2	0.0	0.0
Uganda	3.1	2.6	5.4	0.4	4.9	-0.0	-0.9	1.9	-3.0	1.6
United Republic of Tanzania	3.0	-0.2	2.2	-0.2	3.3	-0.3	-3.1	-0.8	-3.2	0.5
Vanuatu	1.2	1.3	13.0	-0.1	5.2	-1.4	-1.0	10.2	-2.5	3.3
Yemen	4.1	3.8	7.1	0.1	1.9	1.0	-1.3	1.5	-4.7	-2.5
Zambia	3.9	1.6	39.5	-11.6	-6.7	0.3	-1.3	35.5	-14.0	-9.4
All LDCs	1.8	4.3	12.6	0.9	2.3	-0.7	-1.2	-1.0	-1.9	-0.5
All developing countries	3.4	3.7	3.6	4.6	3.6	1.3	1.8	1.6	2.7	1.8

Source: UNCTAD secretariat calculations, based on data from FAO.

a 1985-1990 included Eritrea.

5. The manufacturing sector: Annual average growth rates and shares in GDP

(Percentage)

	Share in GDP		Annual average growth rates				
	1980	1995	1980-1990	1990-1995	1993	1994	1995
Afghanistan	..	..	..	..	..	..	..
Angola	10[a]	3	-11.1[b]	-11.1	-19.5	-8.8	2.0
Bangladesh	11	10	2.8	7.4	9.1	7.8	8.6
Benin	8	8[c]	5.1	5.3[d]	2.4	3.9	..
Bhutan	3	..	13.0	3.1[e]	10.1	..	..
Burkina Faso	16	21[c]	2.0	1.1[d]	..	1.7	..
Burundi	7	12	5.7	-7.2	-18.2	-10.0	-12.6
Cambodia	..	6	8.7[f]	6.9	7.9	8.3	8.6
Cape Verde	..	..	..	..	..	..	..
Central African Republic	7	..	..	..	..	..	..
Chad	17[g]	..	4.4[h]	-9.2[e]	-3.0	..	..
Comoros	4	5	4.8	3.9	8.4	1.0	1.0
Dem. Republic of the Congo	14	..	2.3[i]	..	..	..	..
Djibouti	5	5	..	..	..	..	..
Equatorial Guinea	9[a]	14[c]	9.9[f]	10.2[d]	11.3	21.1	..
Eritrea	..	11	..	..	..	..	..
Ethiopia	5[j]	3[c]	1.2[h]	4.5	51.9	7.6	9.4
Gambia	7	7[c]	6.5[k]	1.2	4.6	-2.8	-2.0
Guinea	3	5	..	..	..	..	..
Guinea-Bissau	14[l]	7	-4.7[i]	0.5	1.2	1.5	2.0
Haiti	..	..	..	..	..	..	..
Kiribati	2	..	-1.4[h]	..	..	..	..
Lao People's Dem. Republic	10[a]	..	..	..	13.5	..	..
Lesotho	7	18	13.5	9.1	5.0	12.9	1.5
Liberia	8	..	..	..	..	..	..
Madagascar	12[a]	13	1.9[m]	2.5	1.9	3.8	18.3
Malawi	12	18	3.6	-0.2	-10.5	3.2	6.3
Maldives	4	..	..	..	..	..	..
Mali	4	6	4.1[m]	4.8	5.5	2.4	6.4
Mauritania	13[a]	13[n]	..	1.5	5.6	-18.2	10.4
Mozambique	..	..	..	..	..	..	..
Myanmar	10	7[c]	..	..	9.8	8.9	..
Nepal	4	10	3.7[b]	14.1	6.2	12.3	2.0
Niger	4	..	..	..	..	..	..
Rwanda	16	3[c]	2.6	-16.4	-16.7	-35.0	-7.7
Samoa	6	11[o]	..	..	..	..	..
Sao Tome and Principe	9[l]	7[n]	..	..	..	..	..
Sierra Leone	5	6	3.4	4.4	25.7	4.2	-9.9
Solomon Islands	..	..	..	..	..	..	..
Somalia	5	5[p]	-1.7	..	..	..	..
Sudan	7	9[o]	3.7	..	..	..	..
Togo	8	9[c]	1.7	-3.2	-38.2	24.4	20.9
Tuvalu	..	..	..	..	..	..	..
Uganda	4	6	4.0[h]	12.2	7.1	15.1	16.9
United Republic of Tanzania	11[j]	8	1.1[h]	3.6	3.2	-0.9	4.5
Vanuatu	4	6	14.9[h]	..	..	..	..
Yemen	12[a]	..	..	..	..	..	..
Zambia	18	30	4.0	-1.0	-10.5	-6.5	5.5
All LDCs	10	9	7.5	-3.1	1.6	0.5	-0.5

Source: UNCTAD secretariat calculations, based on data from the World Bank (*World Development Indicators 1997*).
a 1985. *b* 1985-1990. *c* 1994. *d* 1990-1994. *e* 1990-1993. *f* 1987-1990. *g* 1983. *h* 1983-1990. *i* 1980-1989. *j* 1981. *k* 1982-1990. *l* 1986. *m* 1984-1990. *n* 1993. *o* 1992. *p* 1990.

6. Investment: Annual average growth rates and shares in GDP

(Percentage)

	Share in GDP		Annual average growth rates				
	1980	1995	1980-1990	1990-1995	1993	1994	1995
Afghanistan	..	..	..	..	..	..	..
Angola	18[a]	27	6.8[b]	0.1	-26.5	8.3	12.6
Bangladesh	15	17	1.4	8.2	18.9	11.6	28.2
Benin	15	20[c]	-6.2	12.1[d]	7.6	15.5	..
Bhutan	31	32[c]	7.6[e]	..	..	..	..
Burkina Faso	17	22[c]	8.6	-5.8	-30.4	-42.0	..
Burundi	14	11	4.5	-5.0	-0.8	-40.7	..
Cambodia	9[f]	19[c]	..	..	..	..	..
Cape Verde	52	45[g]	-2.1	26.7[h]	9.1	..	..
Central African Republic	7	15	4.8	-8.7[d]	-30.5	26.7	..
Chad	4[i]	9[g]	19.0	-2.9[h]	2.2	..	..
Comoros	33	17	-3.9	-5.9	-15.0	-13.0	-8.4
Dem. Republic of the Congo	10	15[j]	-0.5[k]	..	..	..	..
Djibouti	..	12	..	..	..	..	..
Equatorial Guinea	6[a]	23[c]	..	..	..	..	..
Eritrea	..	20	..	..	..	..	..
Ethiopia	9	17	3.5[b]	21.9	50.4	34.4	8.1
Gambia	26	21[c]	0.8	3.0[d]	1.4	-4.1	..
Guinea	15[l]	15	3.9[m]	0.6	8.2	-9.0	14.0
Guinea-Bissau	30	16	5.8	1.2	..	..	..
Haiti	17	2[c]	-0.6	-45.7[d]	-8.3	-56.7	0.0
Kiribati	33	56[n]	..	..	..	..	..
Lao People's Dem. Republic	7[a]	13[o]	-2.7[p]	..	10.7[o]	..	..
Lesotho	42	87	6.9	12.1	6.8	31.0	12.1
Liberia	27	..	..	..	..	..	..
Madagascar	15	11	4.9	-4.5	8.7	-14.3	0.8
Malawi	25	15	-2.8	-11.2	-28.3	-29.0	34.3
Maldives	..	..	..	..	..	..	..
Mali	17	26	5.4	6.1	-2.3	23.7	4.4
Mauritania	36	15	-4.1	-1.3	21.0	-28.1	-5.9
Mozambique	22	60[c]	-2.5	8.6[d]	27.7	0.1	..
Myanmar	21	12[c]	..	..	10.7	16.6	..
Nepal	18	23	..	6.3	14.8	-2.2	4.1
Niger	37	6[g]	-5.9	0.3	..	..	..
Rwanda	16	13	3.7	-6.3	5.3	-50.0	70.0
Samoa	33	42[n]	-4.6[q]	..	..	..	..
Sao Tome and Principe	34	50[c]	8.4	0.9[d]	14.6	2.4	..
Sierra Leone	18	6	-6.5	-20.0	-31.8	-23.3	-36.2
Solomon Islands	36	29[r]	..	..	..	..	..
Somalia	42	16[r]	-2.6[k]	2.6[s]	..	..	..
Sudan	15	13[o]	-1.1	..	16.9[n]	..	..
Togo	30	14	2.9	-16.4	-41.8	-31.7	59.7
Tuvalu	..	..	..	..	..	..	..
Uganda	6	16	9.6[t]	7.9	5.5	9.6	38.5
United Rep. of Tanzania	29[u]	31	..	..	..	..	..
Vanuatu	28[a]	44[r]	6.1[t]	..	..	..	..
Yemen	11[r]	12[c]	..	..	..	..	..
Zambia	23	12	-2.7	-10.2	26.7	-24.7	-2.6
All LDCs	18	17	3.5	-1.1	-13.3	3.0	18.9

Source: UNCTAD calculations, based on data from the World Bank (*World Development Indicators 1997*).

a 1985. *b* 1985-1990. *c* 1994. *d* 1990-1994. *e* 1980-1988. *f* 1988. *g* 1993. *h* 1990-1993. *i* 1982. *j* 1989. *k* 1980-1989. *l* 1986. *m* 1986-1990. *n* 1992. *o* 1991. *p* 1984-1990. *q* 1980-1987. *r* 1990. *s* 1990-1992. *t* 1983-1990. *u* 1981.

7. Indicators on area and population

	Area			Population				
	Total	% of arable land and land under permanent crops	Density	Total	Urban	Activity rate[a]		
	(000 km²)	1994	Pop./km² 1995	(mill.) 1995	% 1995	M	F 1990	T
Afghanistan	652.1	12.4	31	20.1	20	52	29	41
Angola	1 246.7	2.8	9	11.1	32	51	43	47
Bangladesh	144.0	67.3	836	120.4	18	55	42	49
Benin	112.6	16.7	48	5.4	31	49	43	46
Bhutan	47.0	2.9	35	1.6	6	61	40	51
Burkina Faso	274.0	13.0	38	10.3	27	58	50	54
Burundi	27.8	42.4	230	6.4	8	56	52	54
Cambodia	181.0	21.2	57	10.3	21	49	52	50
Cape Verde	4.0	11.2	97	0.4	54	49	27	37
Central African Republic	623.0	3.2	5	3.3	39	54	45	49
Chad	1 284.0	2.5	5	6.4	21	55	42	49
Comoros	2.2	44.8	292	0.7	31	50	38	44
Dem. Rep. of the Congo	2 344.9	3.4	19	43.9	29	48	37	42
Djibouti	23.2	..	25	0.6	83	..	..	..
Equatorial Guinea	28.1	8.2	14	0.4	42	56	30	42
Eritrea	117.6	4.3	30	3.5	17	53	48	50
Ethiopia	1 104.3	10.0	50	55.1	13	52	37	44
Gambia	11.3	15.2	99	1.1	26	57	45	51
Guinea	245.9	3.0	27	6.7	30	51	47	49
Guinea-Bissau	36.1	9.4	30	1.1	22	58	38	48
Haiti	27.8	32.8	259	7.2	32	52	38	45
Kiribati	0.7	50.7	113	0.1	36	..	..	..
Lao People's Dem. Republic	236.8	3.8	21	4.9	22	54	46	50
Lesotho	30.4	10.5	68	2.1	23	52	29	40
Liberia	111.4	3.4	27	3.0	45	49	32	41
Madagascar	587.0	5.3	25	14.8	27	53	43	48
Malawi	118.5	14.3	94	11.1	14	51	48	49
Maldives	0.3	10.0	850	0.3	27	47	35	41
Mali	1 240.2	2.0	9	10.8	27	55	46	50
Mauritania	1 025.5	0.2	2	2.3	54	51	40	45
Mozambique	801.6	4.0	20	16.0	34	56	51	53
Myanmar	676.6	14.9	69	46.5	26	58	44	51
Nepal	147.2	16.7	149	21.9	14	56	38	47
Niger	1 267.0	2.8	7	9.2	17	55	42	49
Rwanda	26.3	44.4	302	8.0	6	54	50	52
Samoa	2.8	43.0	60	0.2	21	..	..	..
Sao Tome and Principe	1.0	42.7	138	0.1	46	..	..	..
Sierra Leone	71.7	7.5	63	4.5	36	49	26	37
Solomon Islands	28.9	2.0	13	0.4	17	53	50	52
Somalia	637.7	1.6	15	9.3	26	51	38	44
Sudan	2 505.8	5.2	11	28.1	25	53	20	36
Togo	56.8	42.8	73	4.1	31	51	33	42
Tuvalu	0.0	..	367	0.0	45	..	..	..
Uganda	241.0	28.2	88	21.3	13	53	48	51
United Republic of Tanzania	883.7	3.7	34	29.7	24	53	51	52
Vanuatu	12.2	11.8	14	0.2	19	..	..	..
Yemen	528.0	2.9	27	14.5	34	44	18	30
Zambia	752.6	7.0	13	9.5	43	47	37	42
ALL LDCs	20 529.3	6.0	29	588.5	22	53	40	47
All developing countries	82 170.8	10.2	55	4 526.1	38	57	37	47

Sources: United Nations, *Demographic Yearbook 1994; World Population Prospects 1994; World Urbanization Prospects 1994;* UNFPA, *The State of World Population 1995;* FAO, *Production Yearbook 1995;* and estimates by the Bureau of Statistics of the ILO.

a Economically active population as a percentage of total population of sex(es) specified of all ages.

8. Indicators on demography

Country	Infant mortality rate (per 1,000 live births)		Average life expectancy at birth (years)						Crude birth rate (per 1,000)		Crude death rate (per 1,000)	
	1985-1990	1995	1985-1990			1993[a]			1985-1990	1995[a]	1985-1990	1995[a]
			M	F	T	M	F	T				
Afghanistan	172	165	41	42	42	43	44	44	48	52	23	21
Angola	137	170	42	46	44	45	48	47	51	50	21	18
Bangladesh	119	85	53	53	53	56	56	56	37	35	14	11
Benin	90	85	44	48	46	46	50	48	49	48	19	17
Bhutan	143	122	47	50	48	49	52	51	40	39	17	15
Burkina Faso	138	86	45	49	47	46	49	48	47	46	19	18
Burundi	111	106	48	51	49	49	52	50	47	44	17	15
Cambodia	130	110	48	50	49	50	53	52	47	40	16	13
Cape Verde	58	54	62	64	63	64	66	65	36	36	10	9
Central African Republic	107	106	46	51	48	47	52	50	41	41	17	16
Chad	132	94	44	47	46	46	49	48	44	43	20	17
Comoros	99	85	54	55	54	56	57	56	49	49	13	12
Dem. Rep. of the Congo	99	119	50	53	52	50	54	52	48	46	15	14
Djibouti	122	113	45	49	47	47	50	48	42	38	18	16
Equatorial Guinea	127	113	44	48	46	46	50	48	44	44	20	18
Eritrea	117	114	46	50	48	49	52	50	45	42	17	14
Ethiopia	132	114	43	47	45	46	49	48	49	47	20	17
Gambia	143	80	41	45	43	44	47	45	47	42	21	18
Guinea	145	128	42	43	43	44	45	45	51	49	22	19
Guinea-Bissau	151	134	40	43	42	42	45	44	43	42	23	20
Haiti	97	71	53	56	55	55	59	57	36	35	13	11
Kiribati	69	57	52[b]	52[b]	52[b]	56	60	58	26[c]	33	9[c]	11
Lao People's Dem. Republic	110	91	47	50	49	50	53	51	45	43	17	14
Lesotho	89	105	56	61	58	58	63	61	39	36	11	9
Liberia	142	144	52	55	54	54	57	55	47	46	16	13
Madagascar	112	100	53	56	54	55	58	57	47	43	14	11
Malawi	151	138	46	47	46	45	46	46	52	49	20	20
Maldives	82	55	61	58	60	64	61	62	42	42	10	9
Mali	169	117	42	46	44	45	48	46	51	49	21	18
Mauritania	110	112	48	51	50	50	53	52	41	39	16	14
Mozambique	156	158	44	48	46	45	48	46	46	44	19	18
Myanmar	98	105	54	57	55	56	60	58	34	32	13	11
Nepal	110	81	52	50	51	54	53	54	40	38	15	12
Niger	135	191	43	46	45	45	48	47	56	52	20	18
Rwanda	115	80	47	50	48	46	49	47	45	44	17	17
Samoa	72	43	64	67	66	66	69	68	37	37	7	6
Sao Tome and Principe	..	63	..	..	..	..	..	67	..	43	..	9
Sierra Leone	179	164	36	39	37	38	41	39	49	48	27	24
Solomon Islands	32	25	67	71	69	68	73	70	39	37	5	4
Somalia	132	125	43	47	45	45	49	47	50	50	20	18
Sudan	85	69	50	52	51	52	55	53	42	39	14	13
Togo	94	80	51	55	53	53	57	55	45	43	14	12
Tuvalu	..	40	..	..	..	..	..	..	24[d]	25	10[d]	11
Uganda	120	111	45	48	47	43	46	45	52	50	18	20
United Republic of Tanzania	89	100	51	54	53	51	54	52	45	42	14	14
Vanuatu	57	44	61	65	63	64	67	65	37	35	8	7
Yemen	131	76	48	48	48	50	51	50	50	47	17	14
Zambia	109	114	51	53	52	48	49	49	47	43	14	16
ALL LDCs	119	106	49	51	50	50	53	52	44	42	16	14
All developing countries	77	67	59	62	61	60	63	62	31	28	10	9

Sources: United Nations, *World Population Prospects 1994;* UNICEF, *The State of the World's Children 1997;* UNDP, *Human Development Report 1996;* ESCAP, *Statistical Yearbook for Asia and the Pacific 1992;* World Bank, *World Development Report 1995;* and AsDB, *Key Indicators of Developing Asian and Pacific Countries 1995.*

a Or latest year available. *b* 1988. *c* 1985. *d* 1983.

9. Indicators on health

Country	Low birth-weight infants (percentage) 1990-1994[a]	Percentage of women attended during childbirth by trained personnel 1990-1996[a]	Percentage of children immunized against DPT (3 doses) 1994[a]
Afghanistan	20	9	12
Angola	19	15	31
Bangladesh	50	14	94
Benin	10	45	86
Bhutan	..	15	86
Burkina Faso	21	42	41
Burundi	14	19	47
Cambodia	..	47	53
Cape Verde	..	49	73
Central African Republic	15	46	40
Chad	11	15	18
Comoros	13	24	58
Dem. Republic of the Congo	15	..	29
Djibouti	9	79	57
Equatorial Guinea	10	58	60
Eritrea	13	21	36
Ethiopia	16	14	37
Gambia	10	44	78
Guinea	21	31	73
Guinea-Bissau	20	27	74
Haiti	15	21	30
Kiribati	..	..	62
Lao People's Dem. Republic	18	..	48
Lesotho	11	40	58
Liberia	..	58	19
Madagascar	17	57	66
Malawi	20	55	98
Maldives	20	61	96
Mali	17	24	39
Mauritania	11	40	50
Mozambique	20	25	55
Myanmar	16	57	77
Nepal	26	7	77
Niger	15	15	19
Rwanda	17	26	83
Samoa	4	52	93
Sao Tome and Principe	7	63	60
Sierra Leone	11	25	41
Solomon Islands	20	85	92
Somalia	16	2	18
Sudan	15	69	77
Togo	20	54	71
Tuvalu	..	..	82
Uganda	10	38	79
United Republic of Tanzania	14	53	83
Vanuatu	5	67	74
Yemen	19	16	44
Zambia	13	51	86
All LDCs	24	30	63
All developing countries	19	53	82

Sources: UNICEF, *The State of the World's Children 1997;* UNDP, *Human Development Report 1996;* and WHO, *Expanded Programme on Immunization 1996.*

a Or latest year available.

10. Indicators on nutrition and sanitation

Country	Total food supply (kilocalories per capita per day)		Percentage of population with access to safe water or adequate sanitation							
			Urban				Rural			
			Water		Sanitation		Water		Sanitation	
	1980	1992	1980	1994[a]	1980	1994[a]	1980	1994[a]	1980	1994[a]
Afghanistan	2 186	1 523	28	39	..	38	8	5	..	1
Angola	2 184	1 839	85	69	40	34	10	15	15	8
Bangladesh	1 902	2 019	26	100	21	77	40	97	1	30
Benin	2 186	2 532	26	41	48	54	15	53	4	6
Bhutan	..	..	50	75	..	66	5	54	..	18
Burkina Faso	1 668	2 387	27	78	38	42	31	70	5	11
Burundi	2 025	1 941	90	92	40	60	20	49	..	50
Cambodia	2 206	2 021	..	65	..	81	..	33	..	8
Cape Verde	2 716	2 805	100	70	34	40	21	34	10	10
Central African Republic	2 266	1 690	..	18	..	45	..	18	..	46
Chad	1 639	1 989	..	48	..	73	..	17	..	7
Comoros	1 760	1 897	..	98	..	90	..	66	..	80
Dem. Rep. of the Congo	2 078	2 060	43	37	..	23	5	23	10	4
Djibouti	1 782	2 338	50	77	43	77	20	100	20	100
Equatorial Guinea	..	..	47	88	99	61	..	100	..	48
Eritrea	..	..	..	..	..	..	..	7	..	7
Ethiopia	1 858	1 610	..	91	..	97	..	19	..	7
Gambia	2 023	2 360	85	67	..	83	..	48	..	23
Guinea	2 229	2 389	69	61	54	84	2	62	1	10
Guinea-Bissau	1 818	2 556	18	38	21	32	8	57	13	17
Haiti	2 067	1 706	48	37	39	42	8	23	10	16
Kiribati	2 656	2 651	93	100	87	100	25	100	80	100
Lao People's Dem. Rep.	2 443	2 259	21	40	..	70	12	39	..	13
Lesotho	2 222	2 201	37	14	13	1	11	64	14	7
Liberia	2 398	1 640	..	58	..	38	..	8	..	2
Madagascar	2 430	2 135	80	83	9	50	7	10	..	3
Malawi	2 251	1 825	77	52	100	70	37	44	81	51
Maldives	2 130	2 580	11	98	60	95	3	86	1	26
Mali	1 789	2 278	37	36	79	58	0	38	0	21
Mauritania	2 118	2 685	80	84	5	34	85	69	..	13
Mozambique	1 953	1 680	..	17	..	70	..	40	..	11
Myanmar	2 330	2 598	38	36	38	42	15	39	15	40
Nepal	1 863	1 957	83	66	16	51	7	41	1	16
Niger	2 229	2 257	41	46	36	71	32	55	3	4
Rwanda	2 048	1 821	48	75	60	77	55	62	50	56
Samoa	2 495	2 828	97	100	86	100	94	77	83	92
Sao Tome and Principe	2 121	2 129	..	33	..	8	..	45	..	13
Sierra Leone	2 008	1 694	50	58	31	17	2	21	6	8
Solomon Islands	2 289	2 173	91	82	82	73	20	58	10	2
Somalia	1 788	1 499	60	50	45	44	20	29	5	5
Sudan	2 244	2 202	100	66	63	79	31	45	0	4
Togo	2 264	2 242	70	74	24	57	31	58	l0	13
Tuvalu	..	..	..	100	..	90	..	95	..	85
Uganda	2 071	2 159	45	47	40	75	8	32	10	55
United Rep. of Tanzania	2 284	2 018	88	67	83	74	39	46	47	62
Vanuatu	2 577	2 739	65	100	95	82	53	64	68	33
Yemen	1 934	2 203	93	89	60	87	19	47	..	60
Zambia	2 196	1 931	65	64	100	40	32	27	48	10
All LDCs	2 050	2 025	51	63	44	59	24	48	12	23
All developing countries[b]	2 313	2 543	73	82	50	63	32	71	13	17

Sources: FAO, *Production Yearbook 1994;* WHO/UNICEF, *Water Supply and Sanitation Sector Monitoring Report 1993* and *1996;* WHO, *The International Drinking Water Supply and Sanitation Decade: End of Decade Review* (as at December 1990); *Review of National Progress* (various issues); and UNICEF, *The State of the World's Children 1996.*

a Or latest year available. *b* Average of countries for which data are available.

11. Indicators on education and literacy

Country	Adult literacy rate (%) 1995[a]			School enrolment ratio (% of relevant age group) Primary 1980			Primary 1993[b]			Secondary 1980			Secondary 1993[b]		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Afghanistan	47	15	32	54	12	34	46	16	31	16	4	10	22	8	15
Angola	29	56	42	187	163	175	95	87	91	32	9	20	15	10	12
Bangladesh	49	26	38	72	43	58	84	73	79	25	9	17	25	13	19
Benin	49	26	37	87	41	64	88	44	66	24	9	16	17	7	12
Bhutan	56	28	42	23	10	17	34	22	28	3	1	2	9	2	6
Burkina Faso	30	9	19	23	14	18	47	30	38	4	2	3	11	6	8
Burundi	49	23	35	32	21	26	76	62	69	4	2	3	8	5	7
Cambodia	48	22	35	..	..	..	..	..	..	..	..	..	..	..	..
Cape Verde	81	64	72	117	111	114	125	119	122	9	7	8	21	20	20
Central African Republic	69	52	60	92	51	71	88	55	71	21	7	14	17	6	12
Chad	62	35	48	52	19	36	80	38	59	9	1	5	13	2	8
Comoros	64	50	57	99	75	88	81	69	75	30	15	23	21	17	19
Dem. Rep. of the Congo	87	68	77	108	77	92	78	58	68	35	13	24	33	15	24
Djibouti	60	33	46	44	26	35	41	31	36	15	9	12	14	10	12
Equatorial Guinea	90	68	79	153	120	136	167	133	149	20	4	12	23	4	13
Eritrea	..	..	..	..	..	..	52	41	47	..	..	..	17	13	15
Ethiopia	46	25	36	45	25	35	27	19	23	11	6	9	12	11	11
Gambia	53	25	39	67	35	51	79	56	67	16	7	11	25	13	19
Guinea	50	22	36	48	25	36	61	30	46	24	10	17	17	6	12
Guinea-Bissau	68	43	55	94	42	68	77	42	60	10	2	6	9	4	7
Haiti	48	42	45	82	70	76	58	54	56	14	13	14	22	21	22
Kiribati	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lao People's Dem. Rep.	69	44	57	123	104	113	123	92	107	25	16	21	31	19	25
Lesotho	81	62	71	85	120	102	90	105	98	14	21	18	22	31	26
Liberia	54	22	38	62	34	48	45	25	35	31	12	22	22	9	16
Madagascar	88	73	80	145	139	142	75	72	73	35	24	29	14	14	14
Malawi	72	42	56	72	48	60	84	77	80	5	2	3	6	3	4
Maldives	93	93	93	153	139	146	136	133	134	4	5	4	49	49	49
Mali	39	23	31	34	19	27	38	24	31	12	5	9	12	6	9
Mauritania	50	26	38	47	26	37	76	62	69	17	4	11	19	11	15
Mozambique	58	23	40	114	84	99	69	51	60	8	3	5	9	6	7
Myanmar	89	78	83	93	89	91	107	104	105	25	19	22	23	23	23
Nepal	41	14	28	122	52	88	130	87	109	33	9	22	46	23	35
Niger	21	7	14	33	18	25	35	21	28	7	3	5	9	4	6
Rwanda	70	52	61	66	60	63	78	76	77	4	3	3	11	9	10
Samoa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sao Tome and Principe	76	47	60	..	..	..	..	..	..	..	..	..	..	..	..
Sierra Leone	45	18	31	61	43	52	60	42	51	20	8	14	22	12	17
Solomon Islands	..	..	..	83	65	74	102	87	94	22	9	16	21	13	17
Somalia	36	14	24	24	14	19	15	8	11	11	4	8	9	5	7
Sudan	58	35	46	59	41	50	59	45	52	20	12	16	24	19	21
Togo	67	37	52	146	91	118	122	81	102	51	16	33	34	12	23
Tuvalu	68	45	56	..	..	..	..	..	..	..	..	..	..	..	..
Uganda	74	50	62	56	43	50	74	59	67	7	3	5	14	8	11
United Rep. of Tanzania	79	57	68	99	86	93	71	69	70	4	2	3	6	5	5
Vanuatu	..	..	..	..	..	..	105	107	106	..	..	..	23	18	20
Yemen	53	26	39	72	16	45	111	43	79	11	3	7	47	10	29
Zambia	86	71	78	98	82	90	100	92	96	22	11	16	25	14	20
All LDCs[c]	59	38	49	78	54	66	75	59	67	20	9	14	21	12	17
All developing countries[c]	79	62	70	104	86	95	104	92	98	42	29	35	51	40	46

Sources: UNESCO, *Compendium of Statistics on Illiteracy* (1990 and 1995 editions); *Statistical Yearbook* (various issues); *Trends and Projections of Enrolment by Level of Education and by Age, 1960-2025* (as assessed in 1993); and ECA, *African Socio-economic Indicators, 1990-91.*

a Estimates. *b* Or latest year available. *c* Average of countries for which data are available.

12. Indicators on communications and media

Country	Post offices open to the public per 100,000 inhabitants 1980	Post offices open to the public per 100,000 inhabitants 1995[b]	Telephones per 1,000 inhabitants 1980	Telephones per 1,000 inhabitants 1994[b]	Radio receivers per 1,000 inhabitants 1980	Radio receivers per 1,000 inhabitants 1993[b]	Circulation of daily newspapers per 1,000 inhabitants 1980	Circulation of daily newspapers per 1,000 inhabitants 1992[b]
Afghanistan	..	1.7	2.0	1.7	75	118	6.0	12.0
Angola	1.4	0.6	5.1	5.2	21	29	20.0	12.0
Bangladesh	8.2	7.5	1.1	2.3	17	47	3.0	6.0
Benin	..	2.9	5.0[c]	4.6	66	91	0.3	2.0
Bhutan	6.3	6.3	..	3.1	6	17	..	..
Burkina Faso	1.2	0.7	1.5[c]	2.6	18	27	0.2	0.3
Burundi	0.4[d]	0.5	1.3[e]	2.6	39	62	0.2	3.0
Cambodia	..	..	..	0.5	92	108	..	..
Cape Verde	18.7[d]	14.1	5.7[f]	48.7	142	176	..	..
Central African Republic	3.1[e]	0.9	2.1[f]	2.3	52	72	..	1.0
Chad	0.5[e]	0.5	1.5[g]	0.8	168	245	0.2	0.4
Comoros	..	5.9	5.0[c]	6.8	120	129	..	..
Democratic Republic of the Congo	1.4	0.7	1.0	0.9	56	97	2.0	3.0
Djibouti	1.6	1.7	16.8	13.2	75	81	..	..
Equatorial Guinea	4.6[d]	5.9	..	6.4	401	422	7.0	3.0
Eritrea	..	1.0	..	4.4	..	..	..	..
Ethiopia	1.1[f]	1.0	2.3	2.6	82	197	1.0	1.0
Gambia	..	..	5.4[h]	16.9	114	162	..	2.0
Guinea	..	1.2	1.9[g]	1.4	30	43	..	..
Guinea-Bissau	..	2.4	..	8.3	31	40	8.0	6.0
Haiti	..	1.7	..	6.5	20	48	7.0	7.0
Kiribati	42.4	32.0	12.3	24.0	193	208	..	..
Lao People's Democratic Republic	2.1	2.5	2.1[g]	3.8	109	126	4.0	3.0
Lesotho	9.2	7.6	..	6.9	25	32	33.0	7.0
Liberia	2.6	..	..	1.7	179	227	6.0	13.0
Madagascar	85.6	5.5	4.3	2.4	177	192	6.0	4.0
Malawi	3.9	3.1	5.2	3.5	42	226	3.0	2.0
Maldives	5.8	88.0	6.8	48.2	44	118	6.0	13.0
Mali	1.9[d]	1.1	..	1.4	15	44	1.0	4.0
Mauritania	3.7	2.6	2.5[d]	3.8	97	147	..	0.5
Mozambique	4.8	2.4	4.5[f]	3.5	21	48	4.0	5.0
Myanmar	3.3	2.6	1.1[h]	2.9	23	82	10.0	7.0
Nepal	9.6	13.5	1.0[c]	3.6	20	35	8.0	7.0
Niger	2.7	0.7	1.7	1.3	45	61	1.0	1.0
Rwanda	..	0.0	0.9	1.9	34	66	0.1	0.1
Samoa	..	22.4	36.9	46.2	201	461	..	..
Sao Tome and Principe	55.9	8.3	15.1[f]	19.7	245	270	..	..
Sierra Leone	3.3[d]	1.2	..	3.6	139	233	3.0	2.0
Solomon Islands	..	36.8	..	16.3	88	121	..	..
Somalia	..	..	..	1.7	17	41	1.0	1.0
Sudan	4.0	1.5	3.4	2.3	187	257	6.0	24.0
Togo	15.2	1.2	3.8	5.4	203	211	6.0	3.0
Tuvalu	..	..	..	11.5	206	307	..	..
Uganda	..	1.4	3.6	1.9	30	107	2.0	4.0
United Republic of Tanzania	3.2	1.7	5.0	3.1	16	26	11.0	8.0
Vanuatu	5.3	..	23.2[c]	27.5	197	292	..	..
Yemen	2.4	3.1	..	13.6	28	30	12.0	19.0
Zambia	7.0[f]	2.2	10.7	8.7	24	82	19.0	8.0
All LDCs[a]	6.7	3.3	2.3	3.0	51	97	5.0	6.0
All developing countries[a]	13.1[i]	9.3	15.5	33.2	98	178	37.0	44.0

Sources: UNESCO, *Statistical Yearbook 1995;* Universal Postal Union, *Statistique des services postaux 1995;* ITU, *Statistical Yearbook 1994;* and other international and national sources.

a Average of countries for which data are available. *b* Or latest year available.
c 1978. *d* 1982. *e* 1983. *f* 1981. *g* 1977. *h* 1979. *i* Excluding China.

13. Indicators on transport and transport networks[a]

Country	Road networks			Railways				Civil aviation			
	Total	Paved	Density	Network	Density	Freight	Passenger	Freight		Passenger	
								Total	International	Total	International
	km	%	km/ 1,000 km²	km	km/ 1,000 km²	mio. ton km	mio. pass. km	thousand tons		thousands	
Afghanistan	21 000	13.3	32.2	..	..	..	..	9.9	9.5	174	65
Angola	72 626	25.0	58.3	2 523	2.0	1 890	360	..	..	1 334	310
Bangladesh	168 513	9.3	1 170.2	2 746	19.1	718	5 348	31.4	29.5	1 189	846
Benin	8 460	31.4	75.1	579	5.1	220	230	2.2	2.2	136	136
Bhutan	2 210	..	47.0	..	..	..	..	..	..	..	..
Burkina Faso	12 506	16.0	45.6	607	2.2	72	152	7.6	7.5	112	85
Burundi	14 480	7.1	520.2	..	..	..	..	16.0	16.0	62	62
Cambodia	35 769	7.5	197.6	601	3.3	34	80	..	..	..	..
Cape Verde	1 100	78.0	272.7	..	..	..	..	1.4	0.8	199	94
Central African Republic	23 810	1.8	38.2	..	..	..	..	3.5	3.5	47	43
Chad	32 700	0.8	25.5	..	..	..	..	5.5	5.4	57	49
Comoros	875	76.5	391.5	..	..	..	..	..	..	..	..
Dem. Rep. of the Congo	154 027	..	65.7	5 088	2.2	1 836	580	64.9	6.7	215	66
Djibouti	2 890	12.6	124.6	100	4.3	..	..	8.4	8.4	126	112
Equatorial Guinea	2 820	..	100.5	..	..	..	..	..	..	..	..
Eritrea	3 930	21.4	33.4	..	..	..	..	3.4	3.4	160	151
Ethiopia	28 360	15.0	25.7	781	0.7	103	185	32.9	31.3	844	627
Gambia	2 640	35.3	233.7	..	..	..	..	2.3	2.3	272	272
Guinea	30 270	16.4	123.1	940	3.8	660	116	4.7	4.6	253	182
Guinea-Bissau	4 350	10.2	120.4	..	..	..	..	0.3	0.3	21	21
Haiti	4 080	24.2	147.0	100	3.6	..	..	22.1	22.1	345	336
Kiribati	655	..	902.2	..	..	..	..	0.5	0.1	51	16
Lao People's Dem. Rep.	18 153	13.8	76.7	..	..	..	..	0.6	0.3	165	59
Lesotho	4 955	17.9	163.2	16	0.5	..	..	..	..	34	26
Liberia	10 300	6.1	92.5	493	4.4	..	..	..	..	..	..
Madagascar	49 837	11.5	84.9	1 030	1.8	93	46	9.7	7.9	446	184
Malawi	27 880	18.4	235.3	789	6.7	48	40	4.3	2.7	215	129
Maldives	..	..	..	..	..	..	..	17.1	17.0	847	696
Mali	14 776	12.0	11.9	642	0.5	4	9	10.2	9.7	176	164
Mauritania	7 600	11.2	7.4	650	0.6	16 623	7	1.7	1.6	212	68
Mozambique	29 810	18.6	37.2	3 150	3.9	1 420	500	12.0	2.8	415	193
Myanmar	27 600	12.1	40.8	2 775	4.1	648	4 675	7.5	3.4	1 368	244
Nepal	7 550	41.4	51.3	52	0.4	..	..	17.0	16.3	1 298	811
Niger	9 863	7.9	7.8	..	..	..	..	2.8	2.5	78	77
Rwanda	14 565	9.9	553.0	2 652	100.7	2 140	2 700	7.1	7.1	52	47
Samoa	781	42.0	275.9	..	..	..	..	..	..	..	..
Sao Tome and Principe	310	68.0	321.6	..	..	..	..	0.3	0.3	26	20
Sierra Leone	11 674	11.0	162.7	84	1.2	..	..	2.0	2.0	98	98
Solomon Islands	1 330	2.4	46.0	..	..	..	..	..	..	..	..
Somalia	23 000	12.2	36.1	..	..	..	..	2.0	1.9	136	110
Sudan	11 610	36.2	4.6	4 756	1.9	1 970	985	..	..	..	..
Togo	7 519	31.6	132.4	514	9.1	17	132	4.1	4.1	256	255
Tuvalu	8	..	307.7	..	..	..	..	..	..	..	..
Uganda	26 800	7.7	111.2	1 100	4.6	82	315	21.8	21.8	202	192
United Rep. of Tanzania	88 100	4.2	99.7	3 575	4.0	523	935	15.0	12.9	502	274
Vanuatu	1 050	23.8	86.1	..	..	..	..	..	..	..	..
Yemen	64 605	7.9	122.4	..	..	..	..	6.6	6.2	440	284
Zambia	38 898	18.3	51.7	1 924	2.6	1 625	547	6.8	6.2	368	235

Sources: IRU, *World Transport Statistics 1996;* IRF, *World Road Statistics 1997;* ICAO Digest of Statistics, *Airport Traffic* (various issues); ESCAP, *Statistical Yearbook for Asia and the Pacific 1992;* and national sources.

a Data refer to 1995 or latest year available.

14. Indicators on energy

Country	Coal, oil, gas and electricity		Fuelwood, charcoal and bagasse		Installed electricity capacity	
	Consumption per capita in kg. of coal equivalent				kw./1,000 inhabitants	
	1980	1994	1980	1994	1980	1994
Afghanistan	48	38	99	99	27	26
Angola	135	83	362	183	86	58
Bangladesh	45	88	23	24	11	25
Benin	52	46	347	344	4	3
Bhutan	9	58	777	262	10	224
Burkina Faso	29	46	277	312	6	8
Burundi	14	22	252	255	2	7
Cambodia	22	24	213	218	6	4
Cape Verde	194	147	..	..	10	18
Central African Republic	26	39	358	335	16	13
Chad	23	7	206	208	7	5
Comoros	48	52	..	..	13	8
Democratic Republic of the Congo	75	55	298	335	64	67
Djibouti	474	327	..	..	125	150
Equatorial Guinea	124	154	645	383	23	13
Eritrea	..	..	..	..	..	..
Ethiopia	21	29	296	285	8	9
Gambia	117	102	452	338	17	27
Guinea	103	82	246	221	37	27
Guinea-Bissau	81	104	177	134	9	10
Haiti	61	38	322	288	23	22
Kiribati	220	130	..	..	34	25
Lao People's Democratic Republic	34	36	354	308	55	54
Lesotho	..	..	..	..	..	..
Liberia	500	57	709	589	173	113
Madagascar	86	40	194	242	11	15
Malawi	56	36	288	314	24	17
Maldives	129	211	..	..	13	57
Mali	28	24	196	191	12	8
Mauritania	188	608	1	1	44	47
Mozambique	150	30	351	323	156	152
Myanmar	60	75	143	149	20	27
Nepal	17	34	305	282	5	14
Niger	48	57	191	200	6	7
Rwanda	28	32	292	232	8	4
Samoa	310	367	145	149	82	112
Sao Tome and Principe	213	292	..	..	53	46
Sierra Leone	80	45	709	237	31	29
Solomon Islands	212	199	..	126	53	33
Somalia	36	48[a]	192	315	7	8
Sudan	81	60	282	289	16	18
Togo	70	77	66	94	12	8
Tuvalu	..	..	..	..	..	..
Uganda	27	27	235	236	12	8
United Republic of Tanzania	46	36	331	392	22	15
Vanuatu	248	176	68	48	85	67
Yemen	187	328	45	8	20	58
Zambia	396	187	496	502	301	265
All LDCs	64	66	212	210	28	32
All developing countries	508	821	125	135	98	190

Source: United Nations, *Energy Statistics Yearbook 1994* and *Statistical Yearbook 1985/86.*

a 1989.

15. Indicators on the status of women in LDCs

Country	Education, training and literacy: Female-male gaps[a]				Health, fertility and mortality			Economic activity, employment					Political participation	
	Adult literacy rate	School enrolment ratio			Average age at first marriage (years)	Total fertility rate (births per woman	Maternal mortality (per 100,000 births)	Woman as a percentage of total:				Female labour force: Agricul-ture/ total	Legis-lators	Decision makers in all ministries
		Primary	Second-ary	Post-secondary				Labour force	Employ. ees	Self-employed	Unpaid family	(%)	(%)	(%)
	1995[b]		1993[c]		1990[c]	1995[c]	1993	1994[c]	1991[c]	1991[c]	1991[c]	1990	1995[c]	1995
Afghanistan	32	35	36	48	18	7	1 700	9	..	..	..	85	2	-
Angola	195	92	67	23	18	7	1 500	38	..	..	..	86	10	7
Bangladesh	53	87	52	19	18	4	850	41	14	4	6	74	11	5
Benin	53	50	41	15	18	7	990	47	..	..	..	65	6	15
Bhutan	50	65	22	33	..	6	1 600	32	..	..	..	98	-	13
Burkina Faso	31	64	55	27	18	6	930	45	13	16	66	94	4	11
Burundi	46	82	63	33	22	7	1 300	47	13	53	60	98	12	8
Cambodia	46	..	..	..	21	5	900	41	..	..	..	78	4	-
Cape Verde	78	95	95	..	24	4	200	32	32	46	54	32	8	13
Central African Republic	76	63	35	21	19	6	700	45	10	52	55	87	4	5
Chad	56	48	15	10	17	6	1 500	21	..	..	..	91	16	5
Comoros	79	85	81	22	20	7	950	38	24	25	..	91	2	7
Dem. Rep. of the Congo	78	74	45	21	20	7	870	35	..	..	..	81	5	3
Djibouti	54	76	71	50	19	6	570	40	33	28	22	..	-	-
Equatorial Guinea	76	80	17	15	..	6	820	40	..	..	..	91	8	4
Eritrea	..	79	76	..	..	6	..	..	..	..	..	85	..	..
Ethiopia	56	70	92	20	18	7	1 400	36	..	..	..	86	5	12
Gambia	47	71	52	..	..	5	1 100	39	..	..	..	92	8	22
Guinea	44	49	35	5	16	7	1 600	38	..	..	..	92	..	15
Guinea-Bissau	63	55	44	11	18	6	910	39	..	..	..	96	13	8
Haiti	88	93	95	38	24	5	1 000	41	44	38	37	57	3	17
Kiribati	..	..	..	..	..	..	..	14	..	..	..	..	-	..
Lao People's Dem. Rep.	64	75	61	43	..	6	650	45	..	..	..	81	9	-
Lesotho	77	117	141	125	21	5	610	43	38	24	39	59	11	7
Liberia	42	56	41	32	20	7	560	29	..	..	..	84	6	10
Madagascar	83	96	100	77	20	6	490	38	..	..	..	88	4	-
Malawi	58	92	50	42	18	7	560	40	13	57	58	95	6	5
Maldives	100	98	100	..	18	7	..	22	17	22	29	28	6	5
Mali	59	63	50	14	16	7	1 200	15	17	15	53	89	2	10
Mauritania	53	82	58	21	23	5	930	23	15	23	38	63	-	4
Mozambique	40	74	67	33	22	6	1 500	47	..	..	..	96	25	4
Myanmar	88	97	100	137	22	4	580	36	..	..	..	78	..	-
Nepal	34	67	50	32	18	5	1 500	32	15	36	55	98	3	-
Niger	32	60	44	14	16	7	1 200	47	15	17	24	97	4	10
Rwanda	74	97	82	20	21	6	1 300	46	15	33	70	98	4	8
Samoa	..	..	..	..	25	5	35	37	37	9	8	..	4	7
Sao Tome and Principe	62	..	..	..	16	..	..	..	32	26	54	..	11	-
Sierra Leone	40	70	55	21	18	6	1 800	32	20	24	74	81	..	4
Solomon Islands	..	85	62	..	21	5	..	36	20	39	..	85	2	-
Somalia	39	53	56	24	20	7	1 600	38	..	..	..	88	4	-
Sudan	60	76	79	88	24	6	660	23	..	..	..	84	8	-
Togo	55	66	35	13	20	6	640	35	15	48	54	65	1	4
Tuvalu	66	..	..	..	..	..	..	..	..	..	..	..	..	..
Uganda	68	80	57	42	19	7	1 200	40	..	..	..	88	17	13
United Rep. of Tanzania	72	97	83	25	21	6	770	47	..	..	..	91	11	16
Vanuatu	..	102	78	..	23	5	280	38	..	..	..	..	2	-
Yemen	49	39	21	40	18	7	1 400	12	8	13	68	88	1	-
Zambia	83	92	56	38	20	6	940	30	16	55	54	83	7	7
All LDCs[d]	65	80	59	40	19	6	1 022	37	..	..	..	83	8	6

Sources: UNDP, *Human Development Report 1996;* United Nations, *The World's Women 1970-1990: Trends and Statistics; Women's Indicators and Statistics* (Wistat); UNESCO, *Statistical Yearbook* (various issues); UNICEF, *The State of the World's Children 1997;* and estimates by the Bureau of Statistics of the ILO.

a Females as percentage of males. *b* Estimates. *c* Or latest year available. *d* Average of countries for which data are available.

16. Leading exports of all LDCs in 1993-1994

SITC	Item	Value[a] (million dollars)	As percentage of LDCs	As percentage of Developing countries	As percentage of World
	All commodities	14 153.4	100.00	1.44	0.37
333	Petroleum oils, crude and crude oils obtained from bituminous minerals	2 787.1	19.69	1.96	1.54
667	Pearls, precious and semi-precious stones	898.1	6.35	11.35	2.78
682	Copper	881.5	6.23	11.27	3.73
263	Cotton	745.6	5.27	17.53	9.15
036	Crustaceans and molluscs, fresh, chilled, frozen, salted, in brine or dried	664.9	4.70	6.52	4.42
071	Coffee and coffee substitutes	545.9	3.86	6.66	5.22
844	Under garments of textile fabrics	447.1	3.16	5.49	4.03
843	Outer garments, women's, of textile fabrics	405.8	2.87	2.18	1.22
524	Radioactive and associated materials	384.1	2.71	58.67	7.03
846	Under garments, knitted or crocheted	372.7	2.63	3.73	2.09
247	Other wood in the rough or roughly squared	369.4	2.61	13.07	4.35
287	Ores and concentrates of base metals, n.e.s.	358.5	2.53	5.73	2.87
121	Tobacco, unmanufactured	328.3	2.32	11.90	6.46
842	Outer garments, men's, of textile fabrics	278.7	1.97	2.01	1.16
659	Floor coverings	271.9	1.92	8.46	3.07
689	Miscellaneous non-ferrous	265.0	1.87	47.59	11.53

Source: UNCTAD secretariat computations, based on data from the Statistics Division of the United Nations.
a Annual average.

17. Main markets for exports of LDCs: Percentage shares in 1995 (or latest year available)

	Developed market economy countries					Countries in Eastern Europe	Developing countries			Other and unallocated
	Total	European Union	Japan	USA and Canada	Others		Total	OPEC	Other	
Afghanistan	22.9	13.7	0.7	3.3	5.2	9.2	68.0	0.7	67.3	0.0
Angola	88.9	22.8	0.4	65.6	0.0	0.2	11.0	0.0	11.0	0.0
Bangladesh	82.7	44.3	3.3	34.0	1.2	1.5	15.4	2.0	13.4	0.3
Benin	37.4	32.2	0.0	4.7	0.5	0.0	62.6	12.1	50.5	0.0
Bhutan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Burkina Faso	31.7	30.7	1.0	0.0	0.0	0.0	40.6	1.5	39.1	27.7
Burundi	73.4	63.1	0.0	7.9	2.5	0.0	24.1	0.0	24.1	2.5
Cambodia	18.4	14.0	2.0	1.8	0.6	0.0	81.6	2.3	79.2	0.0
Cape Verde	69.2	69.2	0.0	0.0	0.0	0.0	30.8	7.7	23.1	0.0
Central African Republic	57.8	57.8	0.0	0.0	0.0	0.0	4.8	0.0	4.8	37.4
Chad	70.7	65.7	2.1	2.1	0.7	0.0	29.3	1.4	27.9	0.0
Comoros	90.9	72.7	0.0	18.2	0.0	0.0	9.1	0.0	9.1	0.0
Dem. Republic of the Congo	85.7	60.3	5.0	19.2	1.3	0.1	14.2	0.5	13.7	0.0
Djibouti	8.3	8.3	0.0	0.0	0.0	0.0	91.7	2.8	88.9	0.0
Equatorial Guinea	87.8	36.7	16.7	34.4	0.0	0.0	12.2	0.0	12.2	0.0
Eritrea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethiopia	83.1	62.3	12.4	8.0	0.4	0.7	15.3	5.3	10.0	0.9
Gambia	59.4	26.6	29.7	3.1	0.0	0.0	40.6	4.7	35.9	0.0
Guinea	82.8	64.6	1.8	15.4	1.0	1.1	16.1	0.3	15.9	0.0
Guinea-Bissau	54.7	54.7	0.0	0.0	0.0	0.0	45.3	0.0	45.3	0.0
Haiti	97.0	19.5	0.6	75.1	1.8	0.0	3.0	0.0	3.0	0.0
Kiribati	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Laos	38.8	25.9	7.8	3.4	1.7	0.3	60.9	0.0	60.9	0.0
Lesotho	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liberia	74.1	72.1	0.0	1.3	0.6	12.1	13.6	0.0	13.6	0.0
Madagascar	86.4	69.1	5.4	11.4	0.5	1.0	12.6	0.5	12.1	0.0
Malawi	58.0	34.1	10.0	9.5	4.3	2.5	32.7	0.0	32.7	6.8
Maldives	64.0	38.0	6.0	20.0	0.0	0.0	36.0	0.0	36.0	0.0
Mali	41.6	35.4	0.8	4.5	0.8	0.4	56.4	1.6	54.7	1.6
Mauritania	84.3	55.8	27.2	1.2	0.0	0.0	15.1	0.0	15.1	0.7
Mozambique	65.1	38.6	12.9	11.6	2.1	0.0	29.5	4.6	24.9	5.4
Myanmar	21.4	6.3	7.1	7.3	0.7	0.1	77.1	2.6	74.5	1.4
Nepal	89.7	54.2	0.6	31.2	3.6	0.0	10.3	0.0	10.3	0.0
Niger	82.0	76.4	0.0	4.3	1.2	0.0	18.0	4.3	13.7	0.0
Rwanda	39.0	37.7	0.0	1.3	0.0	1.3	47.4	0.0	47.4	12.3
Samoa	96.6	1.7	1.7	1.7	91.5	0.0	3.4	0.0	3.4	0.0
Sierra Leone	76.7	51.1	2.3	22.6	0.8	1.5	10.5	0.0	10.5	11.3
Solomon Islands	75.9	12.0	57.6	3.2	3.2	0.0	24.1	0.0	24.1	0.0
Somalia	14.2	14.2	0.0	0.0	0.0	0.0	85.8	67.1	18.7	0.0
Sudan	46.2	33.3	6.9	4.1	1.6	1.6	52.1	18.1	33.9	0.2
Sao Tome and Principe	83.3	83.3	0.0	0.0	0.0	0.0	16.7	0.0	16.7	0.0
Togo	38.9	18.6	0.0	17.2	3.1	1.4	56.4	7.2	49.2	3.3
Tuvalu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uganda	88.0	79.3	2.1	3.9	2.7	5.4	6.6	0.6	6.0	0.0
United Republic of Tanzania	50.5	38.0	8.2	3.5	0.8	0.8	45.6	5.7	39.9	3.1
Vanuatu	82.1	42.9	25.0	0.0	14.3	0.0	17.9	0.0	17.9	0.0
Yemen	13.8	1.1	12.3	0.3	0.0	0.0	86.2	3.0	83.2	0.0
Zambia	38.0	16.9	17.9	2.9	0.3	0.1	61.7	13.8	47.9	0.2
All LDCs	63.7	35.9	6.1	20.5	1.2	1.1	34.0	3.1	30.9	1.3
All developing countries	55.0	21.6	10.1	21.1	2.2	4.5	38.0	2.9	35.1	2.5

Sources: IMF, *Direction of Trade Statistics Yearbook 1996*, and other international and national sources.

18. Main sources of imports of LDCs: Percentage shares in 1995 (or latest year available)

	Developed market economy countries					Countries in Eastern Europe	Developing countries			Other and unallocated
	Total	European Union	Japan	USA and Canada	Others		Total	OPEC	Other	
Afghanistan	47.8	17.6	27.0	2.6	0.6	7.6	44.6	1.5	43.1	0.0
Angola	82.3	63.0	1.6	16.0	1.7	0.1	17.6	0.1	17.6	0.0
Bangladesh	30.9	11.8	9.2	7.0	2.9	1.8	58.2	4.5	53.7	9.1
Benin	63.0	54.7	2.2	5.5	0.6	0.6	36.0	0.5	35.5	0.4
Bhutan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Burkina Faso	34.8	29.7	2.4	2.3	0.3	1.1	36.3	2.6	33.6	27.8
Burundi	51.1	41.5	6.7	2.2	0.7	1.9	47.0	6.3	40.7	0.0
Cambodia	16.1	7.3	5.4	2.1	1.3	0.1	83.8	3.6	80.2	0.0
Cape Verde	78.9	75.8	0.0	2.8	0.3	1.7	17.0	0.0	17.0	2.4
Central African Republic	76.7	49.2	24.3	2.6	0.5	0.0	12.7	0.5	12.2	10.6
Chad	58.6	48.9	2.7	7.0	0.0	0.0	41.4	7.0	34.4	0.0
Comoros	71.9	69.3	2.0	0.7	0.0	0.0	28.1	0.7	27.5	0.0
Dem. Republic of the Congo	49.9	38.8	1.0	9.1	1.0	0.1	50.0	4.8	45.2	0.0
Djibouti	41.6	33.3	4.9	3.0	0.5	0.0	57.0	7.4	49.5	1.4
Equatorial Guinea	74.3	69.4	0.0	4.2	0.7	0.0	25.7	0.0	25.7	0.0
Eritrea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethiopia	73.8	50.5	8.8	12.4	2.1	2.1	23.0	5.3	17.7	1.1
Gambia	37.0	32.6	1.9	2.2	0.3	1.3	61.7	0.3	61.4	0.0
Guinea	59.8	47.1	2.8	8.6	1.4	0.2	39.9	2.5	37.4	0.0
Guinea-Bissau	53.8	46.2	6.3	0.7	0.7	0.0	43.4	0.0	43.4	2.8
Haiti	86.3	13.9	4.5	67.2	0.6	0.0	13.7	0.4	13.3	0.0
Kiribati	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lao People's Dem. Republic	18.9	10.3	4.8	0.3	3.5	0.0	80.9	0.0	80.9	0.2
Lesotho	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liberia	67.1	32.7	32.7	0.8	1.0	0.7	32.2	0.3	31.9	0.0
Madagascar	63.8	53.9	5.3	3.3	1.3	0.3	35.8	5.9	29.8	0.2
Malawi	23.8	17.3	2.3	3.8	0.5	0.0	71.1	0.0	71.1	5.0
Maldives	21.0	14.3	3.9	0.8	2.0	0.0	79.0	28.6	50.4	0.0
Mali	35.1	30.0	1.4	3.1	0.6	0.1	60.7	0.2	60.6	4.1
Mauritania	67.0	53.6	5.0	7.9	0.5	0.5	23.6	5.5	18.1	9.0
Mozambique	27.5	19.1	1.6	5.6	1.1	0.1	72.5	9.5	63.0	0.0
Myanmar	16.2	7.3	7.5	0.8	0.5	0.6	83.1	2.2	80.9	0.1
Nepal	27.9	10.2	8.9	2.0	6.8	0.0	72.1	0.1	72.0	0.0
Niger	42.3	31.6	1.8	8.3	0.6	0.2	29.2	0.9	28.3	28.3
Rwanda	54.5	34.2	5.8	13.8	0.6	0.0	33.5	0.9	32.6	12.0
Samoa	82.5	1.4	21.0	5.6	54.5	0.0	17.5	0.0	17.5	0.0
Sierra Leone	56.6	46.4	0.7	7.3	2.2	1.8	39.8	3.6	36.1	1.8
Solomon Islands	66.4	2.9	10.0	2.1	51.4	0.0	33.6	0.0	33.6	0.0
Somalia	15.1	11.1	0.4	3.7	0.0	0.0	76.8	8.9	67.9	8.1
Sudan	37.2	29.4	2.5	3.7	1.6	2.3	60.5	31.1	29.4	0.0
Sao Tome and Principe	83.0	76.6	2.1	4.3	0.0	2.1	14.9	0.0	14.9	0.0
Togo	32.2	28.1	1.6	2.1	0.4	0.2	67.4	2.4	65.0	0.2
Tuvalu	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uganda	49.9	36.1	8.0	4.6	1.1	0.1	50.0	3.0	47.0	0.0
United Republic of Tanzania	42.1	28.6	7.2	5.0	1.3	0.1	54.6	12.6	42.0	3.2
Vanuatu	83.1	9.2	43.7	0.7	29.6	0.0	16.2	0.0	16.2	0.7
Yemen	36.3	23.5	4.0	8.1	0.7	1.5	62.2	29.3	32.9	0.0
Zambia	45.2	26.7	8.6	8.0	1.9	0.3	54.2	0.3	53.9	0.1
All LDCs	46.0	28.0	9.6	6.5	1.9	0.8	50.1	5.2	45.0	3.1
All developing countries	59.3	24.3	14.4	17.2	3.4	4.9	34.1	4.2	29.9	1.7

Sources: IMF, *Direction of Trade Statistics Yearbook 1996,* and other international sources.

19. Composition of total financial flows to all LDCs in current and in constant dollars

(Net disbursements)

	Millions of current dollars					*Millions of 1980 dollars*[f]				
	1985	*1990*	*1993*	*1994*	*1995*	*1985*	*1990*	*1993*	*1994*	*1995*
Concessional loans & grants	10 049	16 289	15 171	16 277	16 610	11 372	14 131	13 336	13 912	12 777
Of which:										
DAC	8 511	15 439	15 046	16 202	16 634	9 631	13 394	13 226	13 848	12 795
- Bilateral	5 288	9 305	8 656	9 346	8 914	5 984	8 073	7 609	7 988	6 857
- Multilateral[a]	3 223	6 134	6 389	6 856	7 720	3 647	5 321	5 616	5 860	5 938
- Grants	6 215	11 189	11 832	12 594	12 609	7 033	9 707	10 401	10 764	9 699
- Loans	2 296	4 250	3 214	3 608	4 025	2 598	3 687	2 825	3 084	3 096
- Technical assistance	2 129	3 285	3 722	3 324	3 742	2 409	2 850	3 272	2 841	2 878
- Other[b]	6 382	12 154	11 323	12 878	12 891	7 222	10 544	9 953	11 007	9 916
OPEC	684	580	71	60	..	774	503	62	51	..
- Bilateral	610	569	37	36	4	690	493	33	31	3
- Multilateral[c]	74	12	34	24	..	83	10	30	21	..
- Grants	430	519	78	52	..	487	450	69	44	..
- Loans	254	61	-7	8	..	287	53	-6	7	..
Non-concessional flows	392	873	642	-194	-610	443	761	564	-166	-469
Of which:										
DAC	389	854	544	-169	-623	440	741	478	-144	-479
- Bilateral official	473	661	267	433	-89	535	573	235	370	-68
- Multilateral[a]	232	42	-84	-129	-52	263	37	-74	-110	-40
- Export credits[d]	-308	-488	-621	-1093	-382	-349	-424	-546	-934	-294
- Direct investment	-65	310	30	382	118	-73	269	26	326	91
- Other[e]	57	329	953	237	-218	65	285	838	203	-168
Total financial flows	10 441	17 162	15 813	16 083	16 000	11 816	14 891	13 900	13 746	12 308

Source: UNCTAD secretariat calculations, mainly based on OECD/DAC data.

a From multilateral agencies mainly financed by DAC member countries.

b Grants (excluding technical assistance grants) and loans.

c From multilateral agencies mainly financed by OPEC member countries.

d Guaranteed private.

e Bilateral financial flows originating in DAC countries and their capital markets in the form of bond lending and bank lending (either directly or through syndicated "Eurocurrency credits"). Excludes flows that could not be allocated by recipient country.

f The deflator used is the unit value index of imports.

20. Distribution of financial flows to LDCs and to all developing countries, by type of flow

(Percentage)

	To least developed countries					*To all developing countries*				
	1985	*1990*	*1993*	*1994*	*1995*	*1985*	*1990*	*1993*	*1994*	*1995*
Concessional loans & grants	96.2	94.9	95.9	101.2	103.8	71.2	71.2	42.9	37.5	37.0
Of which:										
DAC	81.5	90.0	95.1	100.7	104.0	59.9	62.9	41.9	36.8	36.7
- Bilateral	50.6	54.2	54.7	58.1	55.7	42.3	46.2	29.3	25.0	24.9
- Multilateral[a]	30.9	35.7	40.4	42.6	48.2	17.6	16.7	12.7	11.8	11.8
- Grants	59.5	65.2	74.8	78.3	78.8	42.8	47.1	32.2	27.5	28.4
- Loans	22.0	24.8	20.3	22.4	25.2	17.1	15.8	9.7	9.3	8.3
- Technical assistance	20.4	19.1	23.5	20.7	23.4	17.8	18.2	13.8	10.2	11.2
- Other[b]	61.1	70.8	71.6	80.1	80.6	42.1	44.7	28.1	26.7	25.5
OPEC	6.5	3.4	0.4	0.4	..	6.9	7.3	0.8	0.6	..
- Bilateral	5.8	3.3	0.2	0.2	-	6.6	7.2	0.7	0.5	0.3
- Multilateral[c]	0.7	-	0.2	0.1	..	0.3	-	0.1	0.2	..
- Grants	4.1	3.0	0.5	0.3	..	5.8	7.2	0.8	0.4	..
- Loans	2.4	0.4	-	-	..	1.1	0.1	-	0.2	..
Non-concessional flows	3.8	5.1	4.1	-1.2	-3.8	28.8	28.8	57.1	62.5	63.0
Of which:										
DAC	3.7	5.0	3.4	-1.1	-3.9	28.1	28.7	57.1	62.4	63.0
- Bilateral official	4.5	3.8	1.7	2.7	-0.6	8.1	9.9	5.6	5.2	5.2
- Multilateral[a]	2.2	0.2	-0.5	-0.8	-0.3	16.6	12.7	5.4	2.2	2.6
- Export credits[d]	-3.0	-2.8	-3.9	-6.8	-2.4	2.9	-1.0	0.2	5.2	3.2
- Direct investment	-0.6	1.8	0.2	2.4	0.7	13.3	30.9	28.4	30.1	32.9
- Other[e]	0.5	1.9	6.0	1.5	-1.4	-12.7	-23.8	17.5	19.7	19.1
Total financial flows	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

For sources and notes, see table 19.

21. Share of LDCs in financial flows to all developing countries, by type of flow
(*Percentage*)

	1985	*1990*	*1993*	*1994*	*1995*
Concessional loans & grants	31.4	28.4	27.5	27.3	28.0
Of which:					
DAC	31.5	30.5	27.8	27.7	28.3
- Bilateral	27.7	25.0	22.9	23.6	22.4
- Multilateral[a]	40.6	45.7	39.2	36.5	40.8
- Grants	32.2	29.5	28.5	28.9	27.7
- Loans	29.7	33.4	25.6	24.4	30.5
- Technical assistance	26.5	22.4	20.9	20.6	20.8
- Other[b]	33.7	33.8	31.2	30.4	31.6
OPEC	22.0	9.8	6.6	5.9	..
- Bilateral	20.5	9.8	4.1	4.8	0.8
- Multilateral[c]	57.7	15.4	18.7	9.1	..
- Grants	16.4	8.9	7.5	8.0	..
- Loans	52.2	68.8	-	2.0	..
Non-concessional flows	3.0	3.8	0.9	-	-
Of which:					
DAC	3.1	3.7	0.7	-	-
- Bilateral official	12.9	8.3	3.7	5.2	-
- Multilateral[a]	3.1	0.4	-	-	-
- Export credits[d]	-	62.7	-	-	-
- Direct investment	-	1.2	-	0.8	0.2
- Other[e]	-	-1.7	4.2	0.8	-
Total financial flows	23.2	21.3	12.3	10.1	10.0

Note: No percentage is shown when either the net flow to all LDCs or the net flow to all developing countries in a particular year is negative.
For other notes and sources, see table 19.

22. Net ODA[a] from individual DAC member countries to LDCs as a group

Donor country[b]	*% of GNP*				*Millions of dollars*				*% change*
	1990	*1993*	*1994*	*1995*	*1990*	*1993*	*1994*	*1995*	*1995/1990*
Norway	0.55	0.46	0.41	0.31	555	464	462	484	-12.8
Denmark	0.40	0.38	0.33	0.29	487	497	472	498	2.3
Netherlands	0.30	0.23	0.21	0.22	847	706	696	906	6.9
Sweden	0.36	0.34	0.25	0.21	818	618	509	492	-39.9
Portugal	0.16	0.19	0.19	0.14	106	189	187	170	60.9
Ireland	0.06	0.08	0.10	0.12	23	35	44	66	188.4
France	0.18	0.15	0.12	0.11	2 193	1 887	1 653	1 767	-19.4
Luxembourg[c]	0.07	0.12	0.11	..	8	17	16	..	..
Switzerland	0.14	0.11	0.11	0.10	323	271	312	331	2.5
Belgium	0.19	0.14	0.09	0.09	377	291	220	261	-30.8
Finland	0.26	0.12	0.10	0.08	339	99	101	102	-70.0
Canada	0.13	0.11	0.10	0.08	735	579	547	466	-36.5
Germany	0.12	0.10	0.08	0.07	1 768	1 931	1 729	1 611	-8.9
United Kingdom	0.09	0.08	0.08	0.07	881	797	870	824	-6.4
Australia	0.06	0.07	0.07	0.06	178	193	231	206	15.5
Total DAC	0.09	0.08	0.07	0.06	15 345	14 293	13 702	13 268	-13.5
Japan	0.06	0.05	0.05	0.05	1 698	2 189	2 245	2 527	48.8
New Zealand	0.05	0.05	0.05	0.05	19	20	22	26	32.8
Austria	0.07	0.06	0.06	0.04	110	115	112	104	-5.4
Spain	0.04	0.03	0.02	0.04	203	144	104	220	8.3
Italy	0.13	0.08	0.04	0.03	1 421	831	462	387	-72.8
United States	0.04	0.04	0.04	0.02	2 256	2 422	2 709	1 821	-19.3

Source: UNCTAD secretariat calculations, based on information from the OECD/DAC secretariat.

a Including imputed flows through multilateral channels.

b Ranked in descending order of the ODA/GNP ratio in 1995.

c Ranked according to its ODA/GNP ratio in 1994.

23. Bilateral ODA from DAC member countries and total financial flows from multilateral agencies[a] to all LDCs

(Millions of dollars)

	Net disbursements					*Commitments*				
	1985	*1990*	*1993*	*1994*	*1995*	*1985*	*1990*	*1993*	*1994*	*1995*
A. Bilateral donors										
Australia	58.2	104.5	103.2	140.0	139.4	59.1	97.0	79.9	92.6	156.0
Austria	11.8	60.6	61.6	68.0	70.6	11.6	130.6	96.5	58.5	69.7
Belgium	174.0	263.4	173.0	169.0	148.9	81.0	263.4	221.9	173.9	153.8
Canada	315.7	360.7	253.0	244.7	224.5	340.9	338.0	194.3	177.9	225.1
Denmark	125.4	293.6	313.9	313.6	332.7	146.4	269.2	248.2	201.6	238.4
Finland	60.5	192.8	59.9	75.0	65.2	127.7	127.1	74.0	75.6	44.5
France	643.8	1 626.8	1 323.4	1 170.5	1197.7	759.8	1 331.3	948.1	951.1	1 438.1
Germany	570.3	1 080.1	1 115.6	1 099.8	1083.0	831.0	1 232.9	1239.4	979.1	1 222.8
Ireland	10.4	13.9	25.3	35.8	55.7	10.4	13.9	25.3	-	-
Italy	404.4	923.0	536.4	332.2	269.7	525.5	799.8	815.2	308.5	504.8
Japan	551.5	985.1	1 196.4	1 474.7	1603.2	626.3	1 043.9	1413.3	1 795.4	1 757.6
Luxembourg	-	6.0	12.4	15.9	..	-	-	-	-	-
Netherlands	252.6	568.6	475.2	496.0	658.7	249.1	666.1	465.6	430.6	666.1
New Zealand	7.0	13.3	15.0	16.3	20.7	12.2	9.7	12.5	15.1	-
Norway	154.9	354.5	316.3	363.2	370.2	150.6	186.2	304.8	318.6	391.8
Portugal	-	105.2	176.4	171.6	159.5	-	-	86.0	134.2	103.9
Spain	-	91.1	66.2	38.4	117.2	-	-	-	1.3	7.3
Sweden	200.8	530.2	436.8	378.8	354.6	210.0	332.4	255.5	209.2	190.2
Switzerland	83.4	219.6	197.2	230.7	240.5	130.1	213.7	167.9	211.2	150.6
United Kingdom	280.2	471.4	414.3	572.1	556.1	226.5	478.1	514.9	595.3	571.2
United States	1 383.0	1 041.0	1 385.0	1 939.0	1 246.0	1 315.9	1 107.6	1 450.3	2 069.8	1 455.6
Total bilateral concessional	5 287.9	9 305.4	8 656.5	9 345.3	8 914.1	5 814.1	8 640.9	8 613.6	8 799.5	9 347.5
B. Multilateral donors										
1. Concessional										
AfDF	171.2	535.5	563.1	426.3	449.3	337.6	807.9	663.8	6.6	-
AsDB	229.6	448.1	345.3	463.6	410.3	383.7	536.4	440.6	402.1	400.5
EEC (EDF)	548.8	1 144.7	1 320.8	1 345.3	1 489.9	575.9	764.1	1 403.7	2 053.2	1 741.0
IBRD	0.4	-	-	-	-	-	-	-	-	-
IDA	1 151.9	2 026.0	1 957.8	2 152.0	1 790.8	1 550.0	2 859.0	1 886.5	2 614.9	2 020.9
IDB	10.7	11.7	0.0	-15.5	67.4	24.7	56.0	-	-	181.1
IFAD	107.5	119.1	45.4	39.9	52.3	83.2	71.9	15.3	88.7	124.0
IMF Trust fund	-103.1	-	-	-	-	-	-	-	-	-
IMF (SAF/ESAF)	-	270.3	93.9	238.1	1 341.5	-	-	-	-	-
UN:	1 106.2	1 578.2	2 063.2	2 194.8	2 095.1	1 106.3	1 578.3	2 063.1	2 194.8	2 095.2
Of which:										
UNDP	270.7	444.4	389.7	341.9	342.3					
UNHCR	201.1	192.6	289.2	492.5	406.6					
UNICEF	124.7	227.6	325.5	353.3	342.3					
UNTA	60.9	57.6	91.7	65.2	146.9					
WFP	343.0	489.6	843.1	800.4	700.0					
Total	3 223.2	6 133.6	6 389.5	6 856.0	7 719.9	4 061.4	6 673.6	6 473.0	7 360.3	6 562.7
2. Non-concessional										
AfDB	1 38.1	106.9	22.9	-7.6	26.9					
AsDB	-0.9	-0.5	-0.6	-1.0	-1.1					
EEC (EDF)	19.4	-9.6	-12.9	-13.8	-6.6					
IBRD	55.4	-69.0	-106.7	-105.1	-111.8					
IFC	20.4	14.7	12.9	-1.7	40.3					
Total	232.4	42.5	-84.4	-129.2	-52.3					
Total concessional (A + B.1)	8 511.1	15 439.0	15 046.0	16 201.3	16 634.0					
Grand total	8 743.5	15 481.5	14 961.6	16 072.1	16 581.7	9 875.5	15 314.5	15 086.6	16 159.8	15 910.2

Source: UNCTAD secretariat, based on information from the OECD/DAC secretariat.

a Multilateral agencies mainly financed by DAC countries.

24. ODA to LDCs from DAC member countries and multilateral agencies mainly financed by them: Distribution by donor and shares allocated to LDCs in total ODA flows to all developing countries

(Percentage)

	Distribution by donor					*Share of LDCs in ODA flows to all developing countries*				
	1985	*1990*	*1993*	*1994*	*1995*	*1985*	*1990*	*1993*	*1994*	*1995*
Bilateral donors										
Australia	0.7	0.7	0.7	0.9	0.8	10.9	13.9	14.4	17.0	15.1
Austria	0.1	0.4	0.4	0.4	0.4	6.9	20.6	15.3	12.8	12.7
Belgium	2.0	1.7	1.1	1.0	0.9	63.2	48.1	37.0	39.3	29.4
Canada	3.7	2.3	1.7	1.5	1.4	31.7	21.4	15.7	17.3	16.3
Denmark	1.5	1.9	2.1	1.9	2.0	54.9	42.2	41.7	39.8	38.3
Finland	0.7	1.2	0.4	0.5	0.4	47.4	38.8	24.9	35.3	29.7
France	7.6	10.5	8.8	7.2	7.2	26.9	29.1	21.6	17.8	18.7
Germany	6.7	7.0	7.4	6.8	6.5	29.6	24.7	25.1	26.4	22.6
Ireland	0.1	-	0.2	0.2	0.3	60.5	60.8	62.8	62.3	65.6
Italy	4.8	6.0	3.6	2.1	1.6	51.9	44.6	28.4	18.2	34.1
Japan	6.5	6.4	8.0	9.1	9.7	21.6	14.5	14.9	15.5	15.4
Luxembourg	-	-	-	-	-	-	39.9	39.6	39.7	..
Netherlands	3.0	3.7	3.2	3.1	4.0	33.4	31.1	27.1	29.8	30.1
New Zealand	-	-	-	0.1	0.1	16.4	16.4	20.4	19.2	21.3
Norway	1.8	2.3	2.1	2.2	2.2	47.3	46.8	49.1	44.9	41.8
Portugal	-	0.7	1.2	1.1	1.0	-	96.6	92.6	79.8	93.7
Spain	-	0.6	0.4	0.2	0.7	-	14.4	7.1	4.5	14.4
Sweden	2.4	3.4	2.9	2.3	2.1	34.6	38.6	33.8	28.2	30.6
Switzerland	1.0	1.4	1.3	1.4	1.4	36.7	40.0	31.5	32.5	31.8
United Kingdom	3.3	3.1	2.8	3.5	3.3	33.7	32.0	27.8	35.1	33.8
United States	16.2	6.7	9.2	12.0	7.5	22.4	14.8	23.2	32.5	24.1
Total	62.1	60.3	57.5	57.7	53.7	27.7	25.0	22.9	23.6	22.4
Multilateral donors										
AfDF	2.0	3.5	3.7	2.6	2.7	81.5	88.8	82.5	72.3	78.9
AsDB	2.7	2.9	2.3	2.9	2.5	58.4	40.7	36.2	39.0	35.4
EEC/EDF	6.4	7.4	8.8	8.3	9.0	41.6	44.7	35.9	30.2	32.4
IBRD	-	-	-	-	-	1.2	-	-	-	-
IDA	13.5	13.1	13.0	13.3	10.8	44.3	51.8	44.1	38.6	36.7
IDB	0.1	-	-	-	0.4	3.0	7.6	-	-	28.8
IFAD	1.3	0.8	0.3	0.2	0.3	39.8	48.6	55.3	56.1	62.3
IMF Trust Fund	-1.2	-	-	-	-	-	-	-	-	-
IMF SAF/ESAF	-	1.8	0.6	1.5	8.1	-	84.1	53.1	24.7	84.2
UN	13.0	10.2	13.7	13.6	12.6	36.5	35.1	33.3	37.8	36.2
Total	37.9	39.7	42.5	42.3	46.3	40.6	45.7	39.2	36.5	40.8
Grand total	100.0	100.0	100.0	100.0	100.0	31.5	30.5	27.8	27.7	28.3

Source: UNCTAD secretariat, based on information from the OECD/DAC secretariat.

25. Total financial flows and ODA from all sources to individual LDCs

(Net disbursements in millions of dollars)

	Total financial flows					of which: ODA				
Country	*1985*	*1990*	*1993*	*1994*	*1995*	*1985*	*1990*	*1993*	*1994*	*1995*
Afghanistan	214	165	299	172	215	237	167	227	230	215
Angola	271	102	219	672	471	105	270	298	453	424
Bangladesh	1 113	2 153	1 495	1 613	839	1 145	2 103	1 386	1 758	1 283
Benin	97	244	317	258	279	95	270	290	257	281
Bhutan	24	51	74	74	80	24	48	66	76	74
Burkina Faso	189	351	453	427	482	195	335	470	436	485
Burundi	156	261	210	306	279	138	270	217	313	287
Cambodia	125	145	320	353	584	125	145	317	339	567
Cape Verde	76	112	118	119	137	75	113	119	122	112
Central African Republic	116	260	174	159	169	109	253	173	166	169
Chad	182	318	259	229	287	181	316	228	215	240
Comoros	51	47	50	41	42	48	47	50	39	43
Dem. Republic of the Congo	469	1 409	168	213	243	303	895	178	245	195
Djibouti	103	192	140	122	104	81	195	134	129	106
Equatorial Guinea	31	66	54	32	33	20	65	53	30	34
Eritrea	-	-	53	158	150	-	-	68	158	150
Ethiopia	909	1 059	1 124	1 011	857	840	1 072	1 094	1 074	890
Gambia	48	108	82	70	44	50	100	86	70	47
Guinea	108	274	476	369	421	115	283	417	360	408
Guinea-Bissau	64	138	96	107	116	59	133	97	176	119
Haiti	142	158	120	596	719	150	172	124	601	731
Kiribati	12	21	15	-12	15	12	21	16	15	15
Lao People's Dem. Republic	174	178	207	219	314	147	178	207	218	313
Lesotho	119	149	231	228	185	94	143	143	117	115
Liberia	-289	517	473	-56	5	95	112	123	63	122
Madagascar	222	432	365	265	250	195	401	363	289	303
Malawi	118	520	491	464	417	113	505	498	470	434
Maldives	8	38	37	41	43	9	22	29	30	57
Mali	391	484	405	460	587	389	492	366	443	534
Mauritania	233	228	326	251	216	217	247	328	273	229
Mozambique	398	1 062	1 124	1 302	1 113	368	1 013	1 188	1 232	1 106
Myanmar	318	102	135	168	177	355	158	101	162	144
Nepal	244	430	349	449	420	234	429	364	448	436
Niger	300	384	353	378	205	316	398	357	377	274
Rwanda	199	288	352	710	657	195	293	358	715	710
Samoa	20	54	60	49	47	19	48	61	49	43
Sao Tome and Principe	13	55	49	52	52	14	56	49	51	79
Sierra Leone	66	76	224	260	204	74	72	209	277	209
Solomon Islands	22	58	59	46	44	21	45	55	47	47
Somalia	373	489	887	537	190	356	494	890	538	190
Sudan	1 123	739	485	401	279	1 135	827	458	413	232
Togo	91	259	99	116	191	111	261	98	126	190
Tuvalu	3	5	4	8	8	3	5	4	7	8
Uganda	223	666	635	883	807	183	671	631	755	830
United Republic of Tanzania	537	1 131	945	938	861	485	1 176	948	977	884
Vanuatu	39	151	69	13	38	22	52	35	42	46
Yemen	456	447	306	175	161	451	434	324	173	177
Zambia	542	585	828	634	1 964	341	482	875	720	2 027
All LDCs	10 441	17 162	15 813	16 083	16 000	10 049	16 289	15 171	16 277	16 610
All developing countries	45 034	80 479	128 929	158 727	160 065	32 048	57 278	55 265	59 516	59 218
Memo items:										
In current dollars per capita:										
All LDCs	23.2	33.6	28.5	28.1	27.2	22.4	31.9	27.3	28.5	28.2
All developing countries	12.1	19.5	29.5	35.7	35.4	8.6	13.9	12.7	13.4	13.1
In constant 1980 dollars[a] (million):										
All LDCs	11 815	14 889	13 900	13 746	12 308	11 372	14 131	13 336	13 912	12 777
All developing countries	50 840	70 386	116 016	140 466	131 201	36 180	50 094	49 730	52 669	48 539
In constant 1980 dollars[a] per capita:										
All LDCs	26.2	29.2	25.1	24.0	20.9	25.3	27.7	24.0	24.4	21.7
All developing countries	13.7	17.1	26.5	31.6	29.0	9.7	12.2	11.4	11.8	10.7

Source: UNCTAD secretariat estimates, mainly based on data from the OECD secretariat.

a The deflator used is the unit value index of imports.

26. ODA from DAC member countries and multilateral agencies mainly financed by them, to individual LDCs

	Average: 1982-1988							Average: 1989-1995						
	Per capita ODA	Total ODA	of which: Technical Assistance	Bilateral ODA	of which: Grants	Multi-lateral ODA	of which: Grants	Per capita ODA	Total ODA	of which: Technical assistance	Bilateral ODA	of which: Grants	Multi-lateral ODA	of which: Grants
Country[a]	Dollars	$ mill.	As percentage of total ODA					Dollars	$ mill.	As percentage of total ODA				
Bangladesh	13.3	1 312.1	12.6	57.9	45.6	42.1	10.7	15.1	1 706.5	16.1	50.1	48.8	49.9	12.6
Mozambique	31.4	422.6	14.4	78.2	60.3	21.8	14.4	75.9	1 127.0	16.7	68.0	61.1	32.0	18.4
United Rep. of Tanzania	31.5	687.8	24.8	77.2	71.0	22.8	9.7	38.4	1 045.1	21.5	67.3	69.3	32.7	12.6
Ethiopia	13.0	536.5	20.3	54.4	49.9	45.6	32.8	19.9	1 004.7	19.2	47.2	44.8	52.8	34.9
Zambia	49.3	339.2	25.9	78.7	58.8	21.3	9.4	105.3	913.2	15.6	53.0	54.6	47.0	9.8
Uganda	13.9	211.5	21.3	36.3	36.8	63.7	25.7	33.8	651.9	17.7	45.2	40.5	54.8	19.4
Sudan	31.8	683.3	21.7	66.2	57.9	33.8	21.4	22.2	576.5	24.3	46.6	47.7	53.4	37.4
Malawi	26.8	197.1	25.3	48.0	44.5	52.0	19.2	48.6	490.7	21.6	42.1	38.4	57.9	32.3
Somalia	49.9	391.7	31.7	62.5	50.7	37.5	27.3	52.7	468.1	15.0	73.1	73.7	26.9	23.0
Mali	37.6	298.4	23.8	64.8	50.1	35.2	18.1	46.4	456.6	25.6	58.8	52.1	41.2	17.1
Nepal	15.8	268.0	28.3	54.8	51.1	45.2	13.2	21.6	439.5	28.8	59.6	53.1	40.4	11.5
Rwanda	30.9	187.3	35.0	60.4	55.7	39.6	19.5	58.1	427.9	22.4	58.8	58.0	41.2	30.4
Dem. Rep. of the Congo	13.1	416.6	33.0	65.2	44.9	34.8	10.7	10.4	416.3	22.1	64.7	56.7	35.3	18.5
Burkina Faso	28.5	224.7	36.6	70.5	61.7	29.5	18.5	42.2	401.6	29.7	62.1	59.4	37.9	18.8
Guinea	27.4	137.4	18.4	55.3	31.9	44.7	16.5	61.8	378.6	18.1	50.1	42.6	49.9	19.3
Madagascar	23.2	247.0	19.9	60.4	34.1	39.6	12.0	27.0	362.7	25.6	60.9	68.6	39.1	15.4
Niger	39.1	258.3	30.5	65.2	58.4	34.8	17.5	41.6	344.9	32.2	69.8	71.3	30.2	21.1
Angola	13.1	104.8	27.3	68.7	48.8	31.3	30.5	32.2	319.8	20.7	56.2	47.5	43.8	38.8
Haiti	26.1	153.6	27.6	65.9	59.3	34.1	11.0	44.6	301.6	22.2	79.4	83.3	20.6	14.0
Benin	26.6	106.5	32.9	55.3	49.6	44.7	20.2	54.6	269.5	20.6	56.9	52.2	43.1	16.8
Burundi	31.8	151.4	32.2	52.2	42.1	47.8	17.1	46.0	269.1	22.3	45.7	44.1	54.3	34.1
Chad	30.7	153.6	23.4	56.6	51.4	43.4	36.0	42.3	248.4	25.3	56.1	52.8	43.9	20.4
Mauritania	76.8	135.8	28.7	65.2	55.9	34.8	20.1	117.5	248.0	20.4	54.5	47.3	45.5	23.4
Yemen	21.2	203.8	40.7	56.3	47.0	43.7	20.3	19.4	244.5	35.9	66.2	54.5	33.8	17.1
Cambodia	3.0	22.3	48.8	39.1	39.3	60.9	60.9	24.2	227.1	38.5	57.2	58.8	42.8	31.6
Lao People's Dem. Rep.	12.3	44.4	35.6	48.0	52.3	52.0	31.1	43.0	192.5	25.8	46.3	47.5	53.7	15.1
Togo	41.1	124.8	29.2	58.5	56.7	41.5	15.0	49.5	186.6	24.0	59.6	56.4	40.4	15.4
Afghanistan	1.7	25.2	82.8	65.0	91.1	35.0	39.8	11.0	185.9	42.2	58.3	60.2	41.7	42.2
Central African Republic	50.1	130.3	30.8	61.9	49.9	38.1	17.2	60.1	185.1	27.9	56.9	57.2	43.1	18.8
Sierra Leone	19.3	69.3	35.6	60.1	55.4	39.9	24.4	37.1	156.0	18.0	43.3	37.0	56.7	22.9
Myanmar	9.1	343.2	13.6	71.0	27.1	29.0	7.1	3.4	149.9	23.1	67.5	52.3	32.5	19.0
Lesotho	62.5	97.6	38.4	62.7	62.5	37.3	22.4	69.5	131.6	32.0	52.4	49.0	47.6	26.1
Guinea-Bissau	80.3	70.4	28.7	52.9	52.9	47.1	21.8	121.6	122.5	32.2	62.0	52.3	38.0	18.8
Cape Verde	238.2	73.9	29.5	71.3	70.0	28.7	24.3	311.5	112.4	31.7	68.2	67.6	31.8	21.0
Liberia	43.9	96.6	31.0	76.0	57.9	24.0	9.7	39.2	108.1	19.3	33.7	35.2	66.3	62.2
Djibouti	173.5	68.3	50.7	78.6	77.1	21.4	13.4	198.8	107.7	40.9	78.9	72.3	21.1	11.9
Gambia	92.1	69.3	30.4	56.2	53.6	43.8	22.1	89.0	89.1	29.0	53.2	52.2	46.8	21.4
Bhutan	17.4	24.0	42.0	36.6	36.6	63.4	48.8	38.8	61.2	40.3	62.4	62.8	37.6	29.0
Sao Tome and Principe	134.9	14.3	23.4	34.3	34.3	65.7	41.6	451.0	56.1	23.9	55.8	44.8	44.2	17.2
Eritrea	-	-	-	-	-	-	-	15.7	51.2	23.8	66.5	66.5	33.5	33.3
Equatorial Guinea	83.9	25.5	26.0	52.0	42.3	48.0	28.4	136.7	50.7	38.6	61.0	57.5	39.0	21.5
Comoros	85.5	39.0	33.4	56.3	46.7	43.7	28.1	82.5	48.4	36.0	54.3	53.4	45.7	30.9
Samoa	155.0	24.9	35.3	67.8	67.7	32.2	21.3	287.6	47.7	32.0	60.8	60.7	39.2	15.7
Solomon Islands	124.5	33.7	35.9	60.9	53.7	39.1	25.9	136.2	46.7	46.0	75.5	66.1	24.5	16.5
Vanuatu	230.5	30.5	49.6	80.0	78.5	20.0	17.8	278.0	43.7	53.2	81.2	79.1	18.8	11.0
Maldives	72.7	13.2	37.2	64.4	65.3	35.6	24.4	144.0	33.1	29.2	57.4	56.2	42.6	18.5
Kiribati	230.1	14.8	38.9	85.3	85.3	14.7	13.4	247.5	18.8	46.4	80.3	80.3	19.7	18.3
Tuvalu	1 087.6	9.0	20.4	94.3	94.3	5.7	5.5	706.6	6.5	51.5	82.6	82.6	17.4	16.3
All LDCs	20.6	9 293.7	24.8	63.2	51.9	36.8	17.4	28.7	15 531.6	22.4	57.2	54.7	42.8	21.0
All developing countries	8.1	29 994.4	30.4	71.9	54.3	28.1	14.9	12.7	54 385.9	29.6	70.4	58.5	29.6	16.5

Source: UNCTAD secretariat estimates, mainly based on data from the OECD/DAC secretariat.

a Ranked in descending order of total ODA received in 1989-1995.

27. External debt (at year end) and debt service, by source of lending

	External debt (at year end)					% of total		Debt service					% of total	
	1985	1990	1993	1994	1995	1985	1995	1985	1990	1993	1994	1995	1985	1995
I. Long-term	65 107	103 746	111 089	114 755	123 906	91.4	91.7	4 139	4 324	2 979	3 126	6 090	90.2	95.6
A. Concessional	37 787	69 938	76 286	82 578	89 034	53.1	65.9	1 010	1 461	1 360	1 631	2 053	22.0	32.2
(a) OECD countries	9 759	17 928	16 032	17 094	19 282	13.7	14.3	262	495	424	499	564	5.7	8.8
(b) Other countries	14 444	20 685	19 691	19 504	19 072	20.3	14.1	343	390	160	172	267	7.5	4.2
(c) Multilateral agencies	13 584	31 325	40 563	45 980	50 680	19.1	37.5	405	576	776	960	1 222	8.8	19.2
B. Non-concessional	27 320	33 808	34 803	32 177	34 872	38.3	25.8	3 129	2 863	1 619	1 495	4 037	68.2	63.4
(a) OECD countries	12 709	15 648	13 358	13 138	12 551	17.8	9.3	1 932	1 406	730	683	1 068	42.1	16.8
(i) official/officially guaranteed	9 685	12 880	11 022	10 640	9 771	13.6	7.2	1 442	854	535	446	757	31.4	11.9
(ii) financial markets	3 024	2 768	2 336	2 498	2 780	4.2	2.1	490	552	195	237	311	10.7	4.9
(b) Other countries	8 315	11 597	16 160	13 691	17 760	11.7	13.1	192	232	183	196	232	4.2	3.6
(c) Multilateral agencies	6 296	6 563	5 285	5 348	4 561	8.8	3.4	1 005	1 225	706	616	2 737	21.9	43.0
II. Short-term	6 165	10 903	10 647	11 483	11 181	8.6	8.3	450	499	186	233	282	9.8	4.4
Total	71 272	114 649	121 736	126 238	135 087	100.0	100.0	4 589	4 823	3 165	3 359	6 372	100.0	100.0
Of which: use of IMF credit	4 938	5 063	5 079	5 595	6 199	6.9	4.6	837	840	378	415	2 625	18.2	41.2

Source: UNCTAD secretariat calculations, based on information from the OECD secretariat.
Note: Figures for total debt and total debt service cover both long-term and short-term debt as well as the use of IMF credit.

28. Total external debt and debt service payments of individual LDCs

(Millions of dollars)

Country	Debt (at year end)					Debt service				
	1985	1990	1993	1994	1995	1985	1990	1993	1994	1995
Afghanistan	2 275	5 086	5 479	5 586	5 454	47	115	12	5	8
Angola	3 045	8 061	9 357	9 416	9 738	372	328	129	130	457
Bangladesh	6 781	12 212	14 502	16 132	15 988	396	669	516	596	665
Benin	774	1 351	1 356	1 424	1 728	38	48	38	31	42
Bhutan	9	82	92	95	107	0	6	9	7	8
Burkina Faso	545	1 098	1 137	1 123	1 560	32	36	42	47	61
Burundi	472	1 017	1 083	1 177	1 237	26	54	36	42	41
Cambodia	715	1 785	1 792	1 862	1 986	14	37	32	5	14
Cape Verde	108	139	143	171	222	6	7	7	8	8
Central African Republic	354	860	816	834	1 052	30	36	11	24	17
Chad	172	583	738	739	954	15	15	15	15	17
Comoros	135	210	180	186	239	2	3	3	3	1
Dem. Republic of the Congo	5 795	10 380	9 588	9 800	10 356	654	555	120	51	80
Djibouti	237	211	277	271	299	40	28	11	11	12
Equatorial Guinea	111	197	240	260	258	12	7	2	2	3
Eritrea	-	-	-	13	13	-	-	-	0	0
Ethiopia	4 091	3 713	4 204	4 626	4 882	153	189	110	98	139
Gambia	241	391	442	441	448	13	35	24	26	24
Guinea	1 355	2 608	2 658	2 879	3 234	82	174	93	111	169
Guinea-Bissau	380	557	624	681	842	17	8	5	11	16
Haiti	732	873	690	662	827	45	34	3	32	65
Kiribati	11	15	16	18	10	1	1	1	1	1
Lao People's Dem. Republic	1 142	1 765	2 014	2 130	2 211	14	10	28	20	30
Lesotho	168	471	844	965	1 238	22	29	42	46	58
Liberia	1 400	1 746	1 476	1 523	1 535	87	71	51	43	32
Madagascar	2 139	3 868	3 283	3 502	3 863	145	265	104	82	91
Malawi	1 027	1 536	1 861	2 164	2 234	120	116	75	73	106
Maldives	59	74	160	163	190	12	10	9	11	11
Mali	1 448	2 592	2 345	2 273	2 876	56	80	49	117	83
Mauritania	1 469	2 088	2 024	2 142	2 294	115	151	129	102	119
Mozambique	2 276	4 356	4 520	5 151	5 350	184	125	96	126	164
Myanmar	2 976	4 761	5 386	6 027	6 034	274	105	78	167	243
Nepal	607	1 687	2 137	2 420	2 489	24	75	71	80	86
Niger	1 238	1 789	1 407	1 558	1 724	124	136	106	69	61
Rwanda	352	806	870	932	1 073	27	32	18	5	22
Samoa	74	93	191	155	163	7	6	5	6	5
Sao Tome and Principe	86	130	220	225	245	4	2	2	3	2
Sierra Leone	632	685	850	943	931	43	28	31	141	30
Solomon Islands	294	152	199	195	239	16	12	24	21	17
Somalia	1 884	2 165	1 991	2 077	2 141	56	35	12	6	11
Sudan	8 346	11 486	10 708	11 042	10 310	281	236	110	84	173
Togo	970	1 465	1 163	1 220	1 405	78	124	40	28	34
Tuvalu	0	1	6	1	0	0	0	1	0	0
Uganda	1 156	2 443	2 940	3 272	3 406	150	121	141	146	142
United Republic of Tanzania	3 393	5 463	5 374	5 552	5 767	112	177	187	157	219
Vanuatu	128	304	237	405	298	17	26	11	16	25
Yemen	5 148	5 812	8 757	5 959	9 459	406	218	113	139	127
Zambia	4 521	5 482	5 355	5 850	6 181	219	246	416	416	2 634
Total LDCs	71 271	114 649	121 732	126 242	135 090	4 588	4 823	3 168	3 360	6 373

Source: UNCTAD secretariat calculations, based on information from the OECD secretariat.
Note: Figures for total debt and total debt service cover both long-term and short-term debt as well as the use of IMF credit.

29. Debt and debt service ratios

(Percentage)

Country	Debt/GDP					Debt service/exports[a]				
	1985	1990	1993	1994	1995	1985	1990	1993	1994	1995
Afghanistan	62	..	..	..	..	7	-	-	-	-
Angola	45	88	220	137	262	15	8	4	4	13
Bangladesh	43	55	60	63	55	32	32	17	17	15
Benin	74	73	64	94	..	11	12	8	8	8
Bhutan	5	29	38	34	35	0	7	11	8	7
Burkina Faso	38	40	40	61	67	20	10	14	17	18
Burundi	41	90	115	118	116	20	60	41	44	31
Cambodia	-	160	81	79	72	67	168	9	1	1
Cape Verde	101	51	46	53	..	19	11	14	13	10
Central African Republic	50	66	66	96	93	17	16	6	13	7
Chad	24	48	62	81	84	16	6	8	8	6
Comoros	118	84	64	93	105	10	9	-	-	-
Dem. Republic of the Congo	81	-	-	-	-	33	24	-	-	-
Djibouti	70	50	59	56	60	27	10	5	5	6
Equatorial Guinea	139	149	153	202	153	50	17	3	3	3
Eritrea	..	..	..	..	..	..	..	..	..	..
Ethiopia	61	43	69	96	92	25	32	23	15	18
Gambia	111	118	123	121	117	15	21	10	12	14
Guinea	99	93	84	85	88	16	21	12	17	24
Guinea-Bissau	241	236	259	280	328	94	42	31	33	67
Haiti	36	29	44	41	40	13	11	3	50	32
Kiribati	48	47	47	46	23	11	9	5	4	5
Lao People's Dem. Republic	48	203	152	139	126	19	10	2	5	7
Lesotho	68	78	111	109	120	54	29	25	25	27
Liberia	128	..	..	..	..	19	14	7	6	4
Madagascar	75	126	97	118	121	41	56	20	13	12
Malawi	91	83	92	169	152	44	26	22	19	25
Maldives	69	51	74	68	70	13	6	4	4	3
Mali	137	105	88	123	118	24	19	12	30	16
Mauritania	215	205	214	209	215	29	32	30	24	22
Mozambique	89	302	308	351	364	129	55	31	37	40
Myanmar	..	..	..	..	..	72	33	8	15	18
Nepal	24	48	61	60	59	8	18	10	8	8
Niger	86	72	63	101	93	42	26	31	27	22
Rwanda	20	31	44	124	95	17	22	18	5	28
Samoa	84	64	127	102	107	27	14	12	13	8
Sao Tome and Principe	246	241	458	450	544	44	25	-	-	-
Sierra Leone	53	76	110	107	113	27	13	18	65	28
Solomon Islands	184	72	74	63	67	20	13	17	15	12
Somalia	215	236	-	-	-	44	-	-	-	-
Sudan	81	127	-	-	-	34	47	29	14	25
Togo	127	90	92	127	111	21	19	12	7	7
Tuvalu	-	-	-	-	-	-	-	-	-	-
Uganda	33	57	91	82	60	40	68	48	29	22
United Republic of Tanzania	61	141	144	164	160	26	33	25	17	18
Vanuatu	108	197	145	224	165	30	35	13	16	23
Yemen	83	85	206	131	197	131	15	8	7	6
Zambia	201	167	150	158	152	25	18	40	35	227
All LDCs	69	85	97	102	102	29	22	14	14	23

Source: UNCTAD secretariat, mainly based on information from the OECD secretariat, the World Bank and the IMF.
Note: Debt and debt service are defined as in table 27.
a Exports of goods and services (including non-factor services).

30. LDCs' DEBT RESCHEDULINGS WITH OFFICIAL CREDITORS, 1988-1997

Country		Date of meeting (month/ year)	Cut-off date	Consolidation period (months)	Percentage of principal and interest consolidated	Grace period[a]	Repayment period	Arrears	Rescheduling of previously rescheduled debt	Goodwill clause	Estimated amounts rescheduled ($ million)
Angola	I	07/1989	12/31/86	15	100	6 ys 0 ms	3 ys 6 ms	Yes	Yes	Yes	446
Benin	I[b]	06/1989	03/31/89	13	100	Toronto terms		Yes	No	Yes	193
	II[c]	12/1991	03/31/89	15	100	London terms		Yes	Yes	Yes	160
	III[c]	06/1993	03/31/89	29[d]	100	London terms		Yes	No	Yes	25
	IV[e]	10/1996	03/31/89	-	-	Naples terms (67%)[f]		Yes	Yes	No	209
Burkina Faso	I[b]	03/1991	01/1/91	15	100	Toronto terms		Yes	No	Yes	63
	II[c]	05/1993	01/1/91	32[d]	100	London terms		Yes	No	Yes	36
	III[e]	06/1996	01/1/91	-	-	Naples terms (67%)[f]		No	Yes	No	64
Cambodia	III[e]	01/1995[g]	12/31/85	30[d]	100	Naples terms (67%)		No	Yes	No	249
Central African Republic	IV[b]	12/1988	01/1/83	18	100	Toronto terms		Yes	Yes	Yes	28
	V[b]	06/1990	01/1/83	12	100	Toronto terms		No	Yes	No	4
	VI[c]	04/1994	01/1/83	12	100	London terms		Yes	Yes	Yes	33
Chad	I[b]	10/1989	..	15	100	Toronto terms		Yes	..	..	38
	II[e]	02/1995[g]	06/30/89	12	100	Naples terms (67%)		Yes	Yes	No	24
	III[e]	06/1996[g]	06/30/89	32	100	Naples terms (67%)		Yes	Yes	No	..
Dem. Rep. of the Congo	X[b]	06/1989	06/30/83	13	100	Toronto terms		Yes	Yes	Yes	1 530
Ethiopia	I[c]	12/1992	12/31/89	37[d]	100	London terms		Yes	..	Yes	441
	II[e]	01/1997	12/31/89	34[d]	100	Naples terms (67%)		Yes	No	Yes	..
Equatorial Guinea	II[b]	03/1989[g]	..	..	..	Toronto terms		Yes	No	Yes	10
	III[c]	04/1992[g]	..	..	..	London terms		Yes	Yes	Yes	32
	IV[c]	02/1994[g]	..	..	..	London terms		Yes	Yes	Yes	51
Guinea	II[b]	04/1989	01/1/86	12	100	Toronto terms		Yes	Yes	Yes	123
	III[c]	11/1992	01/1/86	..	100	London terms		Yes	Yes	Yes	203
	IV[e]	01/1995	01/1/86	12	100	Naples terms (50%)		Yes	Yes	Yes	156
	V[e]	02/1997	01/1/86	36[d]	100	Naples terms (50%)		Yes	Yes	Yes	..
Guinea-Bissau	II[b]	10/1989	12/31/86	15	100	Toronto terms		Yes	Yes	Yes	21
	III[e]	02/1995	12/31/86	36[d]	100	Naples terms (67%)		No	Yes	Yes	195
Haiti	I[e]	05/1995	10/1/93	13	100	Naples terms (67%)		Yes	No	Yes	117
Madagascar	VI[b]	10/1988	07/1/83	21	100	Toronto terms		Yes	Yes	Yes	254
	VII[b]	07/1990	07/1/83	13	100	Toronto terms		No	Yes	Yes	139
	VIII[e]	03/1997	07/1/83	35[d]	100	Naples terms (67%)		Yes	Yes	Yes	..
Malawi	III	04/1988	01/1/82	14	100	9 ys 11 ms	9 ys 6 ms	Yes	Yes	Yes	27
Mali	I[b]	10/1988	01/1/88	16	100	Toronto terms		Yes	No	Yes	63
	II[b]	11/1989	01/1/88	26[d]	100	Toronto terms		Yes	No	Yes	44
	III[c]	10/1992	01/1/88	35[d]	100	London terms		Yes	No	Yes	20
	IV[e]	05/1996	01/1/88	-	-	Naples terms (67%)[f]		No	Yes	No	33
Mauritania	IV[b]	06/1989	12/31/84	12	100	Toronto terms		Yes	Yes	No	52
	V[c]	01/1993	12/31/84	24[d]	100	London terms		Yes	Yes	Yes	218
	VI[e]	06/1995	12/31/84	36	100	Naples terms (67%)		No	Yes	Yes	66

Table 30 (contd.)

Country		Date of meeting (month/ year)	Cut-off date	Consolidation period (months)	Percentage of principal and interest consolidated	Grace period[a]	Repayment period	Arrears	Rescheduling of previously rescheduled debt	Goodwill clause	Estimated amounts rescheduled ($ million)
Mozambique	III[b]	06/1990	02/1/84	30[d]	100	Toronto terms		Yes	Yes	Yes	719
	IV[c]	03/1993	02/1/84	24[d]	100	London terms		Yes	Yes	Yes	440
	V[e]	11/1996	02/1/84	32[d]	100	Naples terms (67%)		Yes	Yes	Yes	664
Niger	V	04/1988	07/1/83	13	100, 75[h]	10 ys 0 m	9 ys 6 ms	no	No	No	37
	VI[b]	12/1988	07/1/83	12	100	Toronto terms		No	Yes	Yes	48
	VII[b]	09/1990	07/1/83	28[d]	100	Toronto terms		Yes	Yes	Yes	116
	VIII[c]	03/1994	07/1/83	15	100	London terms		Yes	Yes	Yes	160
	IX[e]	12/1996	07/1/83	31[d]	100	Naples terms (67%)		Yes	Yes	Yes	128
Sierra Leone	V[c]	11/1992	07/1/83	16	100[i]	London terms[j]		Yes	Yes	Yes	164
	VI[c]	07/1994	07/1/83	17	100	London terms		Yes	Yes	Yes	42
	VII[e]	03/1996	07/1/83	24	100	Naples terms (67%)		No	Yes	Yes	39
Togo	VI	03/1988	01/1/83	16	100	7ys 10 ms	7 ys 6 ms	Yes	Yes	No	139
	VII[b]	06/1989	01/1/83	15	100	Toronto terms		No	Yes	Yes	76
	VIII[b]	07/1990	01/1/83	24[d]	100	Toronto terms		No	Yes	No	88
	IX[c]	06/1992	01/1/83	24[d]	100	London terms		No	Yes	Yes	52
	X[e]	02/1995	01/1/83	33[d]	100	Naples terms (67%)		No	Yes	Yes	239
Uganda	IV[b]	01/1989	07/1/81	18	100	Toronto terms		Yes	Yes	Yes	89
	V[c]	06/1992	07/1/81	18	100	London terms		Yes	Yes	Yes	39
	VI[e]	02/1995[g]	07/1/81	-	-	Naples terms (67%)[f]		No	Yes[k]	No	110
United Rep. of Tanzania	II[b]	12/1988	06/30/86	6	100	Toronto terms		Yes	Yes	Yes	377
	III[b]	03/1990	06/30/86	12	100	Toronto terms		Yes	Yes	Yes	200
	IV[c]	01/1992	06/30/86	30[d]	100	London terms		Yes	Yes	Yes	691
	V[e]	01/1997	06/30/86	36[d]	100	Naples terms (67%)		Yes	Yes	Yes	..
Yemen	I[e]	09/1996	01/1/93	10	100	Naples terms (67%)		Yes	..	Yes	113
Zambia	IV[b]	07/1990	01/1/83	18	100	Toronto terms		Yes	Yes	Yes	963
	V[c]	07/1992	01/1/83	33[d]	100	London terms		Yes	Yes	Yes	917
	VI[e]	02/1996	01/1/83	36[d]	100	Naples terms (67%)		Yes	Yes	Yes	566

Source: Paris Club Agreed Minutes.

Note: Roman numerals indicate the number of debt reschedulings for the country since 1976. Reschedulings up to the end of the first quarter of 1997 are included.

a The grace period is defined as starting at the beginning of the consolidation period and running up to the date of the first payment.

b Beneficiary of the concessional debt relief measures agreed upon at the Toronto summit.

c Beneficiary of new terms going beyond the Toronto terms following the Trinidad proposal (1990), and the London Summit recommendations of 1992.

d Multi-year rescheduling.

e Naples terms. Number in brackets indicates the percentage of reduction applied.

f Stock reduction.

g Dates of informal meeting of creditors on the terms to be applied in the bilateral agreements, as creditors did not call for a full Paris club meeting.

h The first percentage relates to principal, and the second to interest.

i Including 50% of moratorium interest.

j Does not apply to moratorium interest or to arrears on short-term debt.

k Only the two agreements concluded in 1987 and 1989 are included in the debt eligible for reduction.

31. Arrangements in support of structural adjustment in the 1980s
(As of December 1996)

Millions of SDRs (except where otherwise indicated)

Country	IMF arrangements: Stand-by/Extended Facility: Period	Amount	IMF arrangements: SAF/ESAF: Period	Amount	World Bank loans and credits: Structural adjustment: Date of approval	Amount: IDA	Amount: African Facility[1]	Co-financing[2]	Sector and other adjustment: Date of approval	Amount: IDA	Amount: African Facility[1]	Co-financing[2]	Purpose
Bangladesh	July 1979 - July 1980	85.0											
	Dec. 1980 - Dec. 1983[3]	800.0[4]											
	March 1983 - Aug. 1983	68.4											
	Dec. 1985 - June 1987	180.0	Feb. 1987 - Feb. 1990	201.3					June 1997	147.8			Industrial policy reform
									Apr. 1989	137.0		Germany (DM 26 mn.)	Energy sector
									Oct. 1989	1.8[6]			*Idem*
			Aug. 1990 - Sept. 1993	345[5]					June 1990	132.7		USAID (18.2)	Financial sector
									Nov. 1990	2.5[6]			*Idem*
									Nov. 1991	2.2[6]			*Idem*
									May 1992	109.3			Public resource management
									Oct. 1992	72.2			Industry
									Dec. 1992	2.5[6]			*Idem*
									Feb. 1994	175.0			Jute sector
									May 1994	2.4[6]			*Idem*
									Dec. 1994	2.3[6]			*Idem*
									Dec. 1995	2.3[70]			*Idem*
Benin			June 1989 - June 1992	21.9[7]	May 1989	33.5							
			Jan. 1993 - Jan. 1996	51.9[5]	June 1991	41.3							
					May 1995	25.8							
									Nov. 1993	3.7		DANIDA (4) ACBF (2)	Economic management
			Aug. 1996 - Aug. 1999	27.2[5]									
Burkina Faso									Feb. 1985	13.8		France/CCCE (3.2); Netherlands (2.1) Germany/GTZ (2); France/FAC (1.7)	Fertilizers
			Mar. 1991 - Mar. 1993	22.1[8]	June 1991	60.0		EC (30); AfDB (20); France (17); Canada (13); Germany (12)	Feb. 1992	49.6		EDF (99); AfDB (60.6); CIDA (29.8); Germany (28.6); West African Development Fund (10.2); BADEA (8.5); CCCE & FAC (7.8); IsDB (5.5); BOAD (3.1); UNDP (0.6)	Transport sector
									June 1992	20.6		France (21); EC (20); AfDB (13)	Agriculture
			Mar. 1993 - Mar. 1996	53.0[5]					Mar. 1994	18.0			Economic recovery
			June 1996 - June 1999	39.8[5]									
Burundi	Aug. 1986 - March 1988	21.0	Aug. 1986 - Aug. 1989	29.9	May 1986	13.2	14.3	Japan (11); Switzerland (7.7);					
					June 1988	64.9		Japan (18.1); Germany (6); Saudi Arabia (2.9)					
			Nov. 1991 - Nov. 1994	42.7[5]									
					June 1992	22							
Central African Republic	Feb. 1980 - Feb. 1981	4.0											
	April 1981 - Dec. 1981	10.4[9]											
	April 1983 - April 1984	18.0[10]											
	July 1984 - July 1985	15.0											
	Sept.1985 - March 1987	15.0[11]			Sept. 1986	12.3	14						
	June 1987 - May 1988	8.0	June 1987 - May 1990	21.3					July 1987	11.5		Saudi Arabia (2); Japan (6)	Cotton sector
					June 1988	28.9		ADF (25)					
	Mar. 1994 - Mar. 1995	16.5			June 1990	34.5							

Table 31 (contd.)

Country	IMF arrangements: Stand-by/Extended Facility Period	IMF arrangements: Stand-by/Extended Facility Amount	IMF arrangements: SAF/ESAF Period	IMF arrangements: SAF/ESAF Amount	World Bank loans and credits: Structural adjustment Date of approval	Structural adjustment Amount: IDA	Structural adjustment Amount: African Facility[1]	Structural adjustment Amount: Co-financing[2]	World Bank loans and credits: Sector and other adjustment Date of approval	Sector and other adjustment Amount: IDA	Sector and other adjustment Amount: African Facility [1]	Sector and other adjustment Amount: Co-financing [2]	Purpose
Chad			Oct. 1987 - Oct. 1990	21.4					July 1988	11.9	(16.2)		Public finance and cotton sector
									Apr. 1989	45.4		USAID (23) Germany (22.7): CCCE (13.1); ADF (11.3); BDEAC (10.6); EDF (4.8); OPEC Fund for Int.Dev.(4.5); FAC (3.3); UNDP (0.5)	Transport sector
	Mar. 1994 - Mar. 1995	16.5							Mar. 1994	14.4			Economic recovery
			Sept. 1995 - Aug. 1998	49.6	Feb. 1996	20.2							
Cambodia	May 1994 - May 1997	84.0[5]							July 1988 Sept.1995	11.9 25.4	(16.2)		 Economic rehabilitation
Comoros			June 1991 - June 1994	3.2					June 1991	6.0	ADF (17); UNDP (1)		Macroeconomic reform and capacity building
Dem. Republic of the Congo	Aug. 1979 - Feb. 1981 June 1981 - June 1984[21] Dec. 1983 - March 1985 April 1985 - April 1986 May 1986 - Mar. 1988	118.0[59] 912.0[60] 228. 0[61] 162.0 214.2[62]											
			May 1987 - May 1990	203.7[63]					June 1986 June 1987	17.6 42.2	(60) (94.3)	 Japan (15.7)	Industrial sector Agricultural and rural dev.
	May 1987 - May 1988 June 1989 - June 1990	100.0[64] 116.4[65]											
Djibouti	Apr. 1996 - June 1997	4.6											
Equatorial Guinea	July 1980 - June 1981 June 1985 - June 1986	5.5 9.2[12]											
			Dec. 1988 - Dec. 1991 Feb. 1993 - Feb. 1996	12.9[13] 12.9[5]									
Ethiopia	May 1981 - June 1982	67.5											
			Oct. 1992 - Nov. 1995	49.4	June 1993 Jan. 1994 Dec. 1994	176.5 0.3[6] 0.1[6]							
			Oct. 1996 - Oct. 1999	88.5[5]									
Gambia	Nov. 1979 - Nov. 1980 Feb. 1982 - Feb. 1983 April 1984 - July 1985 15 Sept.1986 - Oct. 1987	1.6 16.9 12.8[14] 5.1											
			Sept.1986 - Nov. 1988	12.0[16]	Aug. 1986	4.3	9.9	United Kingdom (4.5); ADF (9)					
			Nov. 1988 - Nov. 1991	20.5[5]	June 1989	17.9		ADF (6) Netherlands (2.5)					
Guinea	Dec. 1982 - Nov. 1983 Feb. 1986 - March 1987	25.0[17] 33.0[18]											
	July 1987 - Aug. 1988	11.6	July 1987 - July 1990	40.5[19]	Feb. 1986	22.9	15.6	France (26.7); Germany (9.4); Japan (27.8); Switzerland (4.8)					
					June 1988	47.0		ADF (12); Japan (11.2)					
									June 1990	15.4			Education sector
			Nov. 1991 - Nov. 1996	57.9[5]	Dec. 1992	0.1[6]							

Table 31 (contd.)

Country	IMF arrangements: Stand-by/Extended Facility Period	Stand-by/Extended Facility Amount	SAF/ESAF Period	SAF/ESAF Amount	World Bank loans and credits: Structural adjustment Date of approval	Structural adjustment Amount IDA	Structural adjustment Amount African Facility[1]	Structural adjustment Amount Co-financing[2]	Sector and other adjustment Date of approval	Sector and other adjustment Amount IDA	Sector and other adjustment Amount African Facility[1]	Sector and other adjustment Amount Co-financing[2]	Purpose
Guinea-Bissau									Dec.1984	10.1		Switzerland (SwF 4.5 mn.)	Economic recovery programme[21]
			Oct. 1987 - Oct. 1990	5.3[20]	May 1987	8	4	Switzerland (5.2); Saudi Arabia (3.2); ADF (11.3); IFAD (5.3)					
					May 1989	18		Netherlands (4.8) USAID (4.5) ADF (12.0)[22]					
			Jan. 1995 - Jan. 1998	9.5[5]									
Haiti	Oct. 1978 - Oct. 1981[24]	32.2[23]											
	Aug. 1982 - Sept. 1983	34.5											
	Nov. 1983 - Sept. 1985	60.0[25]											
			Dec.1986 - Dec. 1989	30.9[26]					Mar.1987	32.8			Economic recovery
	Sept.1989 - Dec.1990	21.0[18]											
									Dec. 1994	26.8			*Idem*
	Mar. 1995 - Mar.1996	20.0											
			Oct.1996 - Oct. 1999	91.1[5]									
Lao PDR	Aug. 1980 - Aug. 1981	14.0											
			Sept.1989 - Sep. 1992	20.5	June 1989	30.8							
					Oct. 1991	30.0							
			June 1993 - June 1997	35.2[5]									
					Feb. 1996	26.9							
Lesotho			June 1988 - June 1991	10.6									
			May 1991 - Aug. 1994	18.1[5]									
	Sept.1994 - Sept. 1995	8.4											
	July 1995 - July 1996	7.2											
	Sept.1996 - Sept. 1997	7.2											
Madagascar	June 1980 - June 1982	64.5[27]											
	April 1981 - June 1982	76.7[28]											
	July 1982 - July 1983	51.0[14]											
	April 1984 - March 1985	33.0											
	April 1985 - April 1986	29.5							May 1986	19	(33)	Kfw (4); Japan (3)	Agricultural sector
	Sept.1986 - Feb. 1988	30.0	Aug. 1987 - May 1989	46.5[29]					June 1988	90.5		ADF (40); Switzerland (8)	Public sector
	Sept.1988 - July 1989	13.3[30]											
			May 1989 - May 1992	76.9[5]					Mar.1989	1.1[6]			Public sector
									Oct.1989	0.9[6]			*Idem*
									Nov.1990	1.2[6]			*Idem*
									Nov.1991	1[6]			*Idem*
									Dec.1992	1[6]			*Idem*
			Nov. 1996 - Nov. 1999	81.4[5]									
Malawi	Oct. 1979 - Dec. 1981[31]	26.3											
	May 1980 - March 1982	49.9[32]			June 1981	36.7[33]							
	Aug. 1982 - Aug. 1983	22.0							Apr. 1983	4.6		IFAD (10.3)	Smallholder fertilizers
	Sept.1983 - Sept. 1986	81.0[34]			Dec. 1983	51.9							
					Dec. 1985	28.0	37.3	Germany/KfW (6.4); Japan/ OECF (22.6); USAID (15)					
	March 1988 - May 1989	13.0	July 1988 - Mar. 1994	67.0[5]									
					Jan. 1987		8.4	Japan (17.7); United Kingdom (7.5); Germany (5)	June 1988	50.6		OECF (30) USAID (25) ADF (19.5) EEC (16)	Industrial and trade policy adjustment
									Mar. 1989	4.0[6]			*Idem*
									Oct. 1989	3.8[6]			*Idem*
									Apr. 1990	52.6		USAID (25) United Kingdom (16.5) Netherlands (5) Germany, EEC and Japan	Agriculture
									Nov. 1990	5.1[6]			Industry and trade

Table 31 (contd.)

Country	IMF arrangements: Stand-by/Extended Facility Period	Stand-by/Extended Facility Amount	SAF/ESAF Period	SAF/ESAF Amount	World Bank loans and credits: Structural adjustment Date of approval	Structural adjustment Amount IDA	Structural adjustment Amount African Facility[1]	Structural adjustment Amount Co-financing[2]	Sector and other adjustment Date of approval	Sector and other adjustment Amount IDA	Sector and other adjustment Amount African Facility[1]	Sector and other adjustment Amount Co-financing[2]	Purpose
Malawi (contd.)									Nov. 1991	4.0[6]			Agriculture
									June 1992	85.4		AfDB (13.4)	Entrepreneurship dev. & drought recovery
									Dec. 1992	4.3[6]			*Idem*
	Nov. 1994 - June 1995	15.0							Nov. 1994	27.6[6]			*Idem*
									Dec. 1994	3.2[6]			*Idem*
			Oct. 1995 - Oct. 1998	45.8[5]									
									Apr. 1996	701.3			Fiscal restructuring & deregulation programme
									Apr. 1996	2.9[70]			*Idem*
Mali	May 1982 - May 1993	30.4							June 1988	29.4		Japan (38.7) Saudi Arabia (5.9) ADF (45)	Public enterprise sector
	Dec. 1983 - May 1985	40.5											
	Nov. 1985 - March 1987	22.9[36]											
	Aug. 1988 - June 1990	12.7	Aug. 1988 - Aug. 1991	35.6[14]									
					Dec. 1990	50.3		EC (20); AfDB (18)	June 1990	40.7		FAC/CCCE (50.8) SDC (6.9) Netherlands (5.2) Germany (2.9)	Agricultural sector/ investment
			Aug. 1992 - March 1996	79.2[5]					Mar. 1994	18.2			Economic recovery
									Jan. 1995	34.3			Education
			Apr. 1996 - Apr. 1999	62.0[5]					June 1996	41.6			Economic management
Mauritania	July 1980 - March 1982[38]	29.7[37]											
	June 1981 - March 1982	25.8											
	April 1985 - April 1986	12.0											
	April 1986 - April 1987	12.0	Sept.1986 - May 1989	23.7[39]									
	May 1987 - May 1988	10.0			June 1987	11.7	21.4	Saudi Arabia (4.8) Germany (2.8)					
			May 1989 - Jan. 1995	50.9[5]									
									Feb. 1990	19.4		CCCE (8) Germany (2) WFP (1)	Agricultural sector/ investment
									June 1990	30.7		Japan (50) SFD (19.8) KFAED (13.7) AFESD (10.3) Abu Dhabi Fund (6.1) Spain (5) Germany (4)	Public enterprises
									Nov. 1990	2.9[6]			Public enterprises
									Nov. 1991	1.9[6]			*Idem*
			Jan. 1995 - Jan. 1998	42.8[5]					Dec. 1992	1.6[6]			*Idem*
									Jan. 1994	1.0[6]			*Idem*
Mozambique									May 1985	45.5			Economic rehabilitation programme I
			June 1987 - June 1990	42.7					Aug. 1987	54.5	(18.6)	Switzerland (11.2)	Economic rehabilitation programme II
									May 1989	68.2		United Kingdom (17.5) Switzerland (12.8) Germany (10.9) Sweden (9.4) Finland (8.9)	Economic rehabilitation programme III
			June 1990 - Dec. 1995	130.1[5]									
									June 1992	132		Switzerland (6)	Economic recovery
			June 1996 - June 1999	75.6[5]					June 1994	141.7			Economic recovery II
Myanmar	June 1981 - June 1982	27.0											
Nepal	Dec. 1985 - April 1987	18.7											
			Oct. 1987 - Oct. 1990	26.1	Mar. 1987	40.9							
					June 1989	46.2	KfW (5)						
			Oct. 1992 - Oct. 1995	33.6[5]									

Table 31 (contd.)

Country	IMF arrangements: Stand-by/Extended Facility Period	Stand-by/Extended Facility Amount	SAF/ESAF Period	SAF/ESAF Amount	World Bank loans and credits: Structural adjustment Date of approval	Structural adjustment Amount IDA	Structural adjustment Amount African Facility[1]	Structural adjustment Amount Co-financing[2]	Sector and other adjustment Date of approval	Sector and other adjustment Amount IDA	Sector and other adjustment Amount African Facility[1]	Sector and other adjustment Amount Co-financing[2]	Purpose
Niger	Oct. 1983 - Dec. 1984	18.0											
	Dec. 1984 - Dec. 1985	16.0											
	Dec. 1985 - Dec. 1986	13.5	Nov. 1986 - Dec. 1988	23.6[40]	Feb. 1986	18.3	36.6						
	Dec. 1986 - Dec. 1987	10.1											
			Dec. 1988 - Dec. 1991	47.2[41]					June 1987	46	15.4		Public enterprises
	Mar. 1994 - Mar. 1995	18.6							Mar. 1994	18.2			Economic recovery
			June 1996 - June 1999	58[5]									
Rwanda	Oct. 1979 - Oct. 1980	5.0[42]											
			Apr. 1991 - Apr. 1994	30.7[26]	June 1991	67.5		Switzerland (SwF 10); Belgium (BF 400)					
									Jan. 1995	34.3			Emergency recovery
Samoa	Aug. 1979 - Aug. 1980	0.7[42]											
	June 1983 - June 1984	3.4											
	July 1984 - July 1985	3.4											
Sao Tome and Principe					June 1987	3.1	2.3	ADF (8.5)					
			June 1989 - June 1992	2.8[43]	June 1990	7.5		ADF(12) IMF (2.6)					
Sierra Leone	Nov. 1979 - Nov. 1980	17.0											
	March 1981 - Feb. 1984[45]	186.0[44]											
	Feb. 1984 - Feb. 1985	50.2[46]							June 1984	20.3		IFAD (5.4)	Agriculture
	Nov. 1986 - Nov. 1987	23.2	Nov. 1986 - Nov. 1989	40.5[47]					Apr. 1992	31.4			Reconstruction Imports
									Apr. 1992	0.2[6]			*Idem*
									Dec. 1992	0.2[6]			*Idem*
					Oct. 1993	35.9							
			Mar. 1994 - Mar. 1995	27.0	Jan. 1994	0.1 [6]							
			Mar. 1994 - Mar. 1997	101.9[5]	Dec. 1994	0.2 [6]							
					Dec. 1995	0.2 [70]							
Somalia	Feb. 1980 - Feb. 1981	11.5[48]											
	July 1981 - July 1982	43.1											
	July 1982 - Jan. 1984	60.0											
	Feb. 1985 - Sept.1986	22.1											
	June 1987 - Feb.1989	33.2	June 1987 - June 1990	30.9[26]					June 1989	54.2		ADF (25); BITS (0.5)	Agriculture
Sudan	May 1979 - May 1982[49]	427.0											
	Feb. 1982 - Feb. 1983	198.0[50]											
	Feb. 1983 - March 1984	170.0											
	June 1984 - June 1985	90.0[51]							June 1983	46.4			Agricultural rehabilitation
Togo	June 1979 - Dec. 1980	15.0[52]											
	Feb. 1981 - Feb. 1983	47.5[53]											
	March 1983 - April 1984	21.4			May 1983	36.9							
	May 1984 - May 1985	19.0											
	May 1985 - May 1986	15.4			May 1985	28.1							
					Aug. 1985		9.7						
	June 1986 - April 1988	23.0											
	March 1988 - April 1989	13.0	March 1988 - May 1989	26.9[54]	Mar. 1988	33.0		ADF (17.3); Japan (20.8)					
			May 1989 - May 1993	46.1[5]	Mar. 1989	0.1[6]							
					Oct. 1989	0.2[6]							
					Dec. 1990	39.6							
									Feb. 1991	10.2			Population and health
			Sept.1994 - Sept. 1997	65.2[5]									
									Apr. 1996	32.2			Economic recovery and adjustment

Table 31 (contd.)

Country	IMF arrangements: Stand-by/Extended Facility Period	Stand-by/Extended Facility Amount	SAF/ESAF Period	SAF/ESAF Amount	World Bank loans and credits: Structural adjustment Date of approval	Structural adjustment Amount IDA	Structural adjustment Amount African Facility[1]	Structural adjustment Amount Co-financing[2]	Sector and other adjustment Date of approval	Sector and other adjustment Amount IDA	Sector and other adjustment Amount African Facility [1]	Sector and other adjustment Amount Co-financing [2]	Purpose
Uganda	Jan. 1980 - Dec. 1980	12.5											
	June 1981 - June 1982	112.5											
	Aug. 1982 - Aug. 1983	112.5											
									Feb. 1983	63.5		Italy/DCD (10)	Agricultural rehabilitation
	Sept.1983 - Sept. 1984	95.0[55]											Reconstruction
									May 1984	47.2			
			June 1987 - April 1989	69.7[56]					Sept.1987	50.9	18.8	United Kingdom/ODA (16)	Economic recovery
			April 1989 - June 1994	219.2[57]					Mar. 1989	1.3[6]			*Idem*
									Apr. 1989	19[6]			*Idem*
									Oct. 1989	1.2[6]			*Idem*
									Feb. 1990	98.1	(12.8)		*Idem*
									Nov. 1990	1.5[6]			*Idem*
									Dec. 1990	69.5			Agriculture
					Dec. 1991	91.9			Nov. 1991	1.2[6]			Economic recovery
			Sept. 1994 - Nov. 1997	120.5[5]	Dec. 1992	1.0[6]			May 1993	72.8			Finance
					May 1994	57.8			Jan. 1994	0.8[6]			*Idem*
					Dec.1994	0.4[6]							
United Republic of Tanzania	Sept.1980 - June 1982	179.6[58]											
	Aug. 1986 - Feb. 1988	64.2							Nov. 1986	41.3	38.2	Germany (17.3); Switzerland (9.2); United Kingdom (7.3)	Multi-sector rehabilitation
			Oct. 1987 - Oct. 1990	74.9									
									Jan. 1988	22.5	(26.0)	Saudi Arabia (4)	Multi-sector rehabilitation
									Dec. 1988	97.6		ADF (24)	Industrial rehabilitation and trade adjustment
												United Kingdom (15)	*Idem*
												Switzerland (14)	*Idem*
												Netherlands (10)	Industrial rehabilitation
									Mar. 1989	9.7[6]			Industry and trade adjustment
									Oct. 1989	8.3[6]			Agriculture
									Mar. 1990	150.4		Netherlands (40) United Kingdom (20)	
									Dec. 1990	11.5[6]			Agriculture
			July 1991 - July 1994	181.9[5]					Nov. 1991	8.6[6]			*Idem*
									Nov. 1991	150.2		United Kingdom (16.8) Switzerland (6.6)	Finance
									Dec. 1992	8.2[6]			*Idem*
			Nov. 1996 - Nov. 1999	161.6[5]									
Yemen	Mar. 1996 - June 1997	132.4							Apr. 1996	53.7			Economic recovery
Zambia	April 1978 - April 1980	250.0											
	May 1981 - May 1984[24]	800.0[66]											
	April 1983 - April 1984	211.5[67]											
	July 1984 - April 1986	225[68]							Jan. 1985	24.7	(10)	AfDB (23.4); CIDA (6.8); USAID (5); Switzerland (4.8)	Agricultural rehabilitation
	Feb. 1986 - Feb. 1988	229.8[69]											
									March 1991	149.6		Germany (18.8)	Economic recovery
									March 1991	19.4[6]			*Idem*
									May 1992	7.6[6]			*Idem*
									June 1992	146			Privatization and industry
									Dec. 1992	15.1[6]			*Idem*
									June 1993	72.1			*Idem*
									Aug .1993	7.0[6]			*Idem*
									Jan..1994	12.1[6]			*Idem*
									Mar.1994	108.9			Economic and social adj.
									Dec. 1994	9.7[6]			*Idem*
									June 1995	19.1			*Idem*
			Dec. 1995-Dec. 1998	701.7[5]					July 1995	90.0			Economic recovery and investment promotion
									Dec. 1995	8[70]			*Idem*
									June 1996	16.0			*Idem*

Sources: IMF, *Annual Report* (various issues); *IMF Survey* (various issues); World Bank, *Annual Report* (various issues); *World Bank News* (various issues).

1. Special Facility for Sub-Saharan Africa; amounts in parentheses are expressed in millions of dollars.
2. Including special joint financing and bilateral support; amounts are in millions of dollars.
3. Extended Facility arrangement, cancelled as of June 1982.
4. SDR 580 mn. not purchased.
5. ESAF.
6. Supplemental credit.
7. SDR 6.3 mn. not purchased.
8. SDR 15.8 mn. not purchased.
9. SDR 2.4 mn. not purchased.
10. SDR 13.5 mn. not purchased.
11. SDR 7.5 mn. not purchased.
12. SDR 3.8 mn. not purchased.
13. SDR 3.7 mn. not purchased.
14. SDR 10.2 mn. not purchased.
15. Cancelled as of April 1985.
16. SDR 3.4 mn. not purchased.
17. SDR 13.5 mn. not purchased.
18. SDR 6.0 mn. not purchased.
19. SDR 11.6 mn. not purchased.
20. SDR 1.5 mn. not purchased.
21. Supported by IMF; (SDR 1.88 mn. purchased in first credit tranche).
22. Additional financing.
23. SDR 21.4 mn. not purchased.
24. Extended Facility arrangement.
25. SDR 39 mn. not purchased.
26. SDR 22.1 mn. not purchased.
27. Cancelled as of April 1981; SDR 54.5 mn. not purchased.
28. Augmented in June 1981 with SDR 32.3 mn.; SDR 70 mn. not purchased at expiration of arrangement.
29. SDR 33.2 mn. not purchased.
30. Cancelled as of May 1989; SDR 10.5 mn. not purchased.
31. Cancelled as of May 1980; SDR 20.9 mn. not purchased.
32. SDR 9.9 mn. not purchased.
33. IBRD loan.
34. Original amount decreased from SDR 100 mn.; SDR 24 mn. not purchased.
35. Extended Facility arrangement; cancelled as of August 1986.
36. SDR 6.6 mn.not purchased.
37. SDR 20.8 mn. not purchased.
38. Cancelled as of May 1981.
39. SDR 6.8 mn. not purchased.
40. SDR 6.7 mn. not purchased.
41. ESAF; original amount decreased from SDR 50.6 mn.
42. Not purchased.
43. SDR 2 mn. not purchased.
44. Including an increase of SDR 22.3 mn. in June 1981. SDR 152 mn. not purchased.
45. Extended Facility arrangement; cancelled as of April 1982.
46. SDR 31.2 mn. not purchased.
47. SDR 29 mn. not purchased.
48. SDR 5.5 mn. not purchased.
49. Extended Facility arrangement; cancelled as of February 1982; SDR 176 mn. not purchased.
50. SDR 128 mn. not purchased.
51. SDR 70 mn. not purchased.
52. SDR 1.75 mn. not purchased.
53. SDR 40.3 mn. not purchased.
54. SDR 19.2 mn. not purchased.
55. SDR 30.0 mn. not purchased.
56. SDR 19.9 mn. not purchased.
57. ESAF; original amount increased from SDR 179.3 mn.
58. SDR 154.6 mn. not purchased.
59. SDR 9.0 mn. not purchased.
60. Cancelled as of June 1982; SDR 737 mn. not purchased.
61. SDR 30 mn. not purchased.
62. Cancelled as of April 1987; SDR 166.6 mn. not purchased.
63. SDR 58.2 mn. not purchased.
64. SDR 75.5 mn. not purchased.
65. SDR 41.4 mn. not purchased.
66. Cancelled as of July 1982; SDR 500 mn. not purchased.
67. SDR 67.5 mn. not purchased.
68. Cancelled as of Feb. 1986; SDR 145 mn. not purchased.
69. Cancelled as of May 1987; SDR 194.8 mn. not purchased.
70. From IDA reflows.