EGYPT
HUMAN DEVELOPMENT REPORT 2000/2001

The Digital Divide is a problem that is facing the world today and is ever growing due to the great rise in the social gaps all over the world.

The solution to such a problem is based on the government's ability to invest a large percentage of its GNP in the development of Information Technology infrastructure, as well as the people's ability to understand new technologies and how to deal with them.

The government of Egypt has adopted a national program to close the digital gap between Egypt and the rest of the world between different Governorates internally.

EGYPT

HUMAN DEVELOPMENT REPORT 2000/2001

inp Institute of National Planning

This report is the major output of the Human Development Project, executed by the Institute of National Planning (INP) under the project document EGY/96/012 of technical co-operation with the United Nations Development Programme (UNDP)

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Preface

At this sensitive time in our history, where the last few months have been witnessing so dramatic international events, one needs only to refer to the 11th of September and the events in Palestine to underline the different faces globalization may take.

While some would restrict globalization to the economic aspects, and more specifically to the liberalization of investment and trade and the worldwide impact of rapid and incessant change in information and technology, globalization, in fact, goes beyond these aspects to encompass also social, political, and cultural aspects.

The allure of globalization, especially during the last decade, has tempted some to argue that the role of the national state is regressing. This is true if we limit this role to direct involvement in investment and production, but seeing this role in a comprehensive way suggests that it changes from direct to indirect management of the national economy. Moreover, this role will continue to be of prime importance so long as human development objectives are not integrally achieved and whereas regional and international conflicts are threatening peoples of the world.

The main justification for supporting the move towards globalization lies in the gains that it offers to the world through benefiting from trade liberalization, specialization and internal division of labor. On the other hand, some people think that these gains will accrue only to the developed industrial countries at a cost incurred by developing countries; so that the rich will become richer and the poor will become poorer. There are also those who oppose globalization within the industrial countries, especially among the environment guardians and the labor trade unions. In the developing countries, some people fear the negative impact of globalization on culture and the national identity, among other threats.

All this indicates that we are living in a continuously changing world. People are usually afraid of what is new, magnifying its negative effects without perhaps investigating its positive impact. I think that the best approach is to tame the new globalization wave and use it for the benefit of humanity.

It is possible for Egypt, and other developing countries, to achieve gains from globalization; derived essentially from widening the scope of the market within the framework of economic liberalization, gains from the ongoing technological revolution in information, communication, and production techniques; gains from capital movement and foreign direct investment.

These gains would, hopefully, translate into higher economic growth and improve job opportunities and favorably impacts on the countries' balance of payments.

Moreover, we must all work to ensure that globalization achieves two main objectives: equitable income distribution at the international level between developed and developing countries while preserving the variety of cultures leading, thus, to the development of the whole mankind; and internal equitable income distribution especially in developing countries.

This Report, which is the sixth EHDR, is devoted to tackling the issue of how globalization interacts with human development in Egypt. The 1999 HDR of the UNDP has also focussed on the same issue but with reference to the international community. Both reports might be seen as a response to the globalization tide. This response highlights the opportunities and the threats that globalization involves from the viewpoint of human development. Needless to say that the objective is to help people and policy makers take advantage of the opportunities and take guard against the threats.

Targeting this objective, the present Report moves from the conceptualization of globalization and the opportunities and threats it involves to a sort of assessment of the Egyptians' economic well-being in a globalized world. Then, the Report examines the challenges to which Egypt's sectors of production are exposed through globalization. To what extent globalization impacts upon environment and potentialities of sustainable development in Egypt is a major question the Report addresses, besides its concern with showing where Egypt stands in a technology and information led globalization. The Report also deals with the status and potentialities of Egypt's human capital under globalization. Finally, it assesses the stock of Egypt's social capital and tries to establish a link between its development and the Arab Economic Integration.

Indeed, globalization calls for the participation of all actors including the international, regional, and national institutions, private as well as public, governmental or non-governmental. With globalization, we all need to recruit and develop the available resources to meet the challenges it imposes to all of us.

Prof. Dr. Osman Mohamed Osman
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and
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Abbreviations

ADNA	Agriculturally-Driven Non-Agricultural Activities
ADP	Agricultural Domestic Products
AI	Agricultural Income
APR	Agricultural Policy Reform
ARC	Agricultural Research Center
B2C	Business to Customer
BA	Bar Association
BCM	Billion Cubic Meters
BHDI	Broader Human Development Index
BOP	Balance of Payment
CAIP	Cairo Air Improvement Project
CAPMAS	Central Agency for Public Mobilization and Statistics
CBE	Central bank of Egypt
CDW	Construction and Demolition Waste
CM	Cubic Meters
EEAA	Egyptian Environmental Affairs Agency
E-EUPA	Egypt- European Union Partnership Agreement
EG	Economic Growth
EIMP	Environment Information and Monitoring Program
ERSAP	Economic Reform and Structural Adjustment Program
EU	European Union
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
FSU	Former Soviet Union
GATS	General Agreement on Trade in Services
GHG	Greenhouse Gases
GOE	Government of Egypt
GSM	Global System for Mobiles
HD	Human Development
HDI	Human Development Index
IDSC	Information and Decision Support Center
IMF	International Monetary Fund
INP	Institute of National Planning
ISP	Internet Service Providers
IT	Information Technology
ITI	Information Technology Institute
MAC	Mass Access Centers
MEA	Ministry of Environmental Affairs
MENA	MiddleEast and North Africa
MF	Million Feddans
MFN	Most Favoured Nation
MNC	Multinational Corporation
MOA	Ministry of Agriculture

MPR	Market Penetration Ratio
MSW	Municipal Solid Waste
NAFTA	American Free Trade Area
NCAR	National Council for Agricultural Research
NDP	National Democratic Party
NFA	Net Foreign Assets
NIR	Net International Reserves
NT	National Treatment
PA	People's Assembly
QOL	Quality of Life
R&D	Research and Development
RCA	Revealed Comparative Advantages
SCU	Supreme Council of Universities
SEAM	Support for Environmental Assessment and Management
SFD	Social Fund for Development
SME	Small and Medium Entreprises
SNA	System of National Accounts
SSN	Social Safety Net
TNC	Trans-National Corporation
TOE	Tons of Oil Equivalent
TRIPS	Trade Intellectual Properties Agreement
TRIPS	Trade Related Aspects of Intellectual Property Righrs
TSP	Total Suspended Particles
UNCTAD	United Nations Conference for Trade and Development
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNIDO	United Nations Industrial Development Organization
USE	Unified Custom Tariffs of Egypt
WB	World Bank
WCU	World Conversation Union
WDR	World Development Report
WHO	World Health Organization
WRI	World Resource Institute
WTO	World Trade Organization

Executive Summary

I - Globalization and Human Development

The main justification for supporting the move towards globalization lies in the gains that it offers to the world through benefiting from trade liberalization, specialization and international division of labor.

Opportunities and Threats

Globalization, like any other process, combines both opportunities and threats. The most significant potential gains are production efficiency, consumer welfare, increased competition, innovation, gains from free capital movements, and enhanced labor mobility. The most serious threats are inequitable income distribution, greater economic fluctuation *(recently exemplified by the 11 September, 2001 events),* the collapse of national industries, loss of cultural identity, and threats to national security. The final outcome will depend on the actions of both the country in question and the international community.

Extent of Globalization

The combination of falling trade barriers and advances in the technologies of communication and transportation have brought the world much closer. Aggregate data show that the ratio of exports and imports to GDP has increased sharply, especially in the period following 1972. Developing countries are now exporting more manufactured goods and less primary commodities (like food and raw materials) than before.

Trade expansion has been accompanied by unprecedented capital mobility, especially since the 1980s. The bulk of the increase in capital flows came from the private sector (in the form of FDI and portfolio investment). The importance of capital inflow to developing countries lies, in part, in that it supplements domestic savings to levels that enable the recipient economies to grow more rapidly. Further, it enables these economies to access advanced knowledge about production techniques, management practices, and sometimes export markets. At the same time, capital inflows can be costly. They can complicate macroeconomic management and expose countries to the risk of sudden capital flight. Data are hard to come by on labor mobility.

Nature of Recent Globalization

The current wave of globalization in trade is characterized by: (1) a rise of intra-industry trade, (2) an increased break of production geographically, (3) new countries with high trade-GDP ratios, and (4) large exports of manufactured goods from low-to high-wage countries. As for the potential for reversal of the current wave of globalization, there are those who argue that political pressure will eventually increase to erect higher trade barriers, slow down immigration, and restrict capital flows. To others, the probability of a reversal of the current wave of globalization seems low based on the steady expansion and cyclical stability experienced by developed countries in the post-war period, supportive of open trade regimes, while social insurance schemes and escape clauses in world trade agreements ease the negative effects.

Effects on Human Development

The most basic argument in favor of a positive association between globalization and poverty reduction contends that greater openness increases competition and access to capital, technology, cheaper imports, and larger export markets. Greater competition leads to more efficient allocation of resources and a division of labor that enables countries to focus on doing what they can do best. Greater access to capital, technology, cheaper imports and markets allow countries to do more than they would have been able to do on their own. As a result, per capita income, including per capita income of the poor, increases faster than would otherwise be the case.

This argument may not hold in practice however. First, there is no guarantee that openness will increase per capita income. Similarly, even if openness is associated with faster growth in per capita income, there is no guarantee that poverty will decline.

Globalization, like any other process, combines both opportunities and threats.

Opening to international trade should rather be part of a broader development strategy targeting growth and poverty alleviation.

In short, not all developing countries are benefiting from the nexus of globalization, growth and poverty reduction. Much depends on what these countries can do alongside globalization. In principle, openness should reduce inequality between developed and developing countries. These predictions may not hold in practice.

There has been a significant increase in the average per capita income of the rich and poor countries during the twentieth century. However, progress has been uneven, with the richest countries doing relatively better than the poorest. Data from the World Bank shows that the average per capita income in the richest twenty countries was fifteen times that of the poorest twenty in 1960. This gap has since doubled to reach thirty times, with per capita incomes in the poorest twenty countries hardly changing, if not falling in some cases. It can be concluded that globalization is associated with greater inequality across countries.

As for inequality within countries, the evidence suggests that there is no simple association between changes in trade openness and changes in inequality. Changes in inequality will very much depend on the initial conditions (such as the distribution of human capital, land and material capital) at the time of globalization, and on government actions to enable the poor and the unskilled to benefit from increased openness.

Measuring changes in the quality of life over time is not easy. Nor are attempts to relate this change to globalization.

II- Globalization and the Economic Well Being of Egyptians

Egypt's development over the last four decades of the twentieth century (1960-1999) has been marked by an economic struggle towards raising living standards and a social struggle towards enhancing human development and providing equal opportunity to all. Egypt today is more prosperous than forty years ago.

Based on Egypt's data, opening to international trade has not necessarily been growth enhancing in itself. It should rather be part of a broader development strategy targeting growth and poverty alleviation. However, the impact of external capital flows has persistently been positive.

Increased GNP has been helpful in alleviating poverty in the sense of enhancing the share of income of the poor. But this does not ensure improvement of the social conditions of the deprived, such as education, health care, access to credit, legal protection and other means of empowerment.

Income Growth and Human Development

A broader human development index (BHDI) using disaggregated data at the governorate level for Egypt is useful. Regression analysis showed a significantly positive effect of *both* economic growth (EG) on human development (HD) and of HD on EG. It seems that for Egypt to benefit from globalization it should achieve rapid sustainable growth with equity.

At the governorate level in Egypt, over the first sub-period (1986-90), the four urban governorates showed mixed interrelations between growth and human development indicators, while during the second sub-period (1990-96), all moved to balanced linkages, with economic growth and human development moving together in a mutually reinforcing way. The nine governorates in Lower Egypt showed mixed performances, while five of the eight governorates of Upper Egypt remained trapped in a vicious circle of low EG and low HD. Further research on the pattern of distribution of economic and human development benefits among social groups and/or income brackets is warranted.

III - The Challenges of Globalization for Egypt's Sectors of Production

Globalization is likely to have various impacts on Egyptian sectors of production especially agriculture, industry and the financial sector.

Agriculture

Agriculture is an important sector that contributes nineteen per cent of GNP, and is

the main source of food and employment. However, due to government intervention and implicit taxation, in the seventies and eighties, and to other internal factors, agricultural production growth was slow and dependence on food imports increased to limits threatening national food security. This forced Egypt to change its policies and to launch Agricultural Policy Reform (APR), even before the commencement of the ERSAP.

APR had several effects on agricultural productivity and other important areas of life in rural Egypt. This included an increase in the cropped area from 11.2 million feddans to about 12.5 million feddans, only a slight increase in the agricultural labor force due to the higher growth rates witnessed by other economic sectors, an increase in agricultural income of 10.5 per cent, and an improvement of nutritional status in terms of both calories and total protein intake. Finally, under the globalization process, privatization is assumed to be conducive to technology transfer and the upgrading of management, and consequently to the strengthening of the research capabilities of the sector.

The possible effects of globalization on Egyptian agriculture are assessed through three main variables: agricultural foreign trade, farm price variability and germplasm (genetic resources).

Industry

Egypt's manufacturing sector had experienced some improvements by the end of the 1990s. Its growth rate was the highest among all economic sectors; it rose to 7 per cent on average in the years 1996-98, which more than doubled the industrial base between 1990 and 1998. Also, the contribution of Egypt's manufacturing sector to value added at the national level had reached its highest level over the 1990s amounting to 19 per cent in 1998/99. This level of performance is close to most of the countries in the MENA region. Yet, it is lower than the average for developing countries.

Egypt's industry is heavily natural resource-based. This reflects itself in the bias of the structure of manufacturing output towards chemicals, food and textiles. The share of high-tech products in Egypt's manufactured exports is lower than the share of these products in manufactured output, due to an inability to channel the output structure into the export structure. It is argued that productive capacities and knowledge levels are closely linked to the ability of the economy to export and compete internationally.

With the growing tendency to establish free trade areas, the globalization process in the manufacturing sector would affect not only the international position of the sector, but would also have an impact on its domestic presence. In this case, local competitiveness of the sector is an important issue that has to be explored.

Evidence shows that lower wages do not constitute any comparative advantage to Egypt's manufacturing sector because of the relatively low levels of productivity of manufacturing workers. Most of the commodities in which Egypt has revealed comparative advantages (RCA) are natural resource-intensive or labor-based industries. Moreover, the increase in the degree and speed of globalization through the introduction of regional free trade areas will endanger the domestic competitiveness of this sector. International competition will extend to the domestic market through the phasing out of tariffs. The high tariff wall that the sector enjoyed for long decades could collapse and open the economy to competition from strong advanced countries.

This critical situation raises the question of the appropriate export strategy, and whether the Egyptian economy should specialize in producing and exporting labor-intensive products. However, given the very low labor productivity of manufacturing employees in Egypt, this strategy would suppress wages and exacerbate the poverty problem, unless preceded by a modernization plan.

Financial Sector

The global financial architecture, external pressures facing the Egyptian economy since 1997/98, and suggested measures to mitigate financial vulnerability are analyzed. The relatively strong economic

It is argued that productive capacities and knowledge levels are closely linked to the ability of the economy to export and compete internationally.

Under the globalization process, privatization is assumed to be conducive to technology transfer and the upgrading of management, and consequently to the strengthening of the research capabilities of the sector.

Environmental resources and ecological services are essential for human welfare, and are not easily substituted by human and physical capital.

fundamentals resulting from the ERSAP helped Egypt lessen the impact of the financial crises faced by other emerging markets in 1997-1998. Nevertheless, by the end of the decade, the Egyptian economy faced unfavorable conditions, partly due to the accumulation of external pressures, and the internal economic policies that were applied to overcome their impact. The outcome of these pressures resulted in a deterioration of Egypt's external position which reflected in a slower pace of real GDP growth rates.

Being exposed to, and affected by, external shocks does not necessarily imply vulnerability. There is a set of selected macro and financial sector indicators that can investigate the vulnerability of an economy. Nonetheless, it is within the realm of economic management and governance that controlling for the degree of exposure matters most. This could be achieved through strengthening the external position, controlling monetary aggregates, carefully selecting fiscal policy options, inflation avoidance, and strengthening the financial sector.

IV- The Environment And Sustainable Development

It is believed that globalization will affect the environment worldwide. Climate change is one of the most serious environmental threats to human survival. Egypt's current emission rates are considered moderate (about one metric ton per capita in 1996) compared to the USA and Australia (15 metric tons per capita for the same year). Most carbon dioxide emissions originate in the developed countries, although the consequences of climate change would affect all countries. Unfortunately the effects would hit poor countries harder than rich ones. The Nile Delta is threatened with rising sea levels due to the melting of polar ice caps.

The ozone layer is vital for life on planet Earth. The depletion of this layer is viewed as a main threat of the globalization process. Protection of this layer entails costs that will burden the developing economies. Egypt is committed to the objective of decreasing ozone depletion. This commitment has been manifested in the various international agreements that Egypt has signed to contribute to the protection of the ozone layer, such as the Vienna Convention and Montreal Protocol in 1998.

Environment Degradation and Per Capita Income

Sustainable development is achieved when an economy is on a path where future generations have economic opportunities that are at least as large as earlier generations. There is a fear that economic development today is leading to the accumulation of physical and human capital, but is also depleting the stock of natural capital of the world. Environmental resources and ecological services are essential for human welfare, and are not easily substituted by human and physical capital.

Effect of Growth on Environment Sustainability

Developing countries, including Egypt, fear that open markets and competition may destroy national industries due to their inability to compete with the high productivity of industries in developed countries. Global demand for certain industrial products may give a comparative edge for some developing countries, leading to the profit motive being prioritized over the environment and preservation of resources.

Global energy use has increased by over 70 per cent in the past twenty-five years, and is expected to grow by another 50 per cent by 2010. This will contribute to climate change since the industrial countries have adopted a "business as usual" scenario at the last meeting on climate change held in the Hague, November 2000. Egypt has been experiencing some improvements in energy utilization and efficiency, and is also pursuing cleaner production measures through the implementation of environmental projects.

Scarcity of fresh water and fertile soil for agricultural production are two of the major problems that face the Egyptian economy. Government policies for a better environment in the field of agriculture include controlling and reducing the amount of

fertilizers, pesticides, and other added chemicals used in agriculture.

A boom in the tourism industry will undoubtedly incorporate a positive as well as a negative impact on the biodiversity of the Egyptian environment. Regulating tourism, educating patrons, and controlling infrastructure expansion will protect the environment and guarantee a continuous and prolonged flow of tourists. Sustainable tourism development is a far-sighted concept that should be adopted.

Policy Recommendations And Planning Implications

The environment is threatened under globalization. Enacting and enforcing legislation to avoid environmental degradation and exploitation in Egypt can mitigate such problems. Governmental efforts to overcome these problems include the development of an environmental policy which includes long-term solutions to environmental problems, sound economic and financial principles, enhanced community participation and the introduction of environment - friendly industries.

V- Technology and Information Led Globalization

The world has had a series of industrial revolutions. The third industrial revolution can be mainly attributed to the discovery of electronics. During the 1970s, the development of electronics and integrated circuits enabled their use to progress in almost every domain, especially in aviation and aerospace. Since the early 1990s, the hi-tech revolution has been extending to cover essential and basic activities and functions all over the world. This revolution manifests itself in the domains of information technology, communication, and biotechnology. Successive industrial revolutions highlight the fact that globalization is inseparable from the elements of control and organization inherent in the hi-tech revolution, especially in the field of electronics and their applications, and in the exponential growth of information and communication technology. Information and communication tools are becoming increasingly critical for economic progress and the growth of human capabilities. They are transforming the way we live, learn, and work.

The Digital Divide

The ‘digital divide’ refers to the gap between those who have access to, and can effectively use, new information and communication tools and those who cannot. It has been widening as the information ‘haves’ outpace the ‘have-nots’ in gaining access to electronic resources. Dependence on information technology is quite limited within the Egyptian economy but Egypt has been implementing several projects in order to improve its IT status. These projects aim at helping children, as well as adults, to familiarize themselves with the new technological transformation. The increase in the number of telephone lines is a clear indication that the digital divide is narrowing in Egypt. Other telecommunication services have been introduced over the last four years. The Global System for Mobiles (GSM) was introduced in 1996. The PC industry is controlled by the private sector and data on PC density is hard to collect at the national level. The Internet was introduced in Egypt by the IDSC and the Supreme Council of Universities (SCU) in 1993, but its use is dependent on access to PCs. Although E-Commerce in Egypt started in 1998, it is still very difficult to measure its volume.

The most important characteristics contributing to the digital divide in Egypt can be summarized under the following four categories: rural / urban, high income / low income, literate / illiterate, and bilingual / single language.

The National Program for Closing the Digital Gap

The Egyptian government has applied several programs to close the digital gap. In 1999 a new Ministry for Communication and Information Technology was established to implement a broad "National Program" of strategies, policies, programs and projects. The main strategies and policies of this program are: government commitment to expanding information and communication technology, building human capacity in education and training,

Sustainable tourism development is a far-sighted concept that should be adopted.

The ‘digital divide’ refers to the gap between those who have access to, and can effectively use, new information and communication tools and those who cannot.

Building up human capabilities is a core operational step to achieve human development.

expanding basic connectivity to people everywhere, creating more affordable access to information tools, and creating new opportunities for SMEs through e-commerce and e-business. The major projects of the national program include infrastructure (telephone mainlines, mobile lines, etc), human resource development and the establishment of mass access centers (MAC).

Globalization and Technology

Under globalization the supply of technology is subject to an imperfect market ranging from monopolistic competition to the oligopoly and monopoly practiced by huge actors at the international level. One might therefore argue that the free transfer of technology, or of innovation in particular, is far from being the reality. In recent years economic, technological and legal factors have contributed to restricting technological mobility at the international level.

These restrictive factors have been investigated, using the field of pharmaceutical manufacturing and trading as a case study. Developing a pharmaceutical product goes through research and development (R&D), manufacturing and post - manufacturing supervision, and the introduction of a new medicine takes about ten years and requires an expenditure ranging from US$ 40 million to US$ 250 million.

Available indicators show that the employment and underemployment levels have been declining in line with the implementation of ERSAP policies.

The pharmaceutical market structure is characterized by the dominance of a few enormous firms over the whole process of medicine manufacturing. The oligopolistic market increases the ability of firms to influence the pricing system, endangering consumer choice and welfare, and resulting in distorted prices that are inefficient in allocating resources or distributing incomes. The increasing power of large firms allows them to exploit the *fruits* of small firms' efforts in R&D, integrate them into their macro invention circuit, and thereby get the larger share in the rent of technological scarcity. Pharmaceutical industry actors are able to influence the organs of state through intervention in public policies.

The rules of the Trade Related Intellectual Properties Agreement (TRIPS) might negatively affect the Egyptian pharmaceutical industry and the health of the poor through higher medicine prices. In order for Egypt to face the threats of globalization to this industry it must formulate a national program to include a disease prevention policy, a treatment policy which targets particularly vulnerable social groups *(the poor and women with difficult social conditions)*, and a medicine policy. The latter should aim at encouraging R&D, inventions and industrial deepening.

VI- Globalization and Human Capital

Building up human capabilities is a core operational step to achieve human development. Employment opportunities are the means by which this capital is recycled to generate, on a larger scale, the different economic, social, political, scientific, technological, and cultural aspects of development. Given this, what is the impact of globalization on the Egyptian labor market?

Globalization and the Egyptian Labor Market

Globalization could impact on a number of dimensions of the Egyptian labor market, of which the most important are the employment level, the demand for labor, the wage level, labor market segmentation, and labor force mobility. However, since the overall condition of the labor market depends on national, regional and international factors, it becomes difficult to attribute all observed changes solely to globalization.

Features of the Labor Market in Egypt

Available indicators show that the employment and underemployment levels have been declining in line with the implementation of ERSAP policies. The female unemployment rate, especially among educated females, is much higher than the male, and the education level of the Egyptian labor force implies that around half of the labor force cannot deal with the new techniques and rapid technological advances characterizing globalization. In addition, there is evidence for a general pattern of deterioration in real wage rates in

the Egyptian labor market up to the late 1990s, with different patterns according to the type of activity (public/private) and the type of labor (male/female).

The Egyptian labor market suffers from several types of segmentation, namely public/private, male / female, and formal/informal. The informal labor market appears to be the last resort for all those not absorbed by the formal market. This sector is increasingly becoming a reservoir of unskilled and low-wage labor, increasing the severity of poverty and social marginalization, especially in urban areas, with dangerous economic and social implications.

Empirical evidence does not support the notion that under globalization there will be a higher degree of mobility for individuals. This is due to at least two reasons: a) an emerging distinction between three different categories of labor force, based on the level of skill, leading to bias against the many in the unskilled labor category who will be able to find only temporary and unstable employment, and b) the GATS is likely to foster inequality in labor mobility across countries. Recent empirical evidence on the Egyptian labor market shows a tendency towards using foreign labor, especially those who are highly skilled and capable of dealing with new advanced production methods.

In Egypt, globalization is likely to help integrate a small elite into the process of production and capital accumulation of the global economy. Meanwhile, the number of those marginalized and excluded from the production and income cycles is on the increase, to the extent that poverty is associated with economic and social exclusion.

The GOE has proposed a set of short, medium, and long-term social policies that aim to mitigate the adverse effects of globalization. Among these are the establishment of an appropriate social security net; the development of employment offices, to be effective in matching unemployed job seekers with available job vacancies; the development and upgrading of the capabilities of unemployed workers; sustainable and equitable economic growth; support for human development; and political, institutional and legislative reform.

The informal labor market appears to be the last resort for all those not absorbed by the formal market.

VII- Egypt's Social Capital and Arab Economic Integration

Social capital is one of the most important assets of nations. It is inseparable from the societal mechanisms that deal with the different aspects of life, and which have been subject to continuous, generally gradual, change worldwide over the past centuries. Starting in the 1990s, the accelerated process of globalization has been fostering these changes in a disruptive way. Egypt has largely escaped this threat, but there is no guarantee that this will remain the case, given ever more rapid globalization. Moreover, different forms of regional integration also have an impact on the social capital of the countries, and/or societies, involved. The question arises as to how the stock of social capital in Egypt may be influenced by the process of globalization, and the ways to protect it against future shocks.

Social capital is one of the most important assets of nations.

Measuring Social Capital

The concept of social capital includes both government institutions and formal and informal civic groupings. The presence of social capital in a society is manifest when teamwork becomes customary, and individualistic behavior does not present a significant obstacle to collective action. In Egypt, both the rural and urban poor and the middle classes form mutual aid societies, known as Jam'eyyat. Another indication of a strong stock of social capital, although very difficult to measure, are the apparently large sums of money devoted to charitable work in Egypt.

Several methods can be used to measure social capital in Egypt. These are: number of formal organizations (political parties, business groups, cooperatives, trade unions, professional associations and Jam'eyyat), membership of these organizations, cohesiveness, level of cooperation and the social values of society.

Globalization has had mixed effects on the accumulation of social capital in Egypt.

Social Capital and Development

Social capital, is conducive to development. It reduces the cost of transactions due to the reduced need for regulation or control to ensure good faith in all types of business. It also fosters strong norms of generalized reciprocity which is more efficient than mistrust as an organizing principal, and enhances the formation of physical and financial capital.

Globalization and Social Capital

The impact of globalization on social capital depends on many variables. One of these is the type of ties that constitutes the basis of social capital. It could be argued that the rapid movement of people, ideas, news and images could weaken solidarity ties among members of groups that previously lived together. Another important variable is exposure to the international mass media, which may pose a serious threat of generating a socio-cultural dichotomy in Egyptian society, and may dampen commitment, especially among the youth, to the values that previously cemented societal groupings at different levels. On the other hand, the process of globalization might give rise to new forms of social capital. The demonstration effect could lead to the establishment of human rights, environmental and women groups. Globalization could also empower some groups in countries of the South, which have been marginalized or even persecuted within these countries.

The Effects of Globalization on Egyptian Social Capital

The process of globalization has had several effects on social capital formation in Egypt. It created favorable conditions for the accumulation of new social capital and introduced novel ideas about human rights, calls for the protection of the environment and appeals to encourage the private sector. The process of globalization has empowered some organizations of the emerging civil society, thus strengthening the kind of social capital they embody. It has also empowered collective action by Egyptian citizens through various forms of assistance rendered to Egyptian organizations operating in these new areas of public involvement. On the negative side, foreign aid to organizations that express views that are critical of government action has raised the specter of “foreign interference” in national affairs, and has provided the opportunity to bring their activities under government control, or to ban them altogether. On balance, globalization has had mixed effects on the accumulation of social capital in Egypt.

Regional Integration and Social Capital

Effective economic cooperation, when supported by the socio-political will to move towards total economic integration, can help in the accumulation of social capital and to enlarge its scope of action. Arab economic cooperation in its different forms (trade, investment, aid, and labor movements) could be a way to achieve more balanced relations with the strong economic blocks and to alleviate the negative impact of globalization. However, this is not a substitute to globalization. On the contrary, it is believed that regional cooperation can increase the opportunities for benefiting socially and economically from globalization.

Regional cooperation can increase the opportunities for benefiting socially and economically from globalization.

Chapter One

Globalization and Human Development

"While globalization has positive, innovative, dynamic aspects - it also has negative, disruptive, marginalizing aspects"

(UNDP, Human Development Report, 1999)

Introduction

Globalization is an old phenomenon in new attire. There is no general agreement on the definition of recent globalization or on the fields that it covers. Some authors restrict globalization to the economic fields and more specifically define it to include the liberalization of investment and trade and the similarity of production techniques. Others enlarge its scope so as to encompass such domains as social issues, politics, and culture, besides economics.

Moreover, there is controversy over who are the main actors in this process. Some authors suggest that the role of the state has receded or has even been phased out, whereas others see that the role of the state is still primordial, although it has developed and changed from direct involvement in production and investment to guidance and supervision. If this is a correct view, then there are evidently new roles for many other actors, including multinationals, international institutions, and governmental and non-governmental organizations (NGOs).

The main justification for supporting the move towards globalization lies in the gains that it offers to the world through benefiting from trade liberalization, specialization and international division of labor. On the other hand, some people think that these gains will accrue only to the developed industrial countries, at a cost incurred by developing countries, so that the rich will become richer and the poor will become poorer. There are also those who oppose globalization within the industrial countries, especially among the environment protectionists and labor trade unions. In the developing countries, some people fear the negative impact of globalization on culture and the national identity, among other threats.

All this indicates that we are living in a continuously changing world. People are usually afraid of what is new, magnifying its negative effects without perhaps investigating its positive impact. This reminds us of the opposition to using machines at the beginning of the industrial revolution. However, soon enough, man was able to subject machines to his service. Will the world be able to tame the new globalization wave and use it for the benefit of humanity? Such taming would endeavor to achieve two main objectives: equitable income distribution at the international level between advanced and developing countries, while preserving the variety of cultures, leading to the development of the whole of humanity; and internal equitable income distribution, especially in developing countries.

In all cases, globalization has multifaceted impacts on both developing and developed countries, in the economic, social and political domains, as well as on men and women and their inter-relationships, and on the role of the state. The study of these impacts would warrant numerous detailed investigations.

Globalization: Origins and Definition

The last two decades witnessed several developments, which resulted in the phenomenon currently known as 'globalization'. The most important of these developments are:

1- The emphasis of the USA, under President Reagan, on the importance of the private sector in leading the economy

Will the world be able to tame the new globalization wave and use it for the benefit of humanity?

in almost all its activities in what became known as Reaganomics. This made liberalization and opening up of the markets a prerequisite for receiving aid. This trend was later reinforced by the disintegration of the former Soviet Union (FSU).

2- The revolution in information technology (IT) and the means of communication, which turned the world into a small village. The emergence of the Internet and its expanding use in economic activities has resulted in further changes in the international economy and relations among people and nations.

3- The movements towards regionalism and integration in large economic blocks such as the European Union (EU), North American Free Trade Area (NAFTA), ASEAN and others.

4- The growth of multinational corporations (MNCs) to unprecedented size and their increased share in world production and international trade. Their continued progress would warrant more liberal policies and further opening up of the world markets.

5- The poor performance of many developing economies especially those dominated by public sector enterprises. The 1980s are considered to be the 'lost decade' from an economic development perspective, especially for Africa, where countries faced severe problems, namely: low or even negative growth rates; high rates of unemployment; relatively high rates of inflation; chronic balance of payments deficits; and heavy foreign indebtedness. Many developing countries were not able to service their foreign debt. To alleviate the burden of these debts, the rules of the game require an agreement with the IMF. One of the guiding principles of the reform programs to be agreed upon with the IMF is reforming economic policies towards liberalization, dependence on the private sector, the adoption of market friendly policies and privatization of public enterprises.

6- Breakthroughs in production technologies in various sectors based on genetic engineering, new materials and more efficient techniques of production.

7- The rapid growth of financial assets (portfolio investment, derivatives, securitization, etc.) to the extent that their value has exceeded the value of physical assets. The instantaneous movement of these financial assets from one country to the rest of the world requires the removal of currency and foreign exchange controls.

The impact of globalization will not be limited to the economic sphere only, but will extend to the political, social and cultural spheres as well.

These are the most important factors underlying the phenomenon of globalization. It is believed, however, that the impact of globalization will not be limited to the economic sphere only, but will extend to the political, social and cultural spheres as well.

On the political front, there has been a growing emphasis on the importance of such notions as democracy, respect for human rights, transparency, good governance, and other political concepts widely used today.

On the social side, there is greater stress on the importance of education and the need to allocate sufficient funds to provide adequate and broad-based education services to achieve what is called 'the democracy of education'. There is also a growing concern for spending on health care and providing social security networks. Moreover, there is increased awareness of the need to eradicate poverty, or at least alleviate its impact on the poorest in society.

With regard the influence of globalization on culture, opinions differ considerably. Some suggest that "culture cloning" will occur, to the extent that Americanization will become synonymous with globalization, as represented by the worldwide consumption of such products as the Big Burger, Coca Cola, Disney, and Nike etc. Some have even labeled the world civilization of today as 'McWorld'. On the other hand, there is growing resistance against this trend and an insistence on the need to preserve national culture and the distinctive civilization of various nations. The argument is that culture cloning would reduce diversity, and that humanity could lose the variety and multiplicity required to

achieve further progress and refinement. However, change and evolution are the only 'constants' of life. Civilizations that do not benefit from change deteriorate and possibly vanish. However, introducing change to different cultures and civilizations should not mean giving up their distinctive identity. Indeed, achieving the right balance between evolution and authenticity is considered one of the great challenges confronting states facing the new wave of globalization.

From the economic perspective, there seems to be a general agreement that globalization refers mainly to trade liberalization, dependence on market forces, predominance of the private sector and the privatization of public enterprises. This should lead to the free movement of goods, individuals and capital flows; and hence to a greater mutual interdependence between the economies of different states, within the framework of reduced barriers to financial and commodity flows.

Globalization: Opportunities and Threats

As mentioned earlier, the proponents of globalization herald the economic gains and benefits that will accrue from this new trend to developing countries and to the industrial world alike. However, its opponents anticipate great harm for developing countries in particular, threatening them with the closing down of factories, widespread unemployment, and the inability to compete with other countries' goods and services in their own local markets, notwithstanding fierce competition in external markets. It is difficult to side with either group. A balanced viewpoint would suggest that globalization, like any other process, combines both opportunities and threats, as shown below.

Opportunities

It is possible for Egypt and other developing countries to achieve gains from globalization, derived essentially from widening the scope of the market within the framework of economic liberalization. The most important potential gains are:

- **Production Efficiency:** Developing countries can establish larger scale production units in order to benefit from the enlarged market opportunities, thus benefiting from comparative and competitive advantages. This could lead to the re-organization of the international division of labor and specialization; thereby increasing world economic prosperity through trade creation, as the economic theory predicted.

- **Consumer Welfare:** It is expected that, due to globalization, and the resulting effects of the reduction of customs duties and other trade barriers on the flow of international trade, the prices of consumerable commodities will be reduced, thus increasing consumer welfare.

- **Increased Competition:** There is no doubt that globalization would increase the degree of beneficial competition, or innovative arrangements, among different producers. This would lead to the survival of the fittest, thus achieving efficiency in the field of exchange.

- **The Importance of Innovation:** As emphasized by Schumpeter, innovation is important in bringing about evolution and progress. With the current speed of information technology, it is expected that developing countries would benefit from these innovations. However, since bound by intellectual property rights, these countries have to bear certain charges in order to be able to use such innovations.

- **Gains from Free Capital Movements:** It is now widely accepted that foreign direct investment is considered one of the essential driving forces of accelerated economic growth, as attested from the experience of the South-East Asian countries. Globalization allows other developing countries the opportunity to benefit from free capital movements, provided they offer an attractive local environment conducive for this kind of investment. Furthermore, the rapid movement of portfolio investments may enable developing countries to mobilize international savings. They further stimulate the development of emerging capital markets.

Civilizations that do not benefit from change deteriorate and possibly vanish.

Introducing change to different cultures and civilizations should not mean giving up their distinctive identity.

If free movement of labor were to occur it would open up markets for the labor forces of developing countries.

- **Enhanced Labor Mobility:** Despite the resistance of some countries to the free movement of labor, this is considered part of the economic liberalization package accompanying globalization. If free movement of labor were to occur - and it has not, so far - it would open up markets for the labor forces of developing countries, especially those that suffer from overpopulation and tight labor market conditions. This would improve job opportunities and favorably impact on the Balance of Payment (BOP) through remittances.

Threats

Despite these potential benefits, globalization involves threats to some countries and some population groups that are unable to benefit from available opportunities and adopt competitiveness enhancing policies. The most important threats are:

- **Inequitable Income Distribution:** The evolution of the free market system within capitalist countries has led to an inequitable pattern of income distribution among different population groups within the same country, thus requiring public intervention to redistribute income to the advantage of the poor. If the same system is applied at the global level, it is expected to yield similar results between rich and poor countries: the rich would get richer and the poor would get poorer. In the absence of a universal financial mechanism to correct this imbalance, inequity may be permanent, and may threaten world stability.

- **Greater Economic Fluctuations:** Removal of currency controls and free capital movements due to the liberalization of capital transactions in the balance of payments, could lead to greater fluctuations in the world economy. Perhaps the experiences of Mexico (1994), the former Soviet Union (1995) and South East Asia (1997) are the most salient examples of this. Moreover, as the contagion rapidly spreads, the whole world, especially developing economies, could be exposed to destructive economic fluctuations.

- **Collapse of National Industries:** Developing countries, such as Egypt, fear that the open markets and enhanced competition resulting from globalization would destroy local industries due to an inability to compete with high productivity industries in the industrial countries. Should this happen, it would lead to reduced job opportunities, increased unemployment and increasing poverty.

- **Cultural Identity:** Countries that have cultures different from the West are concerned that globalization would erase the main features of their distinctive cultures. This is a real threat that can only be stopped through education and a belief in the authenticity of different civilizations and different societies. This does not mean that new and positive aspects of globalization should not be adopted. Rather, societies should demonstrate the relevance and benefits of their civilizations, many of which carry a needed spiritual dimension. Cultural interdependence could become mutual, instead of being unidirectional (See Box 1.1).

Box (1.1)

Globalization and Cultural Encounter in Egypt

The positive impacts of globalization in Egypt may be expected to generate a big rise in life expectancy, a significant increase in the literacy rate, and the sustainable growth of per capita income. Nonetheless, perhaps the worst long-term effect of globalization on Egyptian society has been the growth of social and cultural dualism. This has been the result of the availability of a much greater variety of foreign goods, and of the exposure of a much higher proportion of the population to these goods and to a powerful mass media greatly influenced by foreign tastes. It is difficult to think of a period in Egypt's modern history during which local culture has been subjected to greater external influences than it has been during the last two or three decades.

One important example of the impact of globalization on Egyptian culture is its influence on the national language. The Arabic language is being progressively mixed with European languages in aspects of every-day life. Multinational firms, for example, require foreign language-speakers, and are attractive employers. The high value placed on the "foreign" impacts on the national language, which gradually becomes subsidiary to the language of business, and by association, impacts on aspects of culture such as indigenous music, national dress, national styles in architecture, food preferences, choice of recreation, and even on choice of consumer product. And as in other countries, it is the younger generations who are disproportionately influenced by western culture. The impact should not be underestimated. One could claim that damage to local cultures is of a similar nature to damage to the physical environment, and could be considered a form of 'unsustainable' development.

While virtually all of society may be exposed to the influence of alien cultures and patterns of consumption, not all sections of the population succumb. Those with insufficient purchasing power, or who are more deeply immersed in local traditions, or both, often feel a sense of betrayal by those who are more westernized, given their greater income or their longer exposure to western cultural influences. In turn, this contributes towards an increasing social gap, creates income and cultural enclaves, and weakens national cohesion, adding to the possibility of social and political turmoil. This aspect of globalization could by itself go a long way towards explaining the growth of the phenomenon commonly known as 'religious fanaticism'.

Coping with the Challenges

Become exposed to new and often severe forms of competition from which one had hitherto been protected, is a basic outcome of globalization. The weaker party - whether in trade, industry, or otherwise, must learn to cope if it is to survive. Communities of all types, whether based on race, belief systems or national loyalties, which have attempted to isolate themselves from the process of globalization have, sooner or later, been constrained to open up to the world, if not through choice then through circumstance. Although many nations have passed through some period of relative and beneficial isolation, contemporary history demonstrates that the advance of globalization is hard, if not impossible to check. A country like Egypt cannot hope to stem the tide, but there are ways to ensure that the impact of globalization will be less damaging to social relations and cultural identity.

The main issue is how to pursue the process of cultural interaction with the outside world at our own appropriate pace. In the sphere of culture, it is not a question of how to increase 'efficiency' and enhance 'competitiveness'. In the process of raising economic efficiency and enhancing competitiveness, it is clear that the old ways of life and the traditional system of values will need to be reappraised. The greatest challenge to national culture comes from the communications revolution, associated with recent developments in the mass media. In this respect, just as in economics, a developing country such as Egypt may feel the need to provide some kind of 'protection'. But protection may prove difficult or futile, since ideas, life styles and belief systems are no less seductive than goods and services, especially when supported by a powerful mass media. As the power of the state diminishes in an increasingly market-oriented society, and with the increasing influence of multinational corporations and international institutions, civil society must develop sufficiently to fill the gap. Greater international cooperation, whether among states or among civil society associations, may help identify and provide for the services that the state is no longer able to deliver on its own. In Egypt, there has been a rapid growth in the activity and influence of civil society, and a greater participation in regional and international action to face problems created or aggravated by globalization.

The question for a country like Egypt is what the net effect of globalization is likely to be.

- **Maintaining National Security:** Globalization is meant to reduce the probabilities of warfare and enhance the opportunities for peace. The confidentiality required for national security purposes is likely to dwindle, and this process will be further affected by advanced technology, sophisticated communication devices and the Internet.. This could create vulnerabilities in the case of conflict; particularly since confrontation and conflict appear to be permanent characteristics of our world. For Egypt and the Arab region, as long as no just and permanent peace settlement with Israel has been reached, conflict will remain a reality, and will require preventative measures for national security.

The Net Outcome

Given the opportunities and threats to which countries are exposed under globalization, the question arises as to whether countries should choose to become isolated from global trends and close their doors in order to preserve their interests.

Given that there is neither a free ride nor a free lunch, the question for a country like Egypt is what the net effect of globalization is likely to be. The answer depends on both the actions of the country in question and the international community. Countries must follow a strategy that would maximize benefits from globalization opportunities and minimize the negative threats of globalization. This would require policies capable of redressing distortions in the national economy, raising production efficiency and deepening specialization in the fields where each country enjoys comparative and competitive advantages. Improved education, higher productivity, efficient administration and good governance are the main guarantees for a net positive effect from globalization.

Countries must follow a strategy that would maximize benefits from globalization opportunities and minimize the negative threats of globalization.

The influence of globalization depends also on the actions of the international community, with its various actors: the superpowers, international organizations, and the arrangements and agreements between various states, as well as their real commitment to development goals. The world system is not likely to create in the near future an international body able to redress inequitable income distribution worldwide resulting from globalization, as would be the case within a national economy. Further, no state is ready to relinquish part of its sovereignty to such an international authority. Given these realities, can the international community make arrangements to coordinate international and national interest within the framework of a global society? This remains to be seen.

Finally, insulation from the world market deprives countries of much needed capital, technology, low cost and better quality goods and services, as well as the opportunity to create jobs in the export sectors. However, the unqualified integration of developing countries into world markets can be equally costly, as the recent crises in East Asia, Russia and Brazil demonstrate. Capital can fly suddenly, leading to the collapse of national currencies and a rise in unemployment. Industries may fail to compete in a more competitive environment due to excessive protection in the past. Wage disparity between skilled and unskilled labor may escalate and developing countries may only be able to attract polluting industries.

The Extent of Globalization

How well connected is the world economy? Is globalization today different from previous episodes? These questions are assessed below.

Trade in Goods and Services

Falling trade barriers and advances in the technologies of communication and transportation have brought the world much closer. Aggregate data show that the ratio of exports and imports to GDP has increased sharply, especially in the period following 1972 (Figure1.1). Further, the data tends to underestimate the extent of world integration, in view of the increasing share of non-traded goods and services (e.g. education, health, finance, insurance, real estate and domestic trade) in the GDP of most economies. While developed countries are trading more with the rest of the world, so are developing countries. Developing countries are, in addition, now exporting

more manufactured goods and less primary commodities (like food and raw materials) than before.

But these developments do not apply across the board (Figure 1.2). The bulk of exports in the developing world are mostly concentrated in East Asia. At the other extreme are Sub-Saharan Africa and South Asia who export a much lower proportion to the rest of the world. In between lie Latin America, Europe and Central Asia, and MENA. Over the past two decades, MENA and Europe have been loosing ground, while East Asia has become increasingly integrated into the world economy.

Factor Mobility

Trade expansion has been accompanied by unprecedented capital mobility, especially since the 1980s (Figure 1.3). The bulk of the increase in capital flows came from the private sector (in the form of FDI and portfolio investment). Net official flows of aid have fallen, but foreign direct investment became a much more important channel for capital mobility than portfolio investment. In addition, FDI is increasing steadily, while portfolio investment and credit have fallen in the wake of the financial crises of the late 1990s.

Like trade, the flow of capital to different developing regions has become increasingly non-uniform. (Figure 1.4) illustrates this for FDI flows to developing countries. While Latin America and East Asia attracted around 78 percent of FDI flows to developing countries in the late 1990s, Sub-Saharan Africa, MENA and South Asia collectively attracted only 8 percent.

The importance of capital inflow to developing countries lies in part in that it supplements domestic savings to levels that enable the recipient economies to grow more rapidly. Furthermore, it enables these economies to access advanced knowledge about production techniques, management practices, and sometimes export markets. These benefits are as important for development as the physical capital itself. At the same time, however, capital inflows can be costly. Indeed, they complicate macroeconomic management and expose countries to the risk of sudden capital flight. These costs can be high in terms of economic activity and employment.

Figure 1.1: Trade in Goods and Services as Share of GDP

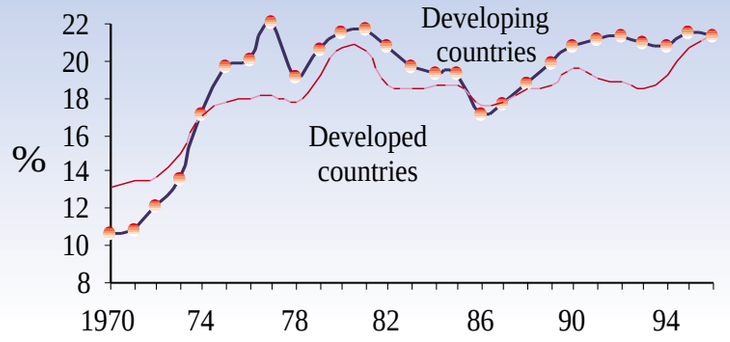


Figure 1.2: Share of World Exports by Developing Region,1980-1999.

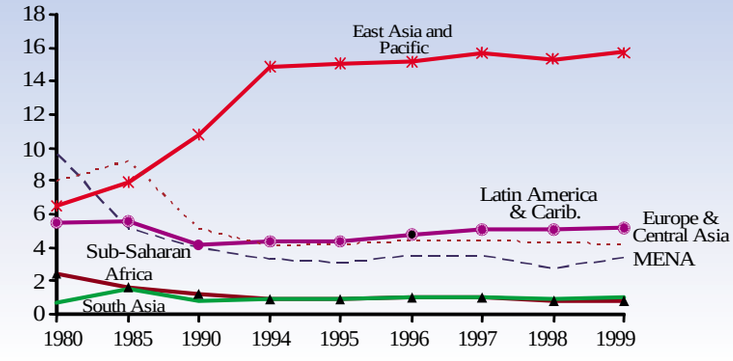


Figure 1.3: Net Long-Term Flows to Developing Countries, 1970-99.

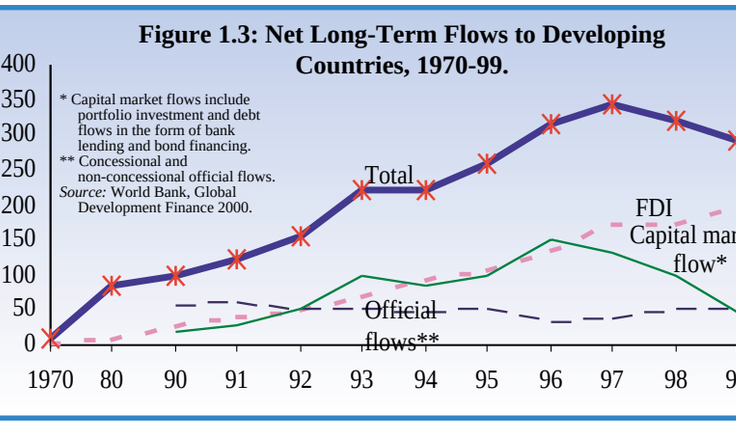
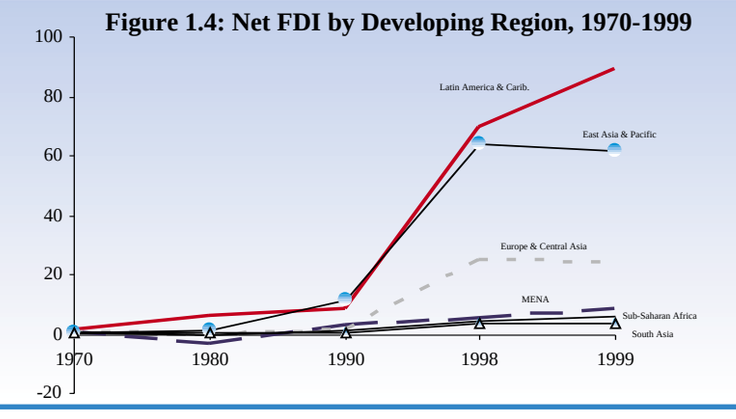


Figure 1.4: Net FDI by Developing Region, 1970-1999



Remittances from migration in countries like Egypt constitute an important source of foreign exchange earnings.

As for labor mobility, data is hard to come by. However, the IMF reports that the size of the labor force born in other countries has increased by one-half during the period 1965-90. The same report further notes that most migration is between developing countries. Remittances from migration in countries like Egypt constitute an important source of foreign exchange earnings.

The Nature of Recent Globalization

The current episode of world integration is not new. Historically, the ratio of trade to GDP grew from 1820 to 1913, followed by a period of low integration between 1913 and 1950 due to the two world wars and protectionism during the Great Depression. After 1950, however, industrial economies led the integration process to reach, by the 1970s, the levels of integration previously witnessed at the turn of the century. Since then, the trade liberalization policies adopted by several developing countries have intensified the level of world integration to levels not seen before.

While the recent wave of globalization is not new, trade is now much deeper and capital flows are more far-reaching than before. According to Krugman, the current wave of globalization in trade is characterized by: (1) a rise in intra-industry trade, (2) an increased break in production geographically, (3) new countries with high trade-GDP ratios, and (4) large exports of manufactured goods from low- to high-wage countries. Similarly, although the level of capital inflow to GDP is not higher now than it used to be a hundred years ago, it is different in character. Fishlow notes that earlier capital inflows were received by governments in colonized countries, and were devoted to a narrow range of infrastructure projects. Today, both the nature of the borrowers and the allocations of capital are more diverse.

What is equally interesting is that the potential for reversal of the current wave of globalization is considered much lower than before. There are those who argue that political pressure will eventually mount to erect higher trade barriers, slow down immigration, and restrict capital flows. To others, however, the probability of a reversal of the current wave of globalization seems low based on the rationale that the steady expansion and cyclical stability experienced by developed countries in the post-war period supports open trade regimes. Most countries now have social insurance schemes (e.g. for unemployment) and escape clauses in world trade agreements, both of which ease the negative effects of competition from imports. In addition, the new wave of globalization is creating its own supporters at home, especially those engaged in exports. Accordingly, globalization seems to be here to stay.

Globalization and Human Development

If globalization is here to stay, at least for the foreseeable future, it is important to ask several questions. Does it reduce or increase poverty? Does it equalize income across and within nations, or does it worsen income distribution? More broadly, does it improve the quality of life or not? We will discuss these questions in turn.

Globalization and Poverty

The most basic argument in favor of a positive association between globalization and poverty reduction contends that greater openness increases competition and access to capital, technology, cheaper imports, and larger export markets. Greater competition leads to a more efficient allocation of resources and a division of labor that enables countries to focus on doing what they can do best. Greater access to capital, technology, cheaper imports and markets allows countries to do more than they would have been able to do on their own. As a result, per capita income, including per capita income of the poor, increases faster than would otherwise be the case.

This argument may not hold in practice however. First, there is no guarantee that openness will increase per capita income. The main reason for this is that openness is but one of the preconditions for faster economic growth. Indeed, standard growth regressions often include on the right hand side a number of initial conditions (e.g. initial per capita income, human capital stock, a measure of inequality) and a number of policy variables (including openness, rule of law, size of government). Where countries do not possess other pro growth conditions, openness may not necessarily lead to higher per capita income. Similarly, even if openness is associated with faster growth in per capita income, there is no guarantee that poverty will

decline. Poverty is influenced by a host of factors in addition to growth. These factors include the pattern of public expenditures, the nature of existing safety nets, and the institutional arrangements for sharing the benefits of growth. Moreover, openness could affect employment adversely, at least in the short run, as it takes time for labor and capital to shift from import-competing industries to expanding, newly competitive export industries.

Given the theoretical ambiguity about the relationship between openness, growth, and poverty, there is, however, some evidence to support three broad conclusions. First, openness is associated with faster economic growth. Second, economic growth is associated with a reduction in poverty. Third, these positive results hold on average, leaving some countries, regions, and groups adversely affected by globalization.

On the link between openness and growth, an IMF study (2000) shows that global per capita growth increased five-fold during the twentieth century. Most of the increase took place in the second half of the century, when trade and later financial liberalization increased rapidly (Figure 1.5). In contrast, per capita income declined to less than 1 per cent in the period 1913-1950, when the world became less integrated because of excessive protection and pervasive capital controls.

Other studies reach similar conclusions. For example, Sachs and Warner (1995) find a positive association between growth and openness. Frankel and Romer (1999) show that an increase of one percent in the ratio of trade to GDP increases per capita income by 1.5-2 per cent. Edwards (1998) finds supporting evidence to the notion that openness improves total factor productivity and faster economic growth.

On the link between globalization and poverty, Figure 1.6 shows that countries, which achieve rapid economic growth, also manage to reduce poverty (East Asia). Similarly, it shows that countries that grow the least fail to eradicate poverty (Sub-Saharan Africa). MENA and Latin American countries fall somewhere in between, where both regions grow modestly and reduce poverty also modestly. The magnitude of the impact of growth in per capita income on the poor, for a large sample, shows that growth in the income of the poor (defined as the bottom fifth of the population) rises about one-for-one with the growth rate of overall per capita income.

This is not to say that poverty has been eliminated. On the contrary, despite an overall reduction in the number of the poor worldwide (those living on less than $1 a day), the variation across regions is striking. Most importantly, the absolute number of the poor has declined appreciably only in East Asia, but has increased almost everywhere else. The incidence of poverty, defined as the share of the population living on less than $1 a day, has also declined in East Asia, and to a lesser degree in the rest of the developing world. However, it has increased in Europe and Central Asia, following the dramatic change in their economic systems. In short, not all developing countries are benefiting from the nexus of globalization, growth and poverty reduction. Much depends on what these countries do along with globalization.

On the link between globalization and poverty, countries, which achieve rapid economic growth, also manage to reduce poverty

Figure 1.5 : Global per Capita Real GDP Growth
(Average annual percentage change)

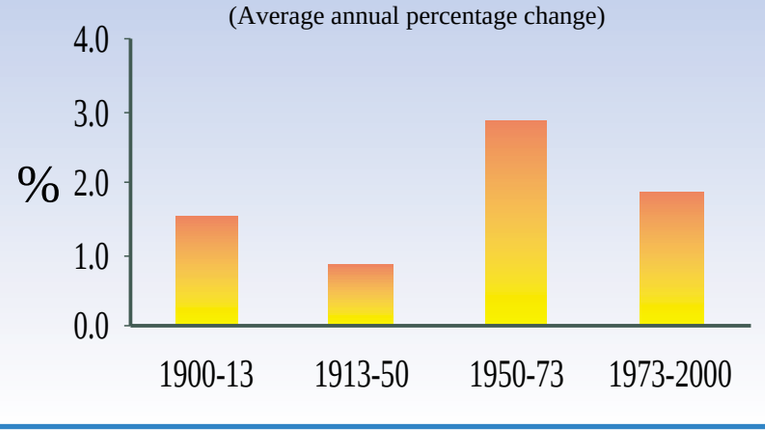
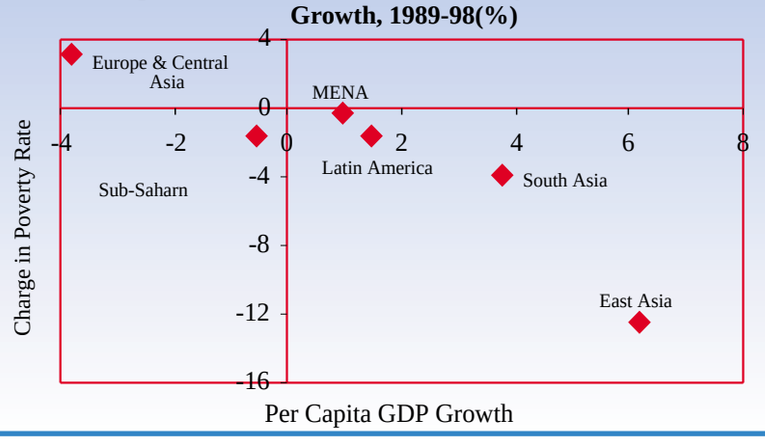


Figure 1.6 : Relation between Poverty Reduction and Growth, 1989-98(%)



Globalization and Inequality

In principle, openness should reduce inequality between developed and developing countries. The rapid economic growth of those developing countries which opened their markets to free trade during the last three decades of the twentieth century has stimulated a large empirical and theoretical literature on the impact of trade on growth. There seems to be much evidence of a link between openness and growth during the last part of the century. In fact, international trade seems not only to have a positive impact on growth, but also seems to facilitate convergence between economies as predicted by neoclassical growth models (Williamson, 1996). This is because openness increases the demand for the factor of production that is relatively abundant in the liberalizing country (labor in developing countries), but relatively scarce in the rest of the world. Higher demand for labor in developing countries should bring about pressure for price (wage) equalization across countries (according to the Stolper-Samuelson theorem), thereby raising the standard of living in the poorer countries. Within rich countries, openness is expected to increase income disparity between skilled and unskilled labor as capital migrates to developing countries for cheaper unskilled labor.

Globalization is not the only factor that affects the demand for and incomes of different factors of production.

These predictions may not hold in practice for several reasons. Because labor is less mobile than capital, it is more vulnerable to taxation. Put differently, while capital can escape taxation, labor cannot. The relative mobility of capital and the relative fixity of labor also tend to weaken the bargaining position of trade unions for higher wages in countries where trade unions are strong. Finally, and perhaps more importantly, globalization is not the only factor that affects the demand for and incomes of different factors of production. The pattern of production, investment and technology has important effects on the demand for labor with different skills, with unpredictable effects on income distribution within countries.

In view of this ambiguity, it is important to look at the evidence to see whether there is any association between globalization and equality across and within countries. As for inequality across countries, the data show a significant increase in the average per capita income of the rich and poor countries during the twentieth century. However, progress has been uneven, with the richest countries doing relatively better than the poorest. According to the IMF (2000), the richest quarter of the population saw a six-fold increase in their per capita income, while the poorest quarter saw only an increase of less than three-fold (Figure 1.7). In recent decades, which coincided with increased globalization, data from the World Bank shows that the average per capita income in the richest twenty countries was fifteen times that of the poorest twenty in 1960. This gap has since doubled to reach thirty times, with per capita incomes in the poorest twenty countries hardly changing, if not falling in some cases. It can therefore be concluded that globalization is associated with greater inequality across countries.

As for inequality within countries, the evidence suggests that there is no simple association between the changes in trade openness and the changes in inequality (Figure 1.7). There are, of course, countries that experienced increased inequality as they integrated globally. In the developing world, such countries include Argentina, Chile, Colombia, Costa Rica, Uruguay and China. Similarly, trade liberalization in Mexico in the mid-to-late 1980s led to a relatively higher increase in the wages of high-skilled workers relative to unskilled. And in the US, the evidence shows that wages of high school educated males fell 20 per cent between the mid 1970s and mid 1990s. But, as Figure 1.8 suggests, there are also many countries where inequality fell with more trade openness. Accordingly, it can be concluded that changes in inequality will largely depend on the initial conditions (such as the distribution of human capital, land and capital) at the time of globalization, as well as government actions to enable the poor and the unskilled to benefit from more openness.

Globalization and the Quality of Life

Incomes do not tell the whole story, and it is indeed possible to find countries that did

not make a lot of progress in terms of per capita income but succeeded in improving the quality of life for its citizens (e.g. Sri Lanka). The question is whether globalization is necessarily associated with such improvements.

In principle, the answer to this question is unclear. On the one hand, it could be argued that globalization improves the quality of life because it exposes the population of the world to living conditions across nations. As a result, it increases the pressure on governments to allocate public investment to improve health, education and the environment. At the same time, globalization facilitates the process of acquiring the latest innovations that have bearing on the quality of life. On the other hand, the counter-argument is that globalization encourages conspicuous consumption of goods and services that cannot be afforded by the poorer consumers in developing countries. It also leads to greater competition from imports, which causes dislocation and unemployment, at least in the short run. Furthermore, it encourages the migration of polluting industries from developed to developing countries, to benefit from less restrictive environmental regulations and weak enforcement.

Given these divergent arguments, the issue becomes once again an inquiry into the results of empirical investigations regarding the link between globalization and quality of life. But this is a difficult task. Measuring changes in quality of life over time is not easy. Nor are attempts to relate this change to globalization.

Data show that the human development gap between poor and rich nations has declined over time. But the data also reveal that progress has been uneven across regions. In the developed world, North America and Western Europe, as expected, enjoy a HDI above the cut off point of 0.8 for the category of high human development. In the developing world, only Latin America and East Asia (excluding China) fit this category. At the other end of the scale, South Asia and Africa lag behind, with a HDI below the low development cut off point of 0.5.

Figure 1.7 : Per Capita GDP
(1990 purchasing-power-parity dollars)

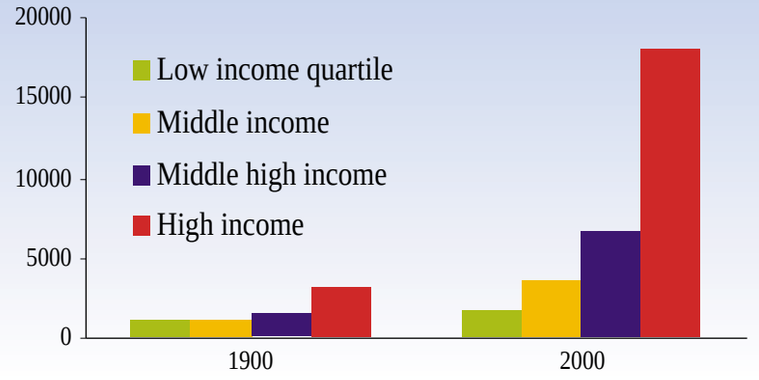
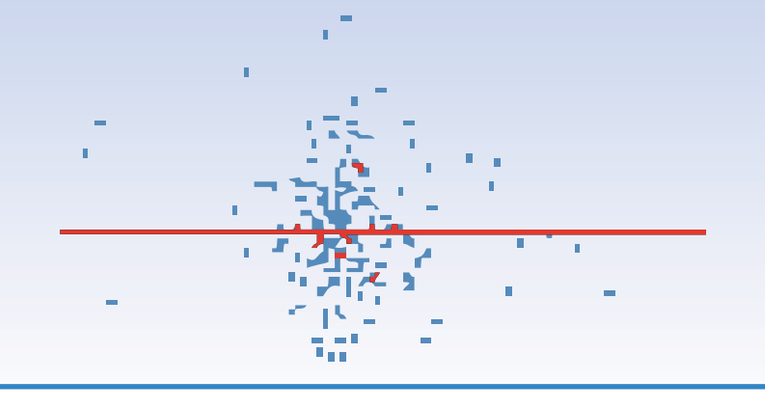


Figure 1.8 : The Relation Beteen Inequality and Growth



Box (1.2)
Women and globalization
By
The National Council for Women

In general, globalization has strengthened women's position. Their participation in market economy has also been fostered by the tide of globalization. However, this development has been uneven whether between countries or among different socioeconomic groups within the same country. Indeed, globalization has also led to more deepening of gender inequality on these two levels.

The issue of women and globalization is one that concerns all mankind, men or women. The subject of globalization and its impact on women has been of considerable interest in most countries. The main objective of the following paragraphs is to carry this subject to the core of Egypt's interest in the gender issues.

Tackling this question in different works allover the world reveals that there are two views. The first considers that globalization has been a source of more pressures and responsibilities on women, while the second views globalization as a source of several advantages for women. In fact, both trends are bearing non-negligible traits of reality. On the one hand, globalization is incontestably a source of more pressures and responsibilities on women due, among other reasons, to:

- Its negative impacts on the distribution of income among developed and developing countries, socioeconomic strata within the same country,
- Its destructive impact on many traditional employment opportunities,
- Its demonstration effect on consumption especially in the developing countries and among the low-income and poor people all over the world,
- Its concomitant socio-political disturbances resulting from excessive individualism, regressive moral and spiritual values, and increasing market aggressiveness especially towards vulnerable countries and socioeconomic groups within the same country, and
- The proliferation of violence and counter-violence resulting from its failure, till now at least, to attenuate the aggressive, and excessive, use of power at the different societal levels, including the international community.

On the other hand, globalization is likely to be advantageous for women given that:

- It helps disseminate the gender culture allover the world,
- It fosters the development of non-governmental organizations and actions that could help defend the cause of women wherever gender inequalities work against them for whatever reason,
- It provides a world-wide exchange of gender data, information, and experiences,
- It involves transformation in employment qualifications and skills in such a way that increases women's opportunities in the labor market, and
- It calls forth the empowerment of women to mobilize all human resources to meet the challenges of competition in open international markets; this empowerment is nothing but a comprehensive development of women through education, health care, access to assets, access to employment opportunities, access to information and data techniques and sources … etc.

Women and Major Economic Trends in Globalization

Focusing on its economic aspects, globalization manifests itself in some major trends among which are the following:

1. Increasing role of international economic blocs,
2. Application of GATT agreements, and
3. Increasing role of transnational corporations.

International Economic Blocs

So far, the most important economic blocs in the world are the EU, NAFTA and the ASEAN. The main problem with such blocs is

that they are committed to serve the interests of their members in the first place. It is true that almost all agreements of such blocs express good intentions towards international development and cooperation with the non-member countries, but practically speaking their negotiating power as well as the strength of their economic position in the world markets enable them to achieve their interests at the expense of the non-member countries, especially the developing ones. This is apparent in the volume of intra-bloc trade and between the bloc and other countries, and in global investments. Arab economic integration is badly needed to strike a balance of interests in the economic relations between these blocs and the Arab countries, including Egypt. Arab women can play a constructive role in encouraging this integration by several means; for example:

- Readjusting the household consumption patterns in favor of Arab integration,
- Laying down concerted bases for enhancing social capital in the Arab nation,
- Implementing joint projects for health, education, and other social development areas,
- Undertaking joint ventures at least in the production areas that heavily depend on women as workers and as consumers, and
- Strengthening Arab women's associations to participate more vigorously in the decision making process.

GATT Agreements

GATT agreements could be seen as the economic facet of globalization. The impact of these agreements, including the establishment of World Trade Organization (WTO), on women has been oscillating between positive and negative aspects. For example, agricultural foodstuffs, which will no longer be subsidized, will become more expensive for importing countries like Egypt. This will increase the burden women are bearing in managing the household budget and securing enough and balanced nutrition to their families. Moreover, most negative impacts of economic globalization (like the destruction of many traditional opportunities of employment, the inequitable income distribution, and the high socioeconomic costs of adjustments imposed by severe international competition) fall mainly on vulnerable groups including the majority of women. However, GATT agreements could have some positive impacts on women if Egypt, or any other country, succeeded in considerably increasing its exports especially of the agro-industries and the small and medium firms in which women are the major workforce (like garments, lingerie, and hand-made products).

Furthermore, the TRIPS agreement seems to provide new opportunities for educated and highly skilled women in the field of communications. This has been evidenced in the project set up by a group of women in America, called "The Last Minute", which has achieved tremendous profits and is an example of the opportunities available to women in the field of communications. Access to such opportunities is still obstructed for the overwhelming majority of Egyptian women who lack education, training, and skills in this area.

Transnational Corporations

Transnational corporations are mostly gigantic firms enjoying huge economic power as well as a considerable influence over the decision making processes in the different countries of the world. To what extent these corporations provide job opportunities to women and men? And since they require tremendous skills and great working capacities, what are their impacts on the marginalization of socioeconomic groups and on gender disparities?

In this context, we can perceive capitalism, which has not changed its basic characteristics. It pays women a third of the wages paid to men. This happens even in the USA, which come at the top of capitalist countries; whereas Egypt has been granting equal opportunities and wages to men and women. This was considered a significant progress, but unfortunately it was not carried out within a real participatory framework, therefore this equality did not yield all the expected benefits in eliminating the gender gap in the labor market.

The Private Sector: Center of Globalization

International commerce, foreign investment and interstate migration are not new phenomena. What's new is the incredible speed and wide range of movement of capital,

which is attributed to the removal of restrictions on commerce, investment, and modern information and communications technology.

This is what led the private business sector to consider the whole world as its operating field, which means that it is on its way to become integrated into the international private sector. At the same time, the family sector and the NGO sector remain confined within the national economies, which means that their chance of achieving globalization is both weak and partial.

Information and communications technology has led to a globalization parallel to the social movements. Civil community organizations of all kinds joined in international networks to oppose the inequalities inherent in globalization.

It is necessary to identify the features of gender inequality in traditional communities. Women may experience no discrimination in the work place, but excluding women from participating in international markets - as an employee, working for herself, or as owner of a small project - leads to deepening gender inequality and does not help narrowing the gender gap. Moreover, intra-women disparities are widening between women in the developed countries and women in the developing ones, and between a minority of women and the remaining majority within the same country. In both cases, free market and private sector based globalization acts in favor of the advantaged, and at the detriment of the disadvantaged, groups among women. Relatively speaking, in both types of countries a minority of women are advantaged by richness, access to assets, access to information and communication technologies, and competitive levels of qualifications and skills.

Manifestations of globalization

Globalization is a multifaceted process that manifests itself in the various aspects of life. None of these aspects does not bear traits of women's influence either directly through different forms of participation or indirectly through cordial relations with men as husbands, sons, fathers, brothers, or even friends. However, manifestations of globalization suggest more direct and active roles for women.

Political Manifestations

Human rights, democracy, equal opportunities, social integration, tolerance and the liberty of conviction are major axioms in the political manifestations of globalization. Women, as the first tutors of new generations, have a strategic role in implanting these values and translating them into individual and collective comportment within each society and among nations. Education, access to the sources of different cultures, access to information and mass media, and active women's associations are all necessary prerequisites to enable women to play this role.

Economic manifestations

Since women are responsible for managing the family budget, they can play an important role in rationalizing the consumption patterns and behaviors to cope with the household resources and the national productive capacity. This meets the challenge globalization imposes on the developing countries, including Egypt, through two interrelated economic manifestations; namely free trade and the demonstration effect. Playing this role successfully can help avoiding complications that result from the balance of payments deficit; something of special importance to Egypt that suffers chronic deficit in its trade balance and a critical situation of the balance of payments in general.

Cultural Manifestations

It is necessary to differentiate between two concepts, the culture of globalization and cultural globalization. So far, the culture of globalization has been largely based on a majority of principles reflecting the predominance of western civilization without distinction between what is positive and what is negative in this civilization. Women all over the world should participate actively in fostering the positive aspects while fighting against the negative ones. Moreover, the culture of globalization need to be enriched by diversity and openness vis-à-vis the other cultures especially in Africa, the Middle East, and Asia.

There is also the problem of cultural globalization through the media. The absence of Arab countries from this global arena and from the dialogue among civilizations may impose certain moral values conflicting with our own values. That is why participation in the dialogue of civilizations has become a necessity.

In Egypt, women have been granted important rights. Previously, these issues were discussed through feminist movements, but actually they have become national issues. Despite this progress, a gap still exists between what we seek and what has been accomplished. Some customs, traditions, and cultural heritage are responsible for this gap and need to be reconsidered.

This could be achieved through reshaping the Egyptian personality and encouraging children and adolescents to be acquainted with different cultures through reading and participating in discussions based on their readings; which is a main objective of the "Reading for All" project sponsored by her excellency Suzan Mubarak, the First Lady of Egypt.

Modern Technology and Communication Media

Modern technology is widely accessible and rapid communications in this age represent an important dimension of globalization. With increasing deregulation, modern information and communications technology, especially the Internet, can remold the modus operendi of markets, which would benefit those who are privileged with the possession of knowledge and skills. Increasing trans-continental work opportunities have opened a number of opportunities to women in the south in terms of access to data collection, reproduction, etc. However, most women who can benefit from these privileges are well educated and belong to the high income groups, while women with little or no education usually the elderly, are marinated.

Consequently, women must have a powerful voice in dialogues concerning the policies to be drawn for improving training opportunities for women and providing social protection for those who are adversely affected.

The Internet

There is inequality and discrepancy between men and women in countries using the Internet, as men have higher opportunity to use technological equipment. Internet has helped women gain knowledge and information; especially in countries in which customs and traditions impose on them a certain form of isolation. It has also increased women's ability to gain information.

Increasing the ability to use the Internet is but a part of a more general discussion, which focuses on the obstacles impeding the human development of women as compared to men. The Internet can be transformed from a technical to a political tool to gain support and backing in various regions according to the cultural perspective of various women's groups throughout the world.

One of the advantages of information technology for women is the formation of a women's rights network, which is a non governmental network linking organizations concerned with gender issues and defenders of women's rights throughout the world.

E-Commerce

E-commerce is the purchase of, and payment for, goods and services throughout the Internet. This helps open the field for women to enter wider and faster markets while reducing the costs of transactions. Therefore, training on the use of e.commerce helps women develop and widen their relations with others who share the same interests throughout the world.

Courses like these help women recognize marketing opportunities and discover methods to combine local resources with manufactured products and thus market their products directly without intermediaries.

Moreover, since the mobility of women among different market places is usually constrained by their multiple roles in indoor and outdoor activities, e.commerce seems to be of particular importance to marketing their products. This has been evidenced by the fact that women's participation in e.commerce has reached 78 - 80% of this trade.

E.Conferences and Consultancies

E.conferences and consultancies figure among the most important outcomes of the revolution

in communications technology. Conferences and consultancies through the Internet open new era in providing many services in education, health, technical assistance, and exchange of expertise, as well as widening the scope of participation. This has been illustrated in the preparation for the Beijing Conference to ensure the participation of the largest number of women.

The rapid advance and spread of this technology means that a large number of women in developing countries are exposed to marginalization due to their inability to afford the necessary skills and money to access the Internet services. To alleviate this risk, UNIFEM, in cooperation with all networks that support women, have emphasized the gender concept and focused on the support of women and their participation in the information and communications sector.

The above mentioned remarks do not exhaust all the implications of globalization to women's status and the development of gender gaps as well as the efforts needed to bridge these gaps. Exhaustive deduction and analysis of these implications are, certainly, beyond the scope of this short notice on women and globalization; however, such an analysis merits being a subject of highly elaborated study.

Chapter Two

The Economic Well Being of Egyptians in a Globalized World

"No country can follow a course of lopsided development for such a long time –where economic growth is not matched by advances in human development, or vice versa."
(Human Development Report 1996)

Egypt's development over the last four decades of the twentieth century (1960-1999) has featured an economic struggle towards raising living standards and a social struggle towards enhancing human development and providing equal opportunity to all. Egypt today is more prosperous than forty years ago. Per capita GDP has doubled, in real terms, between 1965 and the end of the1990s. Egypt's GDP more than quadrupled during this period. But these trends mask great unevenness. Deprivation and inequality leave large disparities between regions within the country and between groups of people in society.

The early part of this period (1960-1973) was dominated by a socialist ideology, reflected in public sector dominance in all economic activities; an import-substituting production and growth strategy; a social commitment to provide employment to the educated labor force, and free social services (particularly education and health) to all; as well as open ended food subsidies and a heavily centralized public administration. A significant expansion of education and health services, and guaranteed jobs in the public sector, were achieved.

By the mid-seventies, these costly policies had been revised under the Open Door Policy. Increased participation of the private sector in investment and in various economic activities was encouraged, opening up to foreign direct investment achieved, and a rationalization of government intervention in production activities observed. Nevertheless, the inherited social commitment of the government of Egypt (GOE) to provide social services and subsidies was maintained. Over the decade (1974-1985), although the GOE encouraged private initiatives and attempted to withdraw from various activities previously monopolized by the public sector, it continued to *provide widespread subsidies to both consumers and producers.* Furthermore, *the social safety net was enlarged* to cover segments of the population that had not been covered under the national insurance schemes. This generous social spending was sustained by an unprecedented flow of external resources from increased petroleum exports and prices, remittances from Egyptians working in the Gulf countries, flourishing tourism receipts and Suez Canal tolls.

However, economic difficulties on the external front exposed the fragility of the domestic economy and revealed that these policies were unsustainable. The vast public spending on subsidies was untenable. Overstaffing in government administration and the public sector was responsible for depressing real wages and productivity. The observed growth of the preceding period slowed down. Mounting external indebtedness put increasing pressure on the external balance. This period (1986-1990) was characterized by repeated and fragmented attempts to restore both the external and internal balances, and to redress the economic situation, but with no significant success.

By mid-1991 the GOE had adopted a comprehensive stabilization and structural adjustment program, which gained the support of the IMF and the World Bank. Fiscal, monetary and foreign exchange policies were revised and rationalized, and macroeconomic balances restored. These measures included the control of inflation, restoration of fiscal balance and of the current account balance, the stabilization of the exchange rate after a marked devaluation

Overstaffing in government administration and the public sector was responsible for depressing real wages and productivity.

in 1991 and the liberalization of the trade regime. The former import-substituting strategy has been discarded in favor of an export promotion drive. Opening up to foreign trade is increasingly being attempted. Successive reductions in tariff rates and the elimination of non-tariff barriers to trade have been implemented. Generous fiscal incentives for private domestic and foreign investments have been created.

In spite of this successful overall stabilization, little has been achieved in the area of structural adjustment, such as bureaucratic and institutional reform, legislative simplification and modernization, consistent productivity growth and privatization. However, the infrastructure has been mostly expanded and upgraded, population growth has slowed down since the beginning of the nineties and attempts made to reduce overcrowding in the old valley and in major urban centers. Large investment projects in regional development are being implemented and industrial pollution combated. Nevertheless, the continuous concern of the GOE to maintain fiscal balance, and at the same time to ensure provision of social services to an ever-increasing population, in particular universal enrollment in basic education and increased access to health services, has resulted in a marked deterioration in the quality of such services.

Opening up to global trade is not simply a matter of reducing tariff rates and removing barriers to commodity flows.

Determinants of Overall Income

Globalization, as mentioned in the previous chapter, involves openness to trade flows, labor movements and capital flows. Egypt, since the mid-seventies, has strived to open up its economy to such flows. Labor migration, particularly to neighboring Gulf countries, generated massive remittances, which have been pivotal in raising the material welfare of Egyptians. The impact of such remittances is implicit in the indicator used for the level of overall income, namely real gross national product. But a question is raised on the effect of the other two globalization-related factors, trade openness and foreign investment. These are said to be good for growth, but there is a need to test this assumption for the Egyptian economy.

The objective then is to examine the impact of the different explanatory variables on economic growth. These explanatory variables are government consumption expenditure, gross fixed capital formation, trade openness measured as the ratio of exports plus imports to GNP, foreign investment, and the consumer price index, as a proxy for inflation.

It appears that overall: government consumption expenditures had a negative impact on gross national product, with the exception of the sub-period 1986-1990; gross fixed capital formation did not show a significant impact on the level of gross national product; trade openness has not shown any significant impact over the whole period, with the exception of the sub-period 1986-1990; foreign investments have contributed to enhancing GNP; and the expectation of higher prices has stimulated real national product. This supports the conclusion that openness, and more generally, global integration, did not respond to Egypt's developmental needs and had no significant impact on the determination of the level of gross national income.

In fact, opening up to global trade is not simply a matter of reducing tariff rates and removing barriers to commodity flows. It requires deep institutional reform, which requires financial and bureaucratic resources as well as managerial capabilities and political will. While these reforms may be consistent with development needs, they are not directly targeted at such needs as reflected in higher GNP, improved industrial and technological capability and poverty alleviation. There may even be competition over scarce available resources, thus confronting decision makers with a problematic trade-off. Looking at Egypt's data, opening to international trade has not necessarily been growth enhancing in itself. It should rather be part of a broader development strategy targeting growth and poverty alleviation. However, the impact of external capital flows has persistently been positive.

Impact of Economic Growth and Openness on Income of the Poor

The relationship between income of the

Box (2.1)

Savings and Investment

Rapid growth requires high domestic savings and investment rates. Egypt is known to suffer from a very low savings/income ratio. Savings to GDP averaged 17.9 per cent per annum in the 1980s and declined to 15.1 per cent during the 1990s. These saving levels are significantly lower than those of the rapidly growing countries of East Asia, which exceed 30 per cent. Similarly, the annual average of Egypt's investments to GDP declined from about 30 per cent for 1981-90 to approximately 20 per cent for 1991-2000. This decline in investments was partly caused by the effort towards redressing the macroeconomic imbalances during the reform period. It is now necessary to raise these ratios and ensure the efficient allocation of investments as an important requirement to stimulate competitiveness of the economy and to enhance the ability to capture the opportunities offered by globalization.

poor and the level of overall income in Egypt has been investigated. The dependent variable, namely income of the poor, is proxied by the percentage ratio of income of the poorest quintile (poorest 20 per cent) to total income. The explanatory variables were gross national product, trade openness, foreign investment, government consumption expenditure, gross fixed capital formation and the consumer price index.

This relation suggests that a 1 per cent increase in gross national product raises the percentage of income of the poorest 20 per cent of the population to total income by around 0.14 per cent, which supports the hypothesis that income growth over the last third of the twentieth century has tended to increase the share of the poor in national income. However, the sub-period 1986-1990 points to a tendency towards a downward shift in the share of total national income going to the poor during these years.

An alternative model used was to directly regress the share of income of the poorest quintile on various explanatory variables, including real gross national product, trade openness, foreign investment, government consumption expenditure, gross fixed capital formation and the consumer price index as a proxy for expected inflation.

It is worth noting that the level of gross national product has been positively associated with an increased share of the poorest percentile in GNP. The period 1974-1985 has been particularly favorable to the poor, which have also been sheltered from inflation by the subsidization programs of the GOE.

Gross fixed capital formation and government consumption expenditures have tended to depress the share of income accruing to the poorest quintile over almost all sub-periods under consideration. Trade openness has tended to depress this share during the last sub-period 1991-1997, while foreign investment has had a positively significant impact during the period 1986-1990.

Thus, the evidence revealed by the Egyptian experience is that the share of income going to the poor has tended to rise with gross national product. However, integration in the global economy, as reflected in trade openness, has shown negative impact on the poor, unlike foreign investments, which have tended, in some episodes of Egypt's recent development, to positively affect the poor's share of income. We may, thus, conclude that increased GNP has been helpful in alleviating poverty, in the sense of enhancing the share of income of the poor. But this does not ensure improvement of the social conditions of the deprived, such as education, health care, access to credit, legal protection and other means of empowerment. Improving such conditions involves a political process by which the required arrangements are prioritized. Enhanced income does not necessarily ensure improvement of human development and adequate provision of social services to the deprived.

Evidence revealed by the Egyptian experience is that the share of income going to the poor has tended to rise with gross national product.

Human development has been defined as enlarging people's choices in a way that enables them to lead longer, healthier and fuller lives.

Trade Openness and Equality of Income

In order to analyze the impact of openness to international trade and to foreign investment on inequality of income distribution, other variables, such as GNP, inflation, government consumption expenditure and gross capital formation are taken into account.

Income inequality has been measured by the Gini index. Five points in time were available from Family Budget Surveys. They were successively 27.7 per cent in 1964/65, and 31.2 per cent in 1974/75, indicating deterioration in the pattern of income distribution. The index declined to 29.6 per cent in 1981/82, pointing to a reduction in income inequality. It then rose again to 35.1 per cent in 1990/91, attesting to an increase in inequality followed by a decline to 29.9 per cent in 1995/96, indicating an improvement in the pattern of income distribution. It appears that trade openness has had a positive effect on the Gini index, indicating a negative impact on income distribution. Foreign direct investment and the past level of GNP however both showed a beneficial impact on the pattern of income distribution (a negative effect on the Gini index).

Surprisingly, the consumer price index, as a proxy for inflation, has also shown a negative association with the Gini index, pointing to a beneficial effect on the pattern of income distribution. This may be explained by the continuous consumer subsidization policy that the GOE adopted throughout the period until the beginning of the nineties. This has sheltered consumers from the distributional effects of inflation.

In addition, gross capital formation has shown a negative impact on income distribution, showing that investment policy has not been explicitly aimed at achieving equity. On the contrary, it has shown a negative effect on the pattern of income distribution. Finally, it appears that the consumer subsidization policy during the sub-period 1974-1985 has been particularly favorable to the poor, and has improved equity in distribution

Combining Growth and Redistribution Effects on Income of the Poor

It is worth noting that the scarcity of data on income distribution limits what can confidently be said about the ultra poor in the country, for example the bottom 10 or 5 per cent of income distribution. Changes in the distribution of income within the lowest quintile have probably occurred over time, but what the available data allows us to identify is average income in the lower income bracket, regardless of redistribution within this bracket. The analysis is thus restricted to the impact of redistribution on the share of income of the bottom 20 per cent of the population, disregarding redistribution of income within this bracket.

As expected, the results rightly indicate that any improvement in the pattern of distribution (associated with a decline in the value of the Gini coefficient) leads to a higher share of income accruing to the poorest quintile in the population. Conversely, a deterioration of the pattern of distribution (higher Gini) is reflected in a decline of the share of the poorest quintile in income. It also appears that the magnitude of this response varies between sub-periods. The results also show that higher GNP has had a positive impact on the poor during the first (1965-73) and last (1991-97) sub-periods, thus dampening the redistribution effect. However, increased levels of GNP during the periods 1974-85 and 1986-90 have not favored the poorer sections of the population and have thus reinforced the negative impact of income redistribution.

Income Growth and Human Development

Human development has been defined as enlarging people's choices in a way that enables them to lead longer, healthier and fuller lives. This definition of HD is very broad. It involves not only economic elements but also social, political, cultural,

Box (2.2)

Does Economic Growth Stimulate Human Development?

It is clear from the literature, that we can expect important causal connections to exist between economic growth (EG) and human development (HD) achievements, but that these connections are not automatic. The strength of the links by which EG is translated to HD varies according to a wide range of factors.

GDP per capita growth contributes to HD mainly through household and government activities and policies. The effect of a family's income on human development depends not just on the size of the income but also on how the family chooses to spend it. Households' propensity to spend their disposable income on items which contribute most directly to the promotion of HD in poor countries, such as food, potable water, education and health, varies, depending on such factors as the level and distribution of income across households, as well as on who controls the allocation of expenditure within households. El-Laithy et al. (1999) point to the positive effects of higher family income on school enrollment. Higher incomes also help improve health. Several studies show that an increase in household income is associated with improvements in such health indicators as height-for-age ratios and survival rates. These indicators also correlate strongly with the mother's education level. Moreover, other studies suggest that income is more likely to be spent on human development when women control the cash. Therefore, female literacy and participation in the labor force play a crucial role in strengthening the link between EG and HD.

Expenditure on HD-related items is strongly affected by the rate of poverty reduction. Not surprisingly, if poor households receive extra income, they significantly increase their food expenditure and caloric intake. When women control cash income it appears that expenditure patterns are geared relatively more towards HD inputs, such as food and education. Additionally, the way in which growth translates into income distribution and poverty reduction depends on the nature of the growth process itself, particularly on the extent to which it is based on the generation of employment and on increasing rural incomes.

Government policies can encourage patterns of growth that create jobs, increase real wages and raise market demand for human capital, and thus demand for health care and education that enhance this capital. The allocation of resources to improve HD is a function of total public expenditures, of how much of this flows to the HD sectors, and of the way in which it is allocated within these sectors.

In summary, it is legitimate to hypothesize from this review of the links between economic growth and human development, that the connection between EG and HD is likely to be stronger:

- The lower the proportion of the population below the poverty line; for a given level of GDP per capita, that is, the more equitably income is distributed;
- The more income households allocate to HD at a given income level; this will be evaluated by the level of female education and by female participation in the labor force.

and most importantly, security dimensions. Therefore, when measuring and monitoring human development, it is desirable to include many variables, to obtain as comprehensive a picture as possible of this phenomenon. The UNDP human development index (HDI) has focused only on three essential elements of human welfare: life longevity, knowledge and decent living standards. Because of the scarcity of data on many indicators, HDI uses only one indicator for each element, namely life expectancy at birth, educational attainment and GDP per capita. Many indicators and elements of human well-being are omitted simply because there are too few countries with comparable reliable data.

However, an assessment of progress in HD and its relationship to economic growth, using HDI only, can be misleading. HDI cannot reflect the short-term impact of policies, since it is based on some indicators that are slow to change, such as adult literacy and life expectancy. Although the combined measure of school

An assessment of progress in HD and its relationship to economic growth, using HDI only, can be misleading.

Box (2.3)

Does Human Development Impact Economic Growth?

The many ways in which human development contributes to economic growth have often been emphasized. In recent years an increasing number of studies have documented the strength and diversity of the links between the two.

The strength of the links between human development and economic growth depends, firstly, on the accumulation of human capital through investments in health and nutrition, education and skills training, and R&D. Secondly, it depends on accessible opportunities for people to contribute to economic development through social, political, and economic participation.

Evidence suggests that as people become healthier, better nourished, and more educated, they contribute effectively to economic growth. A higher levels of HD, in addition to being an end in itself, affects the economy by enhancing people's capabilities and consequently their creativity and productivity. Clearly, the health and education of a population are among the main determinants of the composition and growth of output.

Numerous studies indicate that increases in earnings are associated with additional years of education. Education is also an important contributor to technological capability and technical change in industry. The higher the level of education attained by the workforce, the higher overall productivity is, because the more educated are more likely to innovate, and thus affect everyone's productivity. Furthermore, education may affect per capita income growth through reducing population growth. Income distribution also appears to be important to this link. Recent empirical evidence suggests that the distribution of assets and income has an effect on economic growth, with a more equitable distribution favoring higher rates of growth. One explanation is that a more equitable distribution of assets and income implies better nutrition and a stronger demand for education and hence higher labor productivity.

The strength of these various links varies considerably and there is no automatic connection between an improved level of HD and increases in per capita GDP. Creating a larger pool of educated people is not sufficient to stimulate growth; there must also be opportunities for them to be productively employed. Besides, human development alone cannot transform an economy. Even skilled and vigorous people need machinery, buildings and infrastructure to complement their efforts to enhance growth.

In summary, the connection between HD and EG, is likely to be stronger the more equitable the distribution of income, the more educated women are, and the lower the unemployment rate.

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enrollments and average income is more responsive to annual changes, when aggregated to the national level, it still fails to give credit to policies that raise enrollment among marginalized communities, or that tackle income poverty among the most deprived. Thus, before examining the interaction between economic growth and HD, three questions should be answered. First, should we use a broader HD concept to include more social and economic indicators than those used in HDI? Second, what are the HD dimensions that are most relevant to economic growth? And, finally, how can these dimensions be measured and combined into one single measure?

Variations in the currently used HDI mainly reflect long term indicators that are slow to change. It is thus useful to introduce more dimensions and indicators into the analysis to account for short and medium term changes. Accordingly, a broader human development index (BHDI) has been constructed for Egypt, using disaggregated data at the governorate level (See Annex 2.1).

Interaction Between Economic Growth and Human Development

The relationship between HD and EG across Egypt's governorates over two successive periods, 1986 - 1990 and 1990-1996, is shown in Table (2.1). Human

development in each period is expressed as the percentage change in shortfall of BHDI, by governorate, with respect to its maximum value of 100; while economic growth is reflected by the annual per capita GDP growth over each period. It appears from the table that HD and EG do not necessarily move in the same direction over time or across governorates. To take a few examples, with over 4 per cent annual growth in real GDP per capita in 1986-90, Port-Said achieved nearly a three to four times reduction in the shortfall of BHDI compared to Damietta, Gharbia and Ismailia, while Dakahlia achieved about half of this reduction (24.2 per cent compared to 45.8 per cent in Port-Said) with 5.4 per cent GDP growth. At the national level, a reduction in shortfall of BHDI by 17.4 per cent has been achieved with a per capita GDP annual growth rate of 3.6 per cent over the period 1986-1990, while a similar reduction (17.8 per cent) has been achieved with a decline in GDP per capita growth of 1.5 per cent over the period 1990-1996.

Is There a Causal Relationship Between HD and EG?

The causal link between HD and EG has been quantitatively examined on its two-way direction, i.e. from EG to HD and from HD to EG, using disaggregated data at the governorate level and over two periods of analysis, 1986-1991 and 1991-1996.

The Link from EG to HD

For this link, the dependent variable chosen as a proxy for achievement in human development was the shortfall reduction in BHDI.
The selected explanatory variables were:

- GDP per capita growth rate as a measure of overall EG
- Social expenditure, defined as average public expenditure on education and health for the period 1993-1996

HD and EG do not necessarily move in the same direction over time.

Table (2-1)
Relation Between HD and EG Across Governorates 1986-1990 and 1990-1996

	1986 - 1990		1990 - 1996	
	BHDI reduction in shortfall	**Annual GDP per capita growth**	**BHDI reduction in shortfall**	**Annual GDP per capita growth**
Urban Governorates	23.66	2.20	50.29	3.4
Cairo	16.63	2.67	23.95	0.8
Alexandria	45.77	4.37	96.65	1.7
Port Said	15.45	3.94	73.23	12.4
Suez				
Lower Egypt	13.86	4.09	18.83	-8.9
Damietta	24.17	5.43	16.47	-9.6
Dakahlia	12.07	3.60	22.29	-2.8
Sharkia	11.54	1.81	19.45	-0.1
Qaliubia	14.24	6.24	15.31	-8.9
Kafr-El-Sheikh	11.87	4.24	26.41	-1.51
Gharbia	9.95	0.43	19.72	-2.3
Menufia	1.72	1.62	15.10	-0.2
Behera	14.75	4.18	23.59	1.3
Ismailia				
Upper Egypt	12.91	1.18	30.97	4.1
Giza	7.01	1.44	12.72	-1.9
Beni-Suef	6.73	-1.97	8.41	-1.8
Fayoum	2.84	2.70	13.34	-1.7
Menia	1.37	3.34	2.69	-2.8
Assiut	4.57	3.02	7.34	-4.2
Sohag	5.19	4.06	8.04	-1.2
Qena	19.56	2.99	13.63	3.0
Aswan	20.13	1.92	21.20	4.3
Border Governorates	**17.35**	**3.61**	**17.80**	**-1.49**
National Average				

Female indicators are likely to be associated with improvements in nutrition, health and education indicators and hence increase productivity.

- Several measures of income distribution, i.e. Gini coefficient and income share of the bottom 40 per cent

- Change in the female unemployment rate. A decline of this indicator is likely to be associated with greater female control over household spending, thus tending to improve HD

- Change in the overall unemployment rate

Examining the relationship between economic growth and human development shows that the impact of GDP per capita growth proved to be significant, with higher growth of per capita income leading to better HD performance. According to the model, one percentage point increase in the average growth rate of GDP per capita is estimated to reduce BHDI shortfall by around four percentage points over the period. Social expenditure on education also proved significantly positive. For every percentage point increase in average social spending on health and education, BHDI shortfall decreases by 0.13 percentage points. An interesting finding is that the unemployment rate for males does not seem to affect human development, while one percentage increase in female unemployment rate increases BHDI shortfall by 0.41 per cent. As expected, income maldistribution proved to affect HD negatively. This means that a more equitable distribution seems to promote human development. One percentage decrease in the Gini coefficient reduces BHDI shortfall by 4.9 per cent.

The Link from HD to EG

For the link from HD to EG, the dependent variable chosen was GDP per capita growth rate. The explanatory variables selected were:

- GDP per capita.

- HDI shortfall reduction using BHDI.

- Income distribution, using two alternative measures: the income share of the bottom 40 percent of the population, and the Gini coefficient.

- Female enrollment rate and female unemployment rate. Female indicators are likely to be associated with improvements in nutrition, health and education indicators and hence increase productivity.

- Unemployment rate.

The results show that if the change in BHDI shortfall reduction were increased by one percent, GDP would increase by 0.81 per cent. Female enrollment rate and female unemployment rate are also significant. The income distribution changes run counter to expectations, that is, equity in income distribution has no effect on economic growth.

In summary, the two relations, taken as a whole, showed a significantly positive effect of economic growth on HD and a significantly positive effect of HD on economic growth. With respect to specific links in each of the relations, findings broadly confirmed the tested hypotheses, except for income distribution in the second link. For the first link, improvement in HD was larger with higher social expenditure, higher increase in GDP per capita, higher public spending on health and education and less change in the female unemployment rate and in the Gini coefficient. On the other hand, the relationship between HD and economic growth was stronger with higher female enrollment rate, higher improvement in HD levels and lower female unemployment rate. Equity in income distribution was not significant in enhancing economic growth.

The Quality of Life

The main indicators of Quality of Life (QOL) in Egypt in the 1980s compared to the 1990s are shown in Table (2.2).

It appears that there is some improvement in the quality of life as reflected in the decrease in the under-5 mortality rate from 175 per thousand in 1980 to only 59 in 1998. This trend is also observed in life expectancy at birth, which is estimated at 68 years for females and 65 for males in 1998 against 63.3 and 62.1 respectively in 1989. There is still a wide scope for QOL improvement through decreasing the level

Table (2-2)
Egypt Quality of Life

Index	1980	1998
Under-5 mortality rate (per 1000)	175	59
Urban population (% of total)	44	45
Life expectancy at birth F		68
M		65
Carbon dioxide emission (metric tons per capita)	1.4	1.7
Access to sanitation in urban Areas (% of urban pop. 1995-95)	20	

of carbon dioxide emission and increasing the percentage of urban population with access to sanitation.

This sketchy evidence shows that the general indicators of human development and QOL, although slightly improving, did not significantly change in the 1990s compared to the 1980s. This reflects the fact that while Egypt did not capture the opportunities for growth, it did not suffer from the volatilities and insecurities experienced in other countries. It seems that for Egypt to benefit from globalization it should achieve rapid sustainable growth with equity.

Typology of HD in the Governorates of Egypt

It is clear from the above analysis that high levels of human development promote economic growth, which in turn can promote human development. Conversely, weak human development is likely to result in low growth, further undermining the prospect of future human development

This means that an economy may be on a mutually reinforcing upward, or downward, spiral resulting from the links between HD and economic growth. The strength of these links influences the extent of mutual reinforcement between HD and EG. Community performance can therefore be usefully classified into four categories: virtuous; vicious; and two types of lopsidedness, strong HD/weak growth (called HD-lopsided); and weak HD/ strong EG (called EG-lopsided). In the virtuous cycle case, good HD enhances growth, which in turn promotes HD, and so on. In the vicious cycle case, poor performance on HD tends to lead to poor growth performance which in turn depresses HD achievements, and so on. The stronger the linkages in the two relations described above the more pronounced is the interdependence between economic growth and HD, either in a mutually reinforcing or in a dampening direction. Where linkages are weak, cases of lopsided development may occur. On the one hand, high economic growth may not bring about good HD, if, for example, there are such weak linkages as a low social expenditure ratio; on the other hand, good HD performance may not generate good EG if increases in education level are not translated into increases in productivity and opportunities for employment. Such cases of lopsided development are unlikely to persist. Either

An economy may be on a mutually reinforcing upward, or downward, spiral resulting from the links between HD and economic growth.

Box (2.4)

Health and Education

It is generally recognized that increased spending on education and health contributes towards higher GDP growth rates. Government average annual spending on education as a percentage of GDP rose from 3.8 per cent for 1987-90 to 4.34 per cent for 91/92-93/94 and 5.37 per cent for 1994-1997. Similarly, government average spending on health for the same periods was successively 1.54 per cent, 1.69 per cent and 1.64 per cent. The rise in spending on health and education was unfortunately associated with a lower GDP rate of growth. The explanation might reside in the government's concern for the number of beneficiaries rather than the quality of these social services. Greater attention should be given in these sectors to the allocation of investment to productive endeavors focusing directly on improving services rather than to buildings, which do not benefit these services in the short-term.

Figure 2.1 : Distribution of Governorates According to Shortfall of BHDI and Growth (1986-1990)

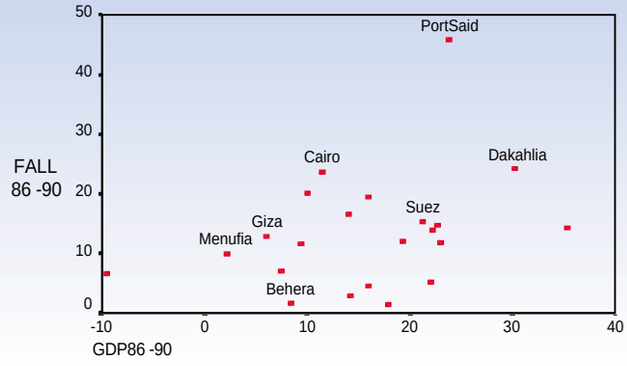


Figure 2.2 : Distribution of Governorates According to Shortfall of BHDI and Growth (1990-1995)

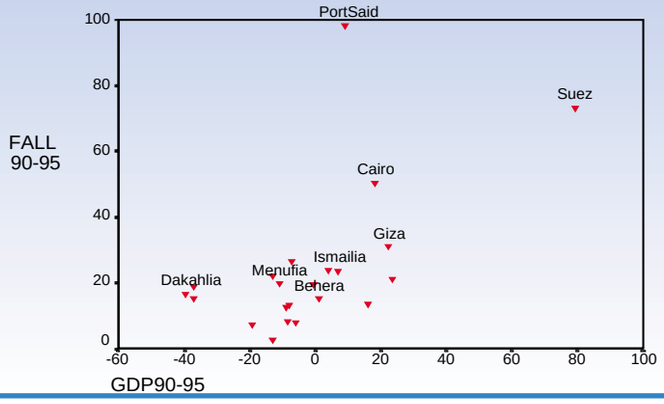
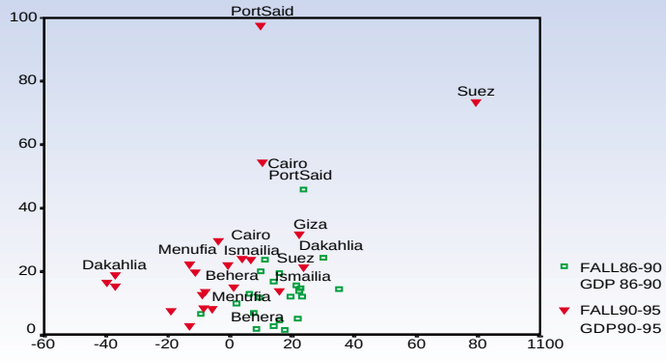


Figure 2.3 : Changes in the Relative Position of Various Governorates (1986-1990 and 1990-1995)



the weak partner in the cycle eventually acts as a brake on the other partner, leading to a vicious cycle case, or, if the linkages are strengthened, possibly by policy change, a virtuous cycle case results.

Estimations show strong and weak links between changes in economic growth and improvements in HD across governorates and the movement of governorates from one category to another through the periods 1986-1990 and 1990-1996. One way of classifying governorates into the four categories is to compare their performance on HD and EG with the average performance of all Egypt. Figures (2.1) and (2.2) present this classification successively for 1986-1990 and for 1990-1996 for all governorates in Egypt. The vertical and horizontal axes represent the average performance for the period. In 1990-1996, for example, most governorates in Upper Egypt appear as experiencing a vicious circle (SW quadrant), except Giza, Qena and Aswan. A strong regional pattern emerges, with Urban Governorates and the Borders featuring in the virtuous cycle category. Four of the Lower Egypt governorates (Damietta, Sharkia, Gharbia and Menufia) are represented in the HD-lopsided quadrant. In the EG-lopsided category there is one governorate in Lower Egypt (Behera) and two in Upper Egypt (Qena and Aswan). The remaining seven governorates are trapped in a vicious circle of low economic growth and lagging human development. Five of the eight governorates in Upper Egypt fall into this disadvantaged category.

Taking the movements of governorates over the two periods, 1986-1990 and 1990-1996 (see Table (2-3) and Figure (2.3)). It appears that out of the governorates in the vicious cycle category in 1986-1990, five remained in that category throughout the period 1990-95. All of them are in Upper Egypt, which started with very low levels of HD, handicapping their growth potential. Their low growth rates prevented them from generating the resources necessary for improvements in HD. One governorate (Behera) moved from vicious cycle to EG-lopsided. Two governorates (Sharkia and Menufia) moved from vicious to HD-lopsided. Three governorates (Alexandria, Qaliubia and Giza) moved from vicious to virtuous. Two governorates (Cairo and Border) moved from HD-lopsided into the virtuous category. It should be noted that the 1996 Human Development Report argued that: “Lopsided development can

Table (2-3)
Changes in Classification of Governorates
(1986-1990 and 1990-1996)

	1986-1990	1990-1996		1986-1990	1990-1996
Urban Governorates			**Upper Egypt**		
Cairo	HD	VR	Giza	VC	VR
Alexandria	VC	VR	Beni-Suef	VC	VC
Port Said	VR	VR	Fayoum	VC	VC
Suez	EG	VR	Menia	VC	VC
Lower Egypt			Assiut	VC	VC
Damietta	EG	HD	Sohag	VC	VC
Dakahlia	VR	VC	Qena	EG	EG
Sharkia	VC	HD	Aswan	HD	EG
Qaliubia	VC	VR	**Border Governorates**	HD	VR
Kafr-El-Sheikh	EG	VC			
Gharbia	EG	HD			
Menufia	VC	HD			
Behera	VC	EG			
Ismailia	EG	VR			

VR = virtuous; VC = vicious; HD= HD- lopsided, EG = EG- lopsided

Empirical evidence from Egypt has shown that, in general, the share of income accruing to the poor has tended to rise with gross national income.

last for a decade or so, but it then shifts to rapid rises in both incomes and human development, or falls into slow improvements in both human development and incomes."

Tackling the Challenge

Empirical evidence from Egypt has shown that, in general, the share of income accruing to the poor has tended to rise with gross national income. Furthermore, it has tended to rise with improvements in the pattern of income distribution as reflected in declining Gini coefficients. The impact of globalization-related variables appears to be mixed. Trade openness has not shown any significant impact on the level of GNP although it affected negatively income distribution and increased income inequality. Foreign investment has positively contributed to enhancing the level of national income and improving the pattern of distribution. These mixed results may be attributed to the fact that global integration is not just a matter of opening up the economy to trade flows and to financial flows. It requires further deep institutional, managerial and political reforms, which have not taken place. Revision of priorities is also warranted. Higher income per capita is just one dimension of human welfare. Other major elements of human development include the social, political and security dimensions

Investigation of the interaction between economic growth and human development firstly required the construction of a broad human development index (BHDI), which reflects various dimensions of human development. More specifically, it embodies sixteen indicators, which represent health, education, housing conditions, employment, income inequality, gender gap and per capita GDP. Then various links between economic and human development were identified and analyzed.

Applying these relations, at the governorate level in Egypt, revealed that over the past sub-periods 1986-90 and 1990-96, important changes in the relations between economic growth and human development have occurred. The four urban governorates which showed mixed interrelations between economic growth and human development indicators, during the first sub- period, all moved in the nineties to balanced linkages with economic growth and human development moving together in a mutually reinforcing way. The nine governorates in Lower Egypt showed mixed performances. They ended up in the nineties with two reaching balanced favorable linkages (Qaliubia and

Ismailia), four showing a bias towards advances on the human development front and lagging economic development (Damietta, Sharkia, Gharbia and Menufia), one showing a bias towards advances in economic growth unmatched by human development (Behera) and finally two, trapped in a vicious circle of low economic growth and low human development (Dakahlia and Kafr - El-Sheikh). The eight governorates of Upper Egypt remained mostly trapped in a vicious circle of low improvements in both human development and incomes (five governorates: Beni Suef, Fayoum, Menia, Assiut and Sohag), with one moving forward on both economic growth and human development fronts (Giza) and two enjoying high economic growth but backward human development indicators (Qena and Aswan, due to the flow of tourism revenues to these governorates).

These results confirm that overall income growth conceals wide variations in the distribution of its benefits in terms of economic returns and of human development advances among regions as well as among social groups. The regional pattern of distribution has been investigated. Further research on the pattern of distribution of economic and human development benefits among social groups and/or income brackets is warranted. In an environment of globalization of markets and withdrawal of governments from profitable economic endeavors and activities, mitigating the distributive impacts of the expected benefits is essential.

Box (2.5)

Policies for Short-Term Recovery

Currently, the Egyptian economy is suffering from recessionary pressures. This is reflected in higher rates of unemployment, lack of liquidity and less optimism. These conditions have negative effects on human development and the quality of life. The economy has also been negatively affected by a sharp devaluation in the last few months (about 18 per cent), which fostered expectation of instability in the exchange rate regime. It is necessary to solve these problems before embarking on a long-term program that aims at achieving rapid growth with equity and improved quality of life to enhance conditions of human development under globalization. The suggested immediate measures include:

- **Confidence and Optimism**

It is recognized that the psychological attitude of people is one of the causes of economic cycles. There is a general feeling of loss of confidence and lack of optimism about the short-term prospects of the economy. Reinstituting confidence in the future and regaining optimism is a necessary prerequisite for a turnaround.

- **Appropriate Short-term Policies**

Economic policy could introduce several measures to deal with recession. Instruments of monetary and fiscal policies could be actively used to overcome the recession. The payment of arrears accumulated by government agencies to the business sector could have a positive multiplier effect on the economy. A reduction across the board of tax rates might also lead to increased public revenues through reduced incentive for tax evasion, which is believed to be high. Egypt ranked among the top eight out of eighty nine countries with the highest marginal corporate tax rate in 1999.

- **Exchange Rate Regime**

Under ERSAP, the exchange rate regime was liberalized. Thanks to the surplus in BOP during 1991/92-1996/97, the exchange rate of the pound vis-à-vis the US dollar remained almost constant. However, starting in 1997/98, the Egyptian BOP has been suffering from a deficit. In an attempt to maintain the stability of the exchange rate the Central Bank of Egypt (CBE) drew on its international reserves which declined by almost 30 per cent (from about US$21bn to about US$14bn) without great success in stabilizing the value of the Egyptian pound. Policies and measures aiming at fixing the exchange rate at a level which does not correctly reflect supply and demand conditions lead to distortions, and more seriously, to excess capacities, lower rates of growth and higher rates of

unemployment. Furthermore, these policies conflict with the main thrust of liberalization. The recommended action is to follow a more dynamic free exchange policy with more efficient open-market operations by the CBE.

● **Financial Sector Reform**

The financial sector plays an important role in achieving growth and stability of the economy. It can also be a source of shocks and instability, as shown in the East Asian crisis of the late 1990s. The main source of vulnerability is the asymmetry of information that might cause adverse selection and moral hazard problems [meaning?]. The Egyptian banking system is presently suffering as a result of the rapid expansion of credit to the private sector in the nineties. Its effective participation in growth is hampered by the rise of the value of non-performing loans and the low quality of its loan portfolios. The Central Bank of Egypt has taken several measures to ensure the proper liberalization of the banking system and to enforce appropriate and prudent controls. Close monitoring and follow-up of this sector will help avoid financial volatility and economic insecurity. This would enable the banking system to resume its developmental role.

Prerequisites for Long-Run Growth with Equity

The required long run policies for Egypt to achieve sustainable rapid growth with equity and better quality of life could include the following:

Demographic Policy

The demographic situation in Egypt has three main characteristics that negatively affect its growth and human development prospects. These are the size of the population, its rate of growth, and its age structure. The current population of 65 million exceeds the support capacity of the currently utilized area and resources of the country. This results in a very high population density in the inhabited land (about 1300 person/km2 compared to 46 for the world). In 1999, this density ranked third in the world after Hong Kong (6946) and Singapore (5283). The resulting congestion and increased pollution negatively affect the quality of life. All this points to the need for intensified efforts towards further reducing the rate of population growth.

Implementing Structural Reform

Egypt embarked on an active ERSAP in May 1991. It succeeded, between 1991 and 1994, in implementing the needed monetary and fiscal reforms. This resulted in a reduction in the rate of inflation, a safe level of external indebtedness, stability of the exchange rate and accumulation of sizable international reserves. Structural reforms, however, were very slow. Since 1995, the favorable results of the stabilization have been eroded. Therefore, it is necessary to urgently implement the required structural reforms in order to raise the rate of GDP growth, increase exports, stimulate employment and reduce the degree of vulnerability of the economy. For Egypt to become a 'Tiger on the Nile', it needs to grow at a rate of about 10 per cent for a continuous period of two decades. The principal factors which might lead to this are:

(a) Bureaucratic reform. Government bureaucracy hinders production and adds to the high cost of doing business. Government employees, who exceed 5 million, receive the largest proportion of government expenditure, thus diverting limited government resources away from social spending, especially education, health and housing for low income people. Under globalization, administrative reform is required to turn this bureaucracy into a driving force for increased production instead of being an obstacle to growth.

(b) Fiscal reform. Business in Egypt is subject to a high rate of taxation and to multiple levies. This reduces competitiveness. Furthermore, tax administration is inefficient and confidence is missing between taxpayers and tax administration. All this requires substantial reforms of both the tax system and tax administration.

(c) Customs reform. Similarly, customs duties are fairly high even after the successive reductions introduced in the last few years. Customs administration lacks efficiency, which, in turn, negatively affects customs revenues. There is wide scope to reduce tariffs on inputs and capital goods. Further,

consumer welfare requires the reduction of customs tariffs imposed on many commodities. This reduced protection would force local producers to increase their efficiency, which would be an added benefit to the economy. Raising the efficiency of customs administration is also required for realizing higher revenues at a lower cost, both in terms of time and money, for the business sector.

(d) Labor laws and relations. Rapid growth requires new labor laws that would strike a balance between the interests of both the labor force and the business community. The present laws are biased towards workers. They raise the cost of labor and promote inefficiency, which reduces the competitiveness of Egyptian products. The government is committed to presenting law reform to parliament, but has not done so yet. The promulgation of this law should be expedited.

(e) Privatization. Privatization is one of the components of ERSAP. Its implementation has been very slow. This has negative implications for efficiency, growth and the development of the capital market. It also impedes the growth of foreign direct investment (FDI) flows. It is believed that the already privatized firms have shown higher efficiency. Consequently a faster pace of privatization is expected to contribute to more rapid growth.

Legislative Reform

Since development in Egypt relies mainly on the private sector, the current legal framework has to be amended. It should be simple and clear, and should ensure the appropriate environment for rapid growth. The judicial system should be prompt in restoring rights and settling disputes. At present, there is wide scope for reform in this area.

Appropriate Macroeconomic Policies

Macroeconomic policies should be market friendly, flexible and suitable for dealing with the prevailing economic and social conditions. Fiscal and monetary policies should be coordinated with trade liberalization. Imbalances should be removed and the remaining distortions redressed.

Education Reform

A good education system is one of the main determinants of rapid growth in developing countries. The education system in Egypt suffers from several weaknesses. First, the illiteracy rate (about 50 per cent) is very high especially among women (60 per cent). Second, available primary schools fail to absorb all pupils within this age group. Third, classes are overcrowded. Fourth, learning is mainly based on memorizing rather than on creative thinking. Fifth, technical education facilities are very limited and need substantial modernization. Sixth, universities and institutes of higher education are characterized by large number of students with poor budgets and capabilities. Seventh, private lessons are common at all stages of education including universities; they became one of the necessary conditions for getting higher grades and merits. The result of all these characteristics is wasted resources and unqualified manpower. Given the conditions of globalization, a labor force must match the needs of fast sustainable development. Furthermore, the system fosters income inequality since it favors those who can pay to acquire better education services over the deprived. Deep reform of the education system is urgently needed to eradicate illiteracy, promote creative thinking, and empower the labor force with the skills required in a fast changing world.

Behavior

The rate of GDP growth in any country is affected by the general behavior of the various actors in the society. Behavioral variables that require reinforcing in Egypt include discipline, the adoption of a precision culture, an emphasis on quality, and modesty in consumption patterns to raise the savings ratio.

Policies for Equity and Social Justice

A reform of social policies to achieve more equitable income distribution is needed in the following areas:

a) Social insurance and pensions;

b) Social spending priorities; These need to alter the primary distribution of income in favor of the poor; (especially in education,

health and housing for low income groups)

c) **Taxation;** by raising the share of direct taxes in total tax revenue;

d) **Labor;** by following more labor-intensive techniques of production - wherever this does not affect the cost and quality of the products - has the advantage of creating more job opportunities.

Accountability and Good Governance

Under centrally planned regimes errors and distortions accumulate due to the neglect of market forces in the decision process. Under market system regimes, the same weakness could occur due to an absence of accountability and lack of good governance. Checks and balances would ensure accountability and good governance.

The Role of the State

In a market oriented economy the state has a major role to play in distributing the benefits of growth and globalization. The target of equity should rank high in its priorities. Enforcing the law creates confidence and contributes towards a sound and disciplined climate. For example, enforcing Environment Law No.94/1995 would ensure a better quality of life. Transparency in all government departments would contribute towards accountability and good governance at all levels.

Peace in the Region

The Middle East has been plagued with wars and conflicts, which have diverted substantial resources away from developmental purposes. Long-term sustained growth would be enhanced by the prevalence of peace in the area. But peace does not depend on Egypt alone. It requires cooperative action from all countries in the region, as well as from external actors such as the USA and the UN. A just and comprehensive peace will favorably affect the human development not only of Egyptians, but of all the peoples of the Middle East region.

Regional and International Cooperation

The outcome of globalization on human development in developing countries depends partly on international cooperation towards giving it a human face. So far, it has led to a redistribution of income in favor of the rich countries. The impoverishment of developing countries will not enable them to achieve better living conditions for their people, and Egypt is no exception.

Annex 2.1
Constructing a Broader Human Development Index

Constructing such an index requires: (1) identifying the underlying dimensions of human development and investigating the interrelationships between the different aspects of each dimension, (2) choosing the most relevant indicators or variables that reflect those dimensions of human development; and (3) combining those variables in a smaller number of composite indices, preferably one.

Some subjectivity is always found in this type of analysis. Subjectivity is involved in the selection of the dimensions of human development, in the variables that measure each dimension and in the way these variables are combined. Weighting is used to linearly combine the selected variables into a smaller number of indices. Weights may be arbitrarily chosen as equal or they may be determined through multivariate statistical techniques such as factor analysis. The latter approach has been followed. Factors are determined such that each one of them explains successively smaller amounts of the original variability. If the original variables are highly interrelated, as expected in any human development index, the first few factors will account for a very high proportion of total variability.

In constructing the BHDI, several dimensions have been included, namely health, education, employment, income inequality, housing conditions and gender. We started with 25 variables but preliminary experimentation with principal component analysis led to the elimination of some of them; sixteen were retained as indicators of the selected dimensions of human development. **Health** is measured using the following three indicators: life expectancy at birth; the infant mortality rate; and the under-five mortality rate. Contrary to the life expectancy indicator, the last two indicators reflect the actual experience of the community, since they capture many dimensions of life that are critical, such as education levels, unsafe environments, access to safe water and sanitation, efficiency of health services, nutrition, and the status of women. Furthermore, they are more sensitive to economic policy changes. **Education** is reflected through the three indices of the adult literacy rate, enrollment rate, and female literacy rate. Female education can strongly contribute to human development levels through reduced fertility, lower population growth, reduced child mortality, reduced school dropout rates and improved family nutrition. **Housing conditions** are proxied by the percentage of households with access to sanitation. Four indicators represent employment: participation rates in the labor force for the total population and for females; professional and technical staff as a percentage of labor force; and the ratio of females to males in the labor force. Finally, the percentage of incomes of the highest and lowest quintiles, incidence of poverty, and of core poverty, and the percentage of wages of the poor out of total wages will be used to reflect **income inequality. Per capita GDP** expresses the level of income. It has been normalized to remain within the boundary of 100 per cent, by calculating the percentage of the difference between per capita GDP for each governorate and the national average GDP per capita, to the difference between the highest and lowest GDP per capita among governorates.

Having decided on the set of variables deemed to adequately represent human development; the multivariate measurement question is how to combine the selected variables into one or more indices. That is, if Y_i denotes a human development index and X_k's are variables that represent all aspects of human development, the problem is how to choose the functional form that combines X_k's to obtain Y_i's. Thus:

$$Y_i = F_i (X_1 , X_2,..., X_n), \quad i = 1,2,...,p$$

Naturally, the smaller p is, the more comprehensive the resulting summary description of poverty. Ideally p is equal to one.

The most popular functional form is the linear form. In this case, Yi is expressed as a linear combination of the Xk's and the methodological problem is reduced to determining the weights assigned to the Xk's to form the linear combination. For this purpose, factor analysis has been applied. Two factors were extracted. The first factor explains 69.64 per cent of total variability and hence it is reasonable to be considered as the BHDI.

Annex table (2.1.1) indicates the factor loading, communality and coefficient for each variable in the first factor. The magnitudes and percentages of the variables

used in factor analysis are averages for the years 1986, 1990 and 1996 as given in various issues of Egypt's Human Development Report (EHDR). Factor loading is the correlation between the original variable and the first factor. Variables with higher loadings are considered more important. Communalities show the amount of variance in a variable that is accounted for by the factor (or factors). Large communalities indicate that a large amount of the variance in a variable has been captured by the factor solution. Coefficients are the weights given to each variable to construct the index (BHDI).

All variables show high correlation with the first factor (loadings exceeding 75 per cent). Variables of female literacy, literacy rate, and percentages of the poor and of the ultra poor have the largest communalities (exceeding 90 per cent), indicating that those variables explain most of the variability in the constructed index. All coefficients have the right signs. Infant mortality rate, under five mortality rate, percentage of the poor, and of the ultra poor and percentage of wages of the poor out of total wages, have negative coefficients, indicating negative correlation with human development levels. Each governorate is assigned a BHDI calculated as the weighted sum of the above human development indicators, using the weights shown in Table (2.1.1). The index has been scaled to range from zero to 100.

Annex table (2.1.2) presents BHDI and HDI for each governorate. Comparisons between governorate ranks with respect to both indices are also shown. Higher ranks indicate lower levels of human development. The estimated rank correlation coefficient between the two indices appeared to be very high (0.968). There were no differences in ranks for twelve governorates, indicating consistent levels of all human development indicators. In six governorates, ranks with respect to BHDR were smaller than those of HDI, pointing to better levels of the added indicators (other than life expectancy, literacy rate, gross enrollment rate and GDP per capita). Aswan, Giza and Sohag governorates are the only governorates exhibiting a deterioration of their relative position according to BHDI. This index will be used in subsequent analysis, as it may have different implications than HDI for governorates where ranks, according to the two indices, do not coincide.

Annex Table (2.1.1)
Loadings, Communalities and Coefficients in the First Factor

	Loadings	Communalities	Coefficients (Weights)
Life expectancy	0.864	0.746	0.069
Infant mortality rate	-0.880	0.775	-0.062
Under five mortality rate	-0.915	0.838	-0.069
% households with access to sanitation	-0.905	0.819	0.071
Literacy rate	0.905	0.916	0.079
Gross enrollment rate	0.957	0.627	0.065
Female literacy rate	0.792	0.928	0.079
% income of top and lowest quintiles	0.963	0.649	0.052
% poor	0.806	0.918	-0.070
% ultra poor	-0.958	0.906	-0.066
% wages of poor to total wages	-0.952	0.845	-0.074
Participation rate in labour force	-0.919	0.832	0.077
Female participation rate in labour force	0.912	0.761	0.073
% of professional in labour force	0.872	0.876	0.070
Female to male labour force	0.936	0.842	0.076
GDP per capita	0.917	0.833	0.076
	0.913		

Annex Table (2.1.2)
BHDI and HDI by Governorates and According to Tanks

	Value of Index		Rank According to:		Differences in Ranks
	BHDI	HDI	BHDI	HDI	
Urban Governorates					
Cairo	86.65	79.2	3	3	0
Alexandria	74.67	71.5	4	4	0
Port Said	99.49	81.6	1	1	0
Suez	89.34	80.4	2	2	0
Lower Egypt					
Damietta	61.62	65.7	6	8	-2
Dakahlia	59.11	65.5	8	9	-1
Sharkia	46.99	60.5	12	12	0
Qaliubia	47.04	59.7	11	13	-2
Kafr-El-Sheikh	46.45	57.5	13	15	-2
Gharbia	54.41	64.7	9	11	-2
Menufia	43.51	59.5	14	14	0
Behera	36.12	56.8	16	16	0
Ismailia	63.16	70.4	5	5	0
Upper Egypt					
Giza	60.41	70.1	7	6	1
Beni-Suef	19.50	53.1	18	18	0
Fayoum	19.50	52.5	18	20	-2
Menia	14.04	51.3	21	21	0
Assiut	11.06	50.6	22	22	0
Sohag	14.83	52.6	20	19	1
Qena	21.00	56.5	17	17	0
Aswan	38.10	65.1	15	10	5
Border Governorates	**48.51**	**70.0**	**10**	**7**	**3**

Chapter Three

Globalization Challenges to Egypt's Production Sectors

Globalization challenges to the Egyptian economy go beyond its export/import relations with other economies and markets.

Globalization challenges to the Egyptian economy go beyond its export/import relations with other economies and markets. Export-import relations are the outcome of how different sectors of the national economy face increasing competition and market openness, a ceaseless technological revolution, intensified knowledge-based production, and the techno - economic alliances led by Trans - National Corporations (TNCs). This chapter, however, is dedicated more specifically to exploring the impact of globalization on Egypt's production sectors, focusing on agriculture, industry and the financial sector.

Modernizing Agriculture

Agriculture is an important sector of the Egyptian economy. It constitutes 19 per cent of GNP, and plays a major role in food supply. Moreover, one third of the Egyptian labor force is employed in agriculture and around 50 per cent of the population live in rural areas. In spite of a decline in agricultural exports to total Egyptian exports during the last two decades, agricultural products remain a potentially high and dynamic contributor to export growth.

In the period 1955-80, government policies were biased towards manufacturing and against agriculture. This was reflected in government interventions that negatively impacted upon the growth of agricultural production and its composition as well as productivity and pricing in the sector. This resulted in serious problems, notably with regard vital issues such as food security, and heavy dependence on the import of essential foodstuffs, which in turn, aggravated the balance of payments deficit. Consequently, the government launched an agricultural reform program, well before the beginning of the ERSAP.

However, reform has had to take place under serious constraints stemming from limited natural resources, especially irrigation water, and insufficient financial and physical capital for expanding cultivable land. Despite the far from negligible efforts to modernize the agricultural sector, there is still a need for a major technological push to ease many of these constraints. Whether globalization will help achieve this objective is a question that this section endeavors to answer by reviewing the reform measures, and by examining the probable effects of globalization on this sector.

Agricultural Sector Reform

The agricultural policy reform (APR) in Egypt has been carried out in three distinct phases:

Phase I (1986-1989) included the adoption of a number of measures dealing with price and market controls. During this period, procurement quotas for ten crops were abolished, input subsidies were reduced, and the private sector was allowed to conduct agricultural marketing and agribusiness. Private sector participation in agricultural export of some crops was also permitted.

Phase II (1990-1994) witnessed: (a) the elimination of subsidies to agricultural credit and inputs; (b) the end of procurement quotas for all crops; (c) the privatization of seed production for some major crops; and (d) the liberalization of agricultural prices as well as of agricultural land rent (Law 96 of 1992). Thus, deregulation and liberalization were the main features of this phase. Free market mechanism replaced government intervention in allocating agricultural resources and investments and deciding the terms of trade between this sector and the rest of the national economy.

Phase III started in 1994 and included privatization of government-owned land and companies, and opportunities for further private investment, especially in the development of new land. The government remains responsible for research and infrastructure facilities for agricultural extension.

The Impact on Crop Mix

Liberalization of agricultural prices and free cropping patterns had a significant effect on land allocation between crops and on productivity per feddan due to price incentives. Table (3.1) indicates better food security for the rural population between 1991 and 1997. The increase in production took place for all cereals, including wheat, rice, maize and sorghums. Wheat production increased from 2 million tons in 1983 to almost 6 million tons in 1997. Other food crops also showed a strong upward trend: vegetables, fruits and roots and tubers grew during the same period from 6.4, 4.4 and 1.3 million tons to 9.9, 7.4 and 3 million tons respectively.

The increase in production resulted from crop intensification, correction of prices in favor of food crops, and an increase in productivity per feddan due to technology transfer, especially the spread of improved varieties, and to intensification and streamlining of agricultural research and extension. Further, the implementation of APR resulted in an increase in the cropped area from 11.2 million feddans to about 12.5 million feddans.

Impact on Employment

After the liberalization measures, increased employment opportunities were opened to the labor force as an outcome of agricultural intensification. There are two types of labor in the agricultural sector; skilled and unskilled. Skilled labor works in specific operations that require qualifications and expertise, such as in machinery and horticulture, and these specializations normally offer permanent jobs. Unskilled labor works in manual operations, such as planting, hoeing, and weeding. Unskilled workers are easy to replace and their jobs are mostly temporary.

After APR, the pattern of crop rotation changed and cash crops became dominant. As is shown in Table (3.2), the agricultural labor force was 4.48 million before APR, representing 37.2 per cent of the total labor force. However, during Phase I of APR the agricultural labor force increased by only 1.71 per cent while the total labor force in Egypt registered an increase of 5.97 per cent. This means that other economic sectors were attracting more labor.. This became even clearer in Phase II, when the agricultural labor force grew by only 0.89 per cent while the total labor force growth rate was 10.75 per cent.

Table (3.1)
Growth in Agricultural & Food Production in Egypt

			1991	1997
Agricultural Production	Total	1989-1991=100	104.2	130.6
Agricultural Production	Per Capita	1989-1991=100	102.0	114.1
Food production	Total	1989-1991=100	104.4	132.1
Food production	Per Capita	1989-1991=100	102.2	115.4

Table (3.2)
Agricultural Labor Force (1982-1998)

	Total Labor Force 000s	Agricultural Labor Force		% Change from previous period in Agricultural Labor	% Change from previous period in Total Labor
		000s	%of total		
1982-1985	12045	4480	37.2	—	—
1986-1989	12765	4557	35.7	1.71	5.97
1990-1993	14138	4598	32.5	0.89	10.75
1994-1998	15850	4804	30.3	1.12	3.02

Recent cross-national and inter-temporal studies of growth show that in low and middle-income countries the direct and indirect effects of agricultural growth account for the bulk of job creation and poverty reduction. In Egypt, an agricultural growth rate of 4.9 per cent would be sufficient to meet the rapidly growing domestic demand for horticulture and livestock, leaving a portion for export. This rate of growth can be achieved with favorable and efficient institutional changes. Agriculturally-driven non-agricultural activities (ADNA) could expand, and consequently increase wages and the demand for labor in rural areas.

Table (3.3)
ADP share in GDP (1982-1998)

	GDP	ADP	%	Based on:
1982-1985 (1)	23663	4117	17.4	(1) Prices of 1981/1982
1986-1989 (2)	44320	9031	20.4	(1) Prices of 1986/1987
1990-1993 (3)	135005	22324	16.5	(1) Prices of 1991/1992
1994-1998 (4)	25366	43920	17.3	(1) Prices of 1986/1987
				Values LE Milion

With a growth rate of 8.2 per cent in the Egyptian economy and of 4.9 per cent in the agricultural sector, 924,000 jobs could be created by the year 2006/7. The autonomous non-agriculture sector would create 44 per cent of these jobs and ADNA would generate 74 per cent of the rest.

Impact on Rural Income

The APR has affected the major crops as well as annual production profitability. Examining its impact on rural income requires the study of changes in agricultural income at the macro level, as well as the agricultural domestic product (ADP) at the sectoral level. This could be done through two indicators: the share of ADP in GDP and the agricultural income (AI).

Table (3.3), illustrates the development of GDP and ADP before and throughout the ARP's three phases. ADP during the pre-reform period reached an average of L.E. 4117 million annually, with a share of about 17.4 per cent of GDP. During Phase I, these two indicators increased to L.E. 9031 million and 20.4 per cent, respectively. But during Phase II the share of ADP in GDP decreased to 16.5 per cent although its value increased to L.E. 22324 million. This is due to higher growth rates witnessed by other economic sectors. Finally, in Phase III the ADP share in GDP has increased by only 0.8 percentage points.

Moreover, Table (3.4), which presents developments in agriculture income (AI), both in real and nominal values, shows a net positive impact of the policy reform. In constant prices, AI was L.E. 1934.4 million during the pre-reform period, and increased to L.E 2135.7 million in Phase I, with an average annual growth rate of about 1.38 per cent compared to 5.04 per cent in the preceding period. In Phase II the agricultural income decreased to L.E 1912.2 million, registering an average annual rate of decrease of 6.25 per cent. Elimination of input subsidies, during Phase II, resulted in an increase in agricultural input prices by a higher percentage than that of agricultural output prices. But by Phase III, and as a consequence of implementing most of the APR program, agricultural income reached L.E. 2138.4 million with an increase of 11.83 per cent compared to the previous phase. This growth in income resulted from greater efficiency and higher output prices.

However, the APR does not only have a direct effect on agricultural activities, it also stimulates and induces non-farm activities. Policy for reducing poverty and improving income distribution in rural Egypt should focus on non-farm income, which accounts for almost 60 per cent of total income for

Table (3.4)
Evolution of Egyptian agricultural income (1982-1997)

	Pre Reform (1982-1985)	Phse I (1986-1989)	Phse I (1986-1989)	Difference in % between the pre-reform and Phase III
Agricultural Income at current prices (LE million)	2970	12345	20261	463.4
Agricultural Income at current prices (LE million)	1934.4	21357	2138.4	10.54

the rural poor. Non-farm income is a means to reduce income inequality in a land-scarce setting such as rural Egypt, which pushes poorer households out of agriculture and into the non-farm sector.

Table (3.5) shows the importance of non-farm income in total family income according to per capita income quintiles in rural Egypt. Sources of income shown in the table are non-farm agriculture, transfers, livestock and rent. For the lowest quintile, non-farm income contributes about 59.0 per cent of total income, while it is only 38.4 per cent for the highest income quintile. Income from agricultural activities contributes only one third of total income. This shows the importance of non-farm income in terms of its contribution to poverty alleviation and improvement in the rural standard of living.

Impact on Technology Transfer

APR sought the exclusion of government from direct involvement in production, marketing and agribusiness activities. Thus, the Ministry of Agriculture (MOA) has become responsible for just research and extension. The privatization process is part of the ERSAP, which aims to transform Egypt into a market economy. The government is keen, however, to protect public funds and workers' rights. The privatization process is assumed to be conducive to technology transfer and the upgrading of management, as private investors are supposed to use new technologies and to have better management capabilities (See Box 3.1)

Most challenges confronting the agricultural sector in Egypt may be attributed to limited cultivated land, limited water resources (see Box 3.2), and the rapidly growing population. As a consequence, Egypt has been facing a food gap for the last three decades. Egypt needs to increase food production vertically through appropriate agricultural technology, such as new varieties of various field and horticultural crops. After APR, the MOA became mainly concerned with strengthening its integrated agricultural research and extension, in addition to its responsibilities in the areas of legal and regulatory quality control.

Agricultural research in Egypt is supported and financed through governmental and international organizations such as USAID, the EU, UNDP, FAO and by countries such as Japan. This funding support has helped Egypt strengthen its collaboration and

Table (3.5)
Sources of Income in Rural Egypt Ranked by Quintile on the Basis of Total Per Capita Household Income (1997)

	Average Per Income L.E.	Share in Per Capita Income (%)				
Quintile		**Non-Farm**	**Agricultural**	**Transfer**	**Livestock**	**Rental**
Lowest		59.0	35.8	26	5.4	(-2.8)
Second	402.35	52.1	18.7	19.5	8.3	1.4
Third	615.52	51.3	19.4	16.1	10.6	2.6
Fourth	955.25	52.5	20.4	15.1	8.2	3.9
Highest	2455.28	38.4	26.0	16.6	8.6	10.4
Total	**980.83**	**50.0**	**23.9**	**14.3**	**8.3**	**3.5**

Box (3.1)
Privatization Program of Agricultural Companies

By the end of 1998, the Privatization Program (PP) included 119 companies representing 38 per cent of the 319 public business sector companies. In seventy-two companies, divestiture of public ownership exceeded 51 per cent. Thirty-six of them were sold in the stock market, ten to an anchor investor, and twenty-six to workers' unions. Under the PP, only one company from the agriculture sector was privatized. In 1999, the Ministry of Public Business Sector (MOPBS) announced the details of the second stage of the PP. This program covered sixty-two companies for sale. In addition, twenty-eight companies were liquidated.

Some of the agricultural companies, which were prepared for privatization in the first half of 1999, were involved in direct agricultural activities, while the rest served the agricultural sector or used agricultural raw materials. The land owned by agricultural companies was sold to the private sector. In 2000, MOPBS completed the 1999 privatization program and announced a new program that included many agricultural companies.

Box (3.2)

Irrigation and Water Availability

Scarcity of water constitutes a real challenge to agriculture in almost all countries of the Middle East. Given available water resources, the region is, and will continue to be, a food deficit area. Egypt confronts the same challenge. Water resources are limited by the amount received from the Nile, which is 55.5 billion cubic meters (CM) per year, according to the agreement with Sudan in 1959. Around 85 per cent of this quantity is used by agriculture, and the rest is for other uses (civil, industrial and navigation). Accordingly, per capita water availability per day is 2.5 CM, which is just equal to the water poverty line.

There are ongoing efforts to conserve and expand water resources in Egypt. This includes: planning for projects to save water in the Upper Nile; recycling agricultural drainage and wastewater; expanding the use of underground water; efficient use of rain water on the North Coast and the application of water management techniques; and the upgrading of water irrigation methods, such as drip systems. The Ministry of Irrigation is also intensifying water extension services and the creation and support of water service associations (NGOs). Furthermore, efforts have been made to limit water pollution.

Horizontal Agricultural Expansion and the Water Constraint

The horizontal expansion program includes the reclamation of 3.4 million feddans (MF) during 2000-2017. There are plans to supply this area with irrigation water in sufficient quantities. MOA is producing crop varieties of short cycle (with less water requirement) such as rice, and also varieties tolerant to drought and salt.

The MOA aims to increase the cultivated area from 7.8 MF to about 8.39 MF in 2002, then to 8.855MF in 2007, 9.7 MF in 2012 and to 11.2 MF in 2017. The annual water requirements for an additional one feddan is estimated on average to be about 5200 CM in the Delta region, and 7000CM in Upper Egypt and in sandy soil.

The most important question now and for the future is to do with the efficiency of water use in relation to the cropping pattern. Egypt should follow a strategy to economize the use of its water. Egyptian agricultural exports are currently horticultural crops, which are actually indirect exports of water. The cropping mix, which must be studied, should give the maximum economic returns from the available water resources. It is recommended that the economics of agriculture in Egypt stress the productivity per CM of irrigation water rather than per area (feddan). Food crops must be given sufficient priority in the cropping pattern of the land to protect and secure food for the poor.

partnership with the global system for agricultural research. Egypt should look to research to increase food production with higher quality and lower prices. The agricultural sector has to look for new opportunities to strengthen its research capabilities particularly under the globalization process. These could be found through collaboration with international agricultural research centers and the private sector in research and extension activities (See Box 3.3).

Box (3.3)
The Agricultural Research System in Egypt

The agricultural research system in Egypt started as early as 1897 under the Royal Agricultural Society. Since then, research and related activities have expanded exponentially. In the early 1980s, Presidential Decree No. 19 established the Agricultural Research Center (ARC) as a semi-autonomous organization for scientific research and extension activities.

Activities and research conducted by ARC include:

- Pilot agricultural projects
- Training extension engineers and village agents
- Designing and monitoring national crop campaigns.

In the second half of the 1980s, the MOA started a comprehensive program to improve extension services through redistribution of staff and advanced training courses. The redistribution system set up some rules, three of which were key for sustainable and effective extension services:

- One extension officer for each 200 feddans.
- Residential extension staff .
- Transfer of extension staff through ministerial decree

A second means of improving extension services has been through various types of training courses using ARC and/or university staff. These courses are planned to cover all extension employees in the MOA headquarters and regions. The insufficient public funds allocated to these activities is largely compensated for by foreign donor-funded projects for technology transfer and training programs, such as ADS, SFPP, EMCIP, NARP, APCP, CAT and UTP.

The extension administration improved and strengthened their staff through three types of training: conventional; on-the-job; and overseas. In addition to ARC, there are other governmental research centers, institutes and universities which are involved in agricultural research. There are currently 11,407 professional scientific staff working in major Egyptian research organizations in agricultural science.

In addition to governmental research institutes and universities, there are twenty-two private sector seed companies and several other private companies involved in agricultural, chemical and pesticide research. However, most of these companies cooperate with governmental research staff for the creation of new hybrids and pay royalties for utilizing such varieties and innovations.

Two ministerial decrees, (No.523/1993 and No.148/199,) were issued in order to help strengthen and support linkages among researchers in academic communities through the establishment of four research extension councils to serve Egypt's four agricultural regions. In 1997 ministerial decree No.89 established the National Council for Agricultural Research (NCAR), which is in charge of the formulation of a national agricultural research policy, and the organization and finance of agricultural research to serve sustainable agricultural development in Egypt. The NCAR is authorized to supervise activities and functions related to research and extension performed by the four regional councils.

Impact on Human Nutrition

Table (3.6) shows the nutritional status of an average Egyptian between 1983 and 1996. Despite the increase in population from 47 million in 1983 to around 63.2 million in 1996, nutritional status has improved in terms of both calories and total protein intake. Only one item in the nutritional data, namely the animal protein intake per capita, did not show any change. It was stable at the level of 13 grams per day, constituting only 10 per cent of total protein intake (88 grams). Vegetable sources, mainly cereals, provide the average Egyptian with about two-thirds of their energy and protein requirements. Increasing the sources of animal protein (fish, poultry, meat, eggs and milk) must be of real concern to decision-makers if the nutritional levels of poor people are to be improved.

Increasing the sources of animal protein fish, poultry, meat, eggs and milk must be of real concern to decision-makers if the nutritional levels of poor people are to be improved.

Table (3.6)
Per Capita Nutritional Status in Egypt for 1983 and 1996

Item	Element	Unit	1983	1996
Food, total	K/calories	P. Cap/day	3039	3289
Food, total	Protein Gr.	P. Cap/day	79	88
Food, total	Fat Gr.	P. Cap/day	62	58
Vegetable Products	K/calories	P. Cap/day	2089	3091
Vegetable Products	Protem Gr.	P. Cap/day	66	75
Vegetable Products	Fat Gr.	P. Cap/day	43	43
Animal Products	K/calories	P. Cap/day	231	198
Animal Products	Protein Gr.	P. Cap/day	13	13
Animal Products	Fat Gr.	P. Cap/day	19	15
Cereals	K/calories	P. Cap/day	1924	2178
Cereals	Protein Gr.	P. Cap/day	53	59
Cereals	Fat Gr.	P. Cap/day	14	15

Probable Effects of Globalization

The possible effects of globalization on Egyptian agriculture will be assessed through three main variables: agricultural foreign trade, farm price variability and germplasm.

Agricultural Foreign Trade

As Table (3.7) shows, agricultural imports constituted around 30 per cent of total merchandise imports in 1996, while agricultural exports were around 15 per cent of total merchandise exports, which means that agricultural exports covered only 13.5 per cent of agricultural imports in 1996 compared to 13.9 per cent in 1983. This indicates the rigidity of agricultural exports and the large deficit in the agricultural trade balance.

Liberalization of economic relations through ERSAP and the implementation of the WTO agreements did not have a significant impact on agricultural exports. This is due to issues related to the supply side. This situation may change in the future when all aspects of reform produce deep and sustainable effects. From the same table the deterioration in agricultural terms of trade can also be noticed. The unit import value index reached 125.9 per cent, while the unit export value index reached only 67 per cent (1989-91 = 100).

This evidence indicates that Egypt must expand its exports in general, and

Table (3.7)
Egyptian Agricultural Foreign Trade (1983- 1996)

Item	Element	Unit	1983	1996
Total Merchandise Trade	Imports	MLN $	9202	13020
Total Merchandise Trade	Exports	MLN $	2585	3534
Agricultural Trade	Imports	MLN $	3076	3862
Agricultural Trade	Exports	MLN $	427	521
Agricultural Trade index	Imports Val	1989-91=100	105.5	132.9
Agricultural Trade index	Import U/V	1989-91=100	101.5	125.9
Agricultural Trade index	Import Vol	1989-91=100	104.1	105.6
Agricultural Trade index	Exports Val	1989-91=100	94.6	109.7
Agricultural Trade index	Export U/V	1989-91=100	102.8	67
Agricultural Trade index	Export Vol	1989-91=100	89.9	159.7

agricultural exports in particular, in order to be able to import enough food to ensure food security and to achieve self-reliance. This can only be done through an upgrading of the marketing system and trade infrastructure, especially in the areas of post harvest [meaning?] and transportation. Lowering the costs of Egyptian products through improvement of productivity, with the assurance of high quality, is the key to competitiveness in the international markets. Further, Egypt has to transform its fresh and raw products into processed ones in order to improve its terms of trade and to create more job opportunities and increase value added.

Farm Price Variability

The combined process of APR, the membership of Egypt in the WTO and the increasing forces of globalization have had a strong impact on Egypt's price structure. Agricultural prices have become more sensitive and responsive to international forces. They fluctuate from one season to another and also from year to year. The openness of the Egyptian economy to the international market may lead to a wide range of price fluctuations. This price instability naturally creates an unstable farm income stream, which is harmful to the agricultural sector, particularly small farmers, in terms of farm investment, production plans and poverty.

In most countries, whether developed or developing, price stabilization schemes are in force to protect the population against severe price fluctuations. In Egypt, the Agricultural Price Stabilization Fund compensates farmers in the case of a drastic decrease in farm prices. However, this Fund needs to be supported with sufficient financial resources and an effective mechanism for its efficient operation.

The impact of globalization is felt not only on farm prices but also on prices for consumers, especially for basic food. Egypt imports around fifty percent of its food consumption needs, mainly wheat. In cases of irregular and large increases in major food prices, the cost for the urban poor will be very high. The GOE would therefore be wise to be ready to intervene to ensure that basic food needs for the poor are met at a reasonable cost.

In most countries, whether developed or developing, price stabilization schemes are in force to protect the population against severe price fluctuations.

Germplasm (Genetic Resources)

One particular sub-sector of agriculture is plant germplasm, which provides a particularly arresting counter-example to globalization. Restricted germplasm flows among nations are causing potentially adverse consequences for agricultural development in developing countries. This restricted movement is due to the monopolistic practices of multinationals which, through privatization and mergers, have acquired most of the valuable genetic resources (Table 3.8).

In order to expand food production for its growing population, Egypt has to strengthen its research institutions to generate new varieties, and to seek partnerships with international agricultural research centers, especially in the field of genetic improvements in basic food crops.

Table (3.8)
Changing Structure of the "Plant Genetics" Industry

Major Remaining Companies	MONSANTO (Phar Corporation	AVENTIS	DUPONT	SEMINIS	Dow Chemic	Syngenta (Pending FTC approval	
Conglomerates		Agr Evo Rhone-Poulenc Hoechst Scherin			Dow Elanco	Novartis	Astrazeneca
Agricultural Companies Biotech Companie Seed Companies	Agracetus Calgene I Millennium Pharma De-kalb Asgrow Holc Foundation seeds Car-gill Int'l plant B Int'l	Plant Genetic plant Tec Nun-herns Va plant Genetic Sun Seeds Can lima-grain Vegetable Gene	Human science Curag Pioneer Hybr	Asgrow Royal Sluis	Mycogen Ribo Phar-maeutical Mycogen unit Agri-seeds	Ciba-Sandoz Northrup King S&Hillesh og seeds Rog Co.	Mogen 1nt'1 N.V. Japan To-bacco Ad-vanta

Achieving higher sustainable growth must be through a dynamic export sector founded on a robust manufacturing base.

Industry Modernization

Since 1992, the real growth rate in Egypt has been rising, reaching more than 5 per cent per annum in the last three years of the decade. It is targeted to reach 7 per cent in the coming few years. In recent years, export promotion policies have been strongly advocated as a superior development strategy for semi-industrialized countries. Moreover, evidence shows that manufactured goods are at the core of any successful export-led growth strategy. Hence achieving higher sustainable growth must be through a dynamic export sector founded on a robust manufacturing base.

However, the multilateral trade liberalization after the Uruguay Round and the new regional initiatives in other parts of the world are likely to erode the preferential access of Egyptian resource-intensive exports to European markets. Egypt will have to face a sharp increase in competition in labor-intensive exports from many MENA and Asian countries. Competing in these low-technology products depends mostly on cost reduction, which requires high productivity growth to reduce the unit labor cost while maintaining growth in real wages. Alternatively, but more difficult and demanding, competition in low-technology products can depend on product differentiation, which requires a high degree of mastering of the production process (in terms of new design, components, materials etc.) Otherwise, competition in these products will be at the expense of suppressing real wages and welfare in the economy.

A set of questions is addressed in this section: How does the structure of the Egyptian manufacturing sector affect the pattern of trade and competitiveness? What are the likely prospects for globalization of the Egyptian manufacturing sector? Could Egypt compete against high technology firms in industrialized countries or even against medium technology firms in the newly industrialized countries? What is the pattern of industrial modernization needed in order to maximize the benefits of globalization and minimize its threats?

The Egyptian Manufacturing Sector in a Global Setting

The Industrial Base

At the macro level, the economic variables of Egypt's manufacturing sector had experienced some improvement by the end of the 1990s. The growth rate of the sector was the highest among all economic sectors; it rose to 7 per cent on average in the years 1996-98 (Table 3.9), which led to more than doubling the industrial base between 1990 and 1998 (see Table 3.10). Also, the contribution of Egypt's manufacturing sector to value added at the national level had reached its highest level over the 1990s amounting to 19 per cent in 1998/99.

Table (3.9)
Sectoral Average Annual Growth Rates in Egypt (%)

	1992-95	1996-98
GDP growth	3.98	5.36
Agriculture, value added	2.80	3.41
Manufacturing, value added	3.81	7.83
Services, etc., value added	3.21	5.55

This level of performance is close to those of most of the countries in the MENA region. Yet, it is lower than the average for the developing countries (with an on average contribution of 26.7 per cent by the manufacturing sector to GDP, during the period 1991-98). It is also much lower than that of the newly industrialized countries in South East Asia. The manufacturing sector amounted to around 30 per cent of GDP in Korea, Malaysia and Thailand during the period 1991-1998. The industrial base of Egypt is almost half that of Thailand or Indonesia, and two-thirds that of Malaysia or Turkey. China and Korea are beyond comparison. However, manufacturing output in Egypt is more than double that of Morocco or Tunisia (Table 3.10).

Table (3.10)
Relative Development of Industrial Base
(Manufacturing Value Added of Egypt 1991=100

Country	1991	Average (1992-95)	Average (1996-98)
China	1505	2290	4019
Egypt, Arab Rep.	100	135	212
Indonesia	327	466	556
Jordan	..	..	..
Korea, Rep.	1025	1348	1540
Malaysia	159	257	332
Morocco	57	63	73
Philippines	138	172	205
Thailand	332	460	544
Tunisia	27	34	43
Turkey	324	350	355

Table (3.12)
Relative Development of Industrial Base
(Manufacturing Value Added of Egypt 1991=100

Country	Resource-based	Labor intensive	Technology intensive
China	..	..	..
Egypt, Arab Rep.	37.0	38.7	24.4
Indonesia	17.9	56.2	25.9
Jordan	36.5	29.3	23.1
Korea, Rep.	12.2	40.0	47.5
Malaysia	16.2	29.4	54.4
Morocco	34.0	39.1	26.9
Philippines	39.0	28.2	32.8
Thailand	52.3		47.7
Tunisia	27.5	43.6	28.9
Turkey	25.0	47.8	27.2

Structure

Table (3.11) depicts the share of the major manufacturing branches in total manufacturing output. It shows that the four branches of 'food and beverage', 'textile and clothing', 'chemicals', and 'machinery and equipment,' constitute the bulk of manufacturing output (between 45 per cent-70 per cent) in the sample countries, but with different domestic structures. However, these branches constitute a combination of resource-based, labor-intensive (low knowledge), and knowledge-intensive products. Egypt's industry is heavily natural resource-based. This reflects itself in the bias of the structure of manufacturing output towards chemicals, food and textiles. Next to Jordan, the importance of chemical industries in Egypt is the highest in the sample.

The share of products with technology-intensive content is lower than anticipated. Table (3.12) presents a detailed distribution for the three major contents (resource, labor and knowledge) of manufacturing output, regardless of the type of activity. As can be seen from the table, the importance of manufacturing products that have a high knowledge-content in Egypt's manufacturing sector is almost half that of Korea, Malaysia and Thailand. However, it is close to those of other countries of the MENA region

The Structure of Manufactured Exports

Statistics show that the share of high-tech products in Egypt's manufactured exports is lower than the share of these products in manufactured output (see tables 3.12 and 3.13). This could be explained by the inability of the Egyptian output structure to be channeled into the export structure. What is striking is that industrialization in Egypt has deep historical roots, yet it has not evolved to a stage beyond that of Tunisia, for example.

It is argued that productive capacities and their knowledge levels are closely linked to the ability of the economy to export and compete internationally. The high performance of the Asian newly industrialized

Statistics show that the share of high-tech products in Egypt's manufactured exports is lower than the share of these products in manufactured output.

Table (3.11)
Manufacturing Outputs' Structure (1995)

Country	31*	32	33	34	35	36	37	38	39
China	12.0	15.1	1.2	2.8	18.4	6.3	11.8	30.2	2.2
Egypt	25.3	13.7	0.6	3.3	29.1	6.7	8.4	12.9	0.1
Indonesia	22.6	19.6	9.8	4.7	15.2	3.5	6.0	18.0	0.8
Jordan	20.3	4.7	2.9	5.2	43.0	10.3	4.9	8.4	0.2
Korea	9.1	11.3	2.0	4.3	18.1	4.4	8.4	41.4	1.1
Malaysia	14.4	4.4	6.3	2.6	15.6	3.0	4.7	48.0	0.9
Morocco	35.0	17.5	2.0	4.4	18.2	6.9	1.6	14.4	0.1
Philippines	29.5	8.8	2.1	3.8	26.0	3.4	6.6	19.1	0.8
Thailand	..	12.81	1.36	..	13.01	5.23	4.86	25.33	1.98
Tunisia	23.9	24.5	3.7	2.7	23.2	7.8	5.6	7.4	1.1

***ISIC classification:** Food, beverage, and tobacco (31) - Textiles, wearing apparel, leather, and footwear (32) - Wood and wood products, including furniture (33) - Paper and paper products, printing and publishing (34) - Chemicals (35) - Non-metallic minerals (36) - Basic metals (37) - Metal products, machinery and equipment (38) - Other manufacturing industries (39).
.. Figures are not available.

countries, in terms of sustainable fast growth rates for two decades, is due mainly to their ability to develop highly competitive industries. If this is the case, then the industrialization process in Egypt is highly questionable.

Competitiveness of Egyptian Industry

Measuring competitiveness encompasses two indicators: absolute efficiency, which reflects the level of production costs relative to other countries; and relative *efficiency*, which explains the pattern of international specialization in production. Comparisons of relative wage adjusted for productivity, measured in terms of unit labor cost, would give a simple, though not comprehensive, technique to measure absolute efficiency. For relative efficiency, comparative advantage techniques, i.e. revealed comparative advantages (RCA), would be the main indicator.

Table (3.13)
Manufactured Exports' Structure 1995

Country	Resource-based	Labor intensive	Technology intensive
China	12.7	51.5	35.8
Egypt	37.5	49.8	12.7
Indonesia	39.9	35.7	24.4
Korea, Rep.	6.3	23.7	70.0
Malaysia	20.0	11.0	69.0
Morocco	49.2	29.9	20.9
Philippines	22.1	28.2	49.7
Thailand	22.0	30.2	47.7
Tunisia	19.0	55.1	25.9
Turkey	18.8	57.2	24.1

However, with the growing tendency to establish free trade areas, the globalization process in the manufacturing sector would affect not only the international position of the sector, but would also have an impact on its domestic presence. In this case, local competitiveness of the sector is an important issue that has to be explored.

Wages and productivity

As appears from Figure (3.1,) which presents the unit labor cost of the set of countries under study, Egypt has one of the highest unit labor costs despite the relatively low wage level per worker in manufacturing. Levels of productivity of manufacturing workers in Egypt, as displayed in Figure (3.2), are relatively very low. Therefore, lower wages do not constitute any comparative advantage to Egypt's manufacturing sector.

Furthermore, as shown in Figure (3.2a), the bulk of the plot clusters lie at the bottom of the distribution. This indicates a phenomenon of low wage-productivity equilibrium in Egyptian manufacturing. This is highlighted more through international comparison. As figure (3.2b) shows, Egypt lies behind most other countries.

Figure 3.1 : Average Manufacturing Unit Labor Cost

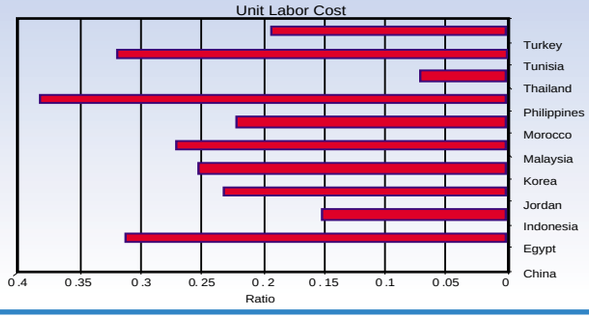


Figure 3.2 : Relation Between Wage and Productivity

Figure 3.2a

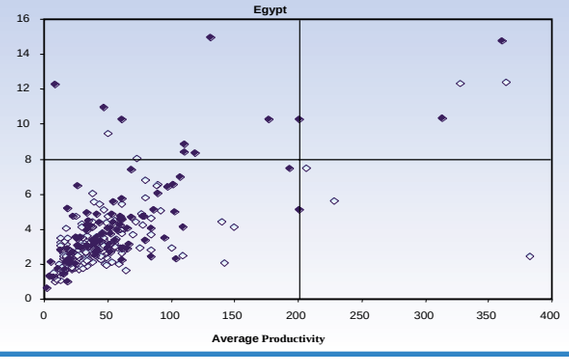
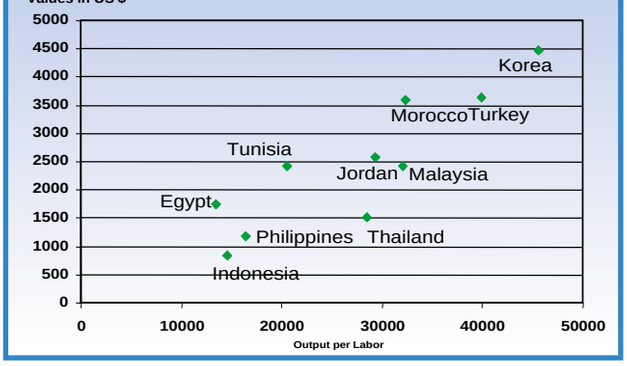


Figure 3.2b



Revealed Comparative Advantages

Table (3.14), which presents the results of applying the technique of RCA to figures of exports for each country in our sample, shows that the same phenomenon, of primary commodity bias in Egyptian trade, manifests itself when the structure of commodity groups in which Egypt has a revealed comparative advantage is explored. Even the Philippines, that has a lowers number of products with RCA than Egypt, has a more diversified structure with good presentation in the high-knowledge categories of machinery and equipment. Most of the commodities in which Egypt has RCA are natural resource-intensive or labor-based industries. The relative highest commodity group in which Egypt enjoys the greatest number of commodities with RCA, in comparison to those of other countries for the same group, is the 'mineral fuels, lubricants and related materials' group. Petroleum and its products belong to this group. This RCA in petroleum and its products is not expected to be sustainable in the long run. And the lowest RCA prevailing in the relative structure of Egyptian merchandise is the 'machinery and transport equipment' group. This is the group with a continuously increasing share in world trade.

During the first half of the 1990s, the national income of Egypt had experienced a loss of almost 2 per cent, due to the deterioration in the terms of trade for the resource-based products that Egypt trades in. High rates of innovation of man-made substitutes for natural resource - based products constitute a major challenge that confronts trade in products with high natural content. That is to say, the higher the share of primary resource-based products in Egypt's export structure, the more the loss in competitiveness and income the economy is exposed to. The first category in which Egypt has the highest number of commodities with RCA is 'manufactured goods classified chiefly by materials', in which the groups of 'textiles' and 'wearing apparel' are included. For these two groups, Egypt enjoys international competitiveness, yet to a lower degree for apparel compared to textiles.

Domestic Competitiveness

Imports competing with domestic products represent a threat that becomes tangible when the policy of economic openness is pursued at high speed. In this situation, consumer demand develops more rapidly than the capacity of local firms. Domestic suppliers begin to lose their internal markets, thereby allowing a continuous increase in the foreign component of domestic consumption. If local firms fail to dominate their own domestic markets, they would presumably have little chance to compete internationally.

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Table (3.14)
Manufacturing Outputs' Structure (1995)

Export Categories	China	Egypt	Indonesia	Korea	Malaysia	Morocco	Philippines	Thailand	Tunisia	Turkey
0	43	23	31	10	12	35	16	38	17	44
1	2	0	1	0	1	0	1	4	4	4
2	29	25	27	11	17	25	16	25	15	35
3	7	8	8	1	7	2	2	4	4	2
4	6	2	6	0	8	3	2	3	2	6
5	31	15	12	22	11	5	7	16	11	16
6	109	49	43	75	31	39	26	58	32	89
7	44	0	11	45	36	2	13	41	14	17
8	90	17	41	40	28	34	33	61	49	50
9	0	0	2	1	0	0	3	1	0	0
Total	361	139	182	205	151	145	119	251	148	263

***ISIC classification:** Food, beverage, and tobacco (31) - Textiles, wearing apparel, leather, and footwear (32) - Wood and wood products, including furniture (33) - Paper and paper products, printing and publishing (34) - Chemicals (35) - Non-metallic minerals (36) - Basic metals (37) - Metal products, machinery and equipment (38) - Other manufacturing industries (39).
.. Figures are not available.

Productive units in Egypt are expected to confront with the opening of the economy and the anticipated change in consumer preferences.

In this area, local competitiveness is measured by applying the World Bank's Index of 'export competitiveness' to domestic data. This index reflects the development of domestic consumption arising from local output of the commodity in question. If applied to the textile sector, as a representative example of domestic competitiveness, the index is defined in terms of growth of Egypt's textile consumption that is satisfied by domestic production. This growth depends basically on the capabilities of local productive units to: (i) respond rapidly to the growth of domestic consumption of textiles (f1);(ii) deepen their market share, i.e. increase the share of local production in total domestic consumption of textiles (f2); and (iii) diversify their textile production to be capable of satisfying the increasingly diversified consumers demand (f3).

Table (3.15) depicts the results of applying the WB's formula in the case of Egypt and Turkey. Computations are based on the application of regression analysis to regress growth of textile consumption satisfied by local production on the growth of total national consumption of textiles (f1), and the market share of local manufacturing relative to the growth of domestic consumption (f2). The diversification factor (f3) is obtained as a residual.

Table (3.15)
Domestic Competitiveness of Textiles

Country	f_1	f_2	f_3	g
Egypt	0.73	0.01	-0.12	0.72
Turkey	3.11	-0.49	0.79	3.35

(*) $g = f_1 + f_2 + f_3$

It is also shown in the table that the bulk of growth of the local component in the structure of domestic consumption is attributable to the growth of this consumption per se. Effects of product diversification are apparent in the case of Turkey, but not for Egypt. This factor highlights the challenges that productive units in Egypt are expected to confront with the opening of the economy and the anticipated change in consumer preferences. In comparison to Egypt, consumption in Turkey has been experiencing high growth rates due to the notable increase in per capita income and the rapid opening up of the economy. With the growth of intra-trade, (f2) would most probably register low values, and negative signs in more open economies.

With the relaxation of tariffs on imports under the Egypt-EU Partnership Agreement (E-EUPA), effective rates of protection on textile products would decrease to negative rates by the end of the phases of tariff reductions. Figure (3.3) illustrates the reduction of effective rates of protection on the two major branches of the domestic textile sector (spinning and weaving, and ready-made garments) according to the four phases of tariff relaxation of the E-EUPA. The market penetration ratio (MPR) was always minor on products of this industry due to the existence of import bans and very high tariff walls. After the removal of protection, the domestic products of this sector will not be able to face external competition. Prices of most of these products (either inputs, or final outputs) are much higher than international prices due to inefficient domestic production processes. This shift towards imports will negatively affect the level of domestic production. This loss of local competitiveness could be generalized to many industrial branches. Many of the local industrial outputs have higher prices than their international counterparts, due to inefficient practices in the production and pricing processes, such as the presence of both technical and allocation inefficiencies and high mark-up prices.

To sum up, the above analysis discussed the position of Egypt's manufacturing sector in the international context. Relatively speaking, the level and technology content of the industrial base in Egypt is close to that of many competitive economies, such as Tunisia, Morocco, and Turkey. Yet, for Egypt's manufactured exports, both the level and the technology content are largely below these countries. The international position of this sector in external markets is expected to face major challenges from many developing countries that are producing close substitutes to Egypt's exports. Moreover, the increase in the degree and speed of globalization through the introduction of regional free trade areas

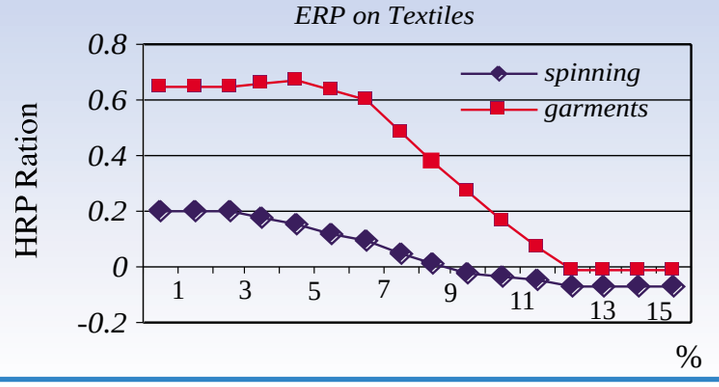
will endanger the domestic competitiveness of this sector. International competition will extend to the domestic market through the phasing out of tariffs. The high tariff wall that the sector enjoyed for long decades could collapse and open the economy to competition from strong advanced countries. For a suggested pattern of Egypt's industrial development under globalization see Box (3.5).

Globalization and the Appropriate Export Strategy

This critical situation raises many questions about how to proceed in dealing with these challenges. Could the Egyptian economy specialize in producing and exporting labor-intensive products? Many countries were able to compete internationally and realize high levels of growth through this strategy. This in turn depends on the economy's capacity to reduce the unit labor cost of its labor-intensive exports to practice price competition. If the skills and productivity of the labor force are not growing fast, implementing the suggested export strategy will be at the expense of reducing real wages. If real wages are already very low, then poor employees in the manufacturing sector will subsidize the export strategy, which will result in a high negative impact on welfare. This is likely to be the case in Egypt.

In investigating this assumption, we will focus on the private manufacturing sector

Figure 3.3 :
Effective Rates of Protection on the Textile Sector



Box (3.4)
Egypt's Industrial Development: A Suggested Pattern
by
Dr Mamdouh Al- Sharkawi
(Institute of National Planning)

In a globalized world, a domestic market becomes an extension of foreign markets. It is therefore necessary, when developing existing industries and selecting new ones, to focus on those which deepen domestic industrialization. These industries should mainly be characterized by the following:

- Strong backward and forward linkages that allow the establishment of new industries that depend on the use of domestic inputs.
- Capability of responding to domestic market needs by using domestic raw materials and/or domestically produced semi-finished products.
- Ability to compete with similar imported products in terms of both price and quality.
- Maximization of manufactured exports and job opportunities.

The most important Egyptian industries that are likely to meet these conditions are chemicals; cement; garments; shoes and leather products; toys and sports equipment; aluminum; and iron and steel. It is also recommended that special attention is given to small and medium firms, especially in the furniture, shoe, and garment industries.

Moreover, the suggested industrialization pattern requires the adoption of a number of policies, among which are the following:

- The existence of specialized marketing firms that play both the role of guiding industrial firms in deciding what to produce and in what quantity, and for marketing the products of these firms.
- Establishment of specific industrial regions where industries of the same activity are conglomerated together. This would raise productivity through enhancing competitiveness, facilitating the foundation of R&D centers, encouraging training programs, and by the presence of banks and financial institutions.
- Development of textile industries.
- Effective application of duty drawback and temporary admission systems.

If the skills and productivity of the labor force are not growing fast, implementing the suggested export strategy will be at the expense of reducing real wages.

for two reasons. Firstly, the private manufacturing sector is taking the lead in the industrialization process of Egypt with a share that had reached two-thirds by 1996/97. Secondly, aside from sectors with a high-resource-base (basic metals and chemicals), the contribution of private manufacturing to total manufactured exports is about 80 per cent or more of all manufacturing activities.

According to the Family Budget Survey of 1996, about 42 per cent of workers in the manufacturing sector in Egypt are below the poverty line. A household is considered poor in Egypt with a daily income of about LE15/day. Figure (3.4) shows the distribution of daily wages of employees in the private sector, as revealed by the Enterprise Sample Survey of 1998, and the Labor Sample Survey of 1998. It is interesting to note that in figure (3.4) while the median is almost LE8, the average wage is up to LE34.6.

To compete in international markets through a cost reduction strategy, manufacturing firms should be able to continuously reduce the unit labor cost. Given the very low labor productivity of manufacturing employees in Egypt, this strategy would suppress wages and exacerbate the poverty problem.

To compete in international markets through a cost reduction strategy, manufacturing firms should be able to continuously reduce the unit labor cost.

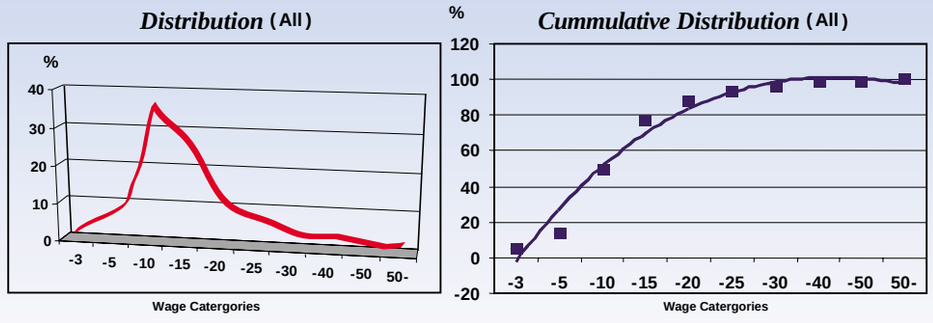
Globalization and Prospects of Egypt's Industrial Sector

The aforementioned analysis pinpoints some of the features of the manufacturing sector in Egypt and shows their trade implications. It is clear that the sector suffers from many problems that are reflected in its weak performance in the context of international trade. Building an export promotion program on a cost reduction strategy will negatively affect the level of welfare of workers in the manufacturing sector unless the program is preceded by a modernization plan which targets higher productivity?

Some firms in the manufacturing sector suffer from obsolete technology. But this is not the core problem of the sector. One of the striking findings of the present analysis is the dichotomy between the industrial structure and that of exports. This makes industry in Egypt a good representative example of the consequences of the discrepancy between the level of technology in machinery and the level of knowledge in labor skills. Assembling industries in Egypt are the industries that can compete least internationally, or even in the local market if it is not highly protected. Their unit labor cost is one of the highest in the world, despite the fact that they have acquired very modern technology.

The history of the evolution of industry indicates that the first step to establish an industrial complex system stems from the desire of the industrial unit, on the micro level, to increase its efficiency in using economic resources. Therefore, the first step in modernization should focus on the micro level. Parallel to this, the creation of an effective innovation system is crucial. Learning must be institutionalized. The link between scientific bodies, laboratories, universities, and technology centers, with the

Figure 3.4
RELATION BETWEEN WAGE AND PRODUCTIVITY



knowledge-building process at the firm level, is essential to sustain the process of knowledge upgrading at the micro-level. In other words, modernization depends on the success of creating a mechanism to generate the learning process within firms on the one hand, and on linking the acquisition of technology and its diffusion with educational and training programs on the other.

The performance of firms is path-dependent. The process of developing industrial capabilities needs time. And because the time dimension is of the essence, it is crucial for the government to intervene in a way that accelerates this process. Government actions are indispensable to implementing a national innovation system, to guide firms in how to acquire technology, and to support scientific bodies and educational organizations to provide firms with a continuous stream of technology, information, and knowledge.

This modernization is the only way to enhance productivity and to enable the industrial sector to compete in labor - intensive products under globalization. Following this, with the mastering of technology over time, the economy would be able to compete in differentiated labor-intensive products.

Labor-intensive exports are the major field of specialization for Egypt, now and for many years to come. Targeting a mere increase of these exports would negatively affect economic welfare. To raise national income and economic welfare, building competitiveness for this type of export is essential. In order to benefit from globalization, Egypt has no other alternative but to accelerate the process of structuring its national innovation system and speeding up the evolution of knowledge capacities to achieve the shift from 'learning by doing' to 'learning by research'.

Modernization is the only way to enhance productivity and to enable the industrial sector to compete in labor-intensive products under globalization.

Strengthening the Financial Sector

The growing importance of financial sector reform in the context of rapid globalization together with the international financial turmoil of the second half of the 1990s, triggered thinking in the area of how to strengthen the global financial system (See Box 3.5). There is international understanding among concerned bodies that there is a pressing need for much stronger

Box (3.5)
Financial Crises of the Late 1990s

The origins of the Asian crisis can be found in financial and corporate sector weakness, macroeconomic vulnerabilities together with formal and informal currency pegs, and the artificial stability of exchange rates. Among financial sector vulnerabilities, analysts concentrated on the deterioration of bank loan values and capital adequacy ratios, the build-up of corporate indebtedness, and unsustainable banking practices (such as directed, connected, and insider lending). This was coupled with a weakness in the supervision of financial institutions and the absence of prudent regulations, coupled with a weakness in bank and corporate governance and accounting standards (such as loan valuations and disclosure practices).

In the aftermath, the aim of policy makers was to stabilize the financial system and to restore confidence in economic management. The priorities of the authorities were set in the following sequence: (i) to stop bank runs; (ii) to protect the payment system; (iii) to limit the central banks liquidity support; (iv) to minimize disruption to credit flows; (v) to maintain monetary control; and (vi) to stem capital outflows.

The negative social impact of the Asian crisis has been enormous. Human capital costs either resulting from the additional unemployment or loss of jobs resulting from the recession or from the reduction of the public expenditures on social development projects left a negative impact on the quality of life at the time of the crisis or in the aftermath.

In recent research that addressed the social impact and consequences of the financial crisis in Thailand, Indonesia and Korea, it was found that the loss of employment has brought about a loss of income, which has affected expenditure on health and education. Without governmental programs to provide relief through short-term employment assistance, public-works type activities and unemployment benefits, the impact of the crisis on people would have been harder.

International capital movements and financial volatility can play a role in destabilizing the economy concerned.

surveillance over financial markets. Recently, numerous initiatives have emerged to reshape the global financial architecture. The aim of the recent initiatives is to assess the vulnerabilities of national financial sectors and the international financial markets, to support the strengthening of national and international financial systems and to lessen the likelihood of crises or to reduce their severity should they occur.

For emerging financial markets to avoid crises, the lessons extracted from other experiences should be carefully studied (see Box 3.6), internal economic policies and practices should be analyzed, and an early warning system to protect domestic financial systems introduced. National and international bodies responsible for monitoring the stability of financial systems should pool resources and experiences towards this common aim. In the remaining part of this chapter we shall deal with the global financial architecture, the external pressures facing the Egyptian economy since 1997/98, and suggested measures to mitigate financial vulnerability.

Global Financial Architecture: What to Do?

In the last twenty years or so almost all countries throughout the world have experienced major episodes of financial instability, sometimes with devastating effects on economic activity, as was the case in the recent financial crises in Asia. At the same time we have seen increasing liberalization of financial systems through the lowering of barriers to capital flows and a greater role played by the financial markets. Linking these developments together has led to increasing concern over international capital movements and financial volatility that could be harmful to the economy.

With a careful analysis based on asymmetric information, it can be seen that international capital movements and financial volatility can play a role in destabilizing the economy concerned. However, their role is frequently overstated. Thus, there is a danger that in trying to avoid financial instability, policy makers will pay too much attention to international capital movements rather than to deeper fundamentals.

Box (3.6)
Lessons Derived from the Asian Crisis

Economists and other policy analysts interested in analyzing the Asian crises have made the following recommendations:

- The most important lesson to be learned from the Asian crisis is the link between financial sector soundness and macroeconomic stability. The latter should be based upon good fundamentals, transparency and disclosure. The former should always be monitored and supported by rules and prudential regulations, transparency and bank/corporate governance.
- Short-term foreign currency debt and capital inflows together with formally or informally pegged and artificially stable exchange rates may lull investors into ignoring currency risks. It is also dangerous for governments and central banks to think that such short-term flows are signs of international confidence in the performance and health of the economy, while closing their eyes to other signs of internal vulnerability.
- It is essential to develop capital inflow and counter-policies. Such policies must include limiting short-term borrowing, encouraging foreign direct investment inflows, relying more on equity to prevent the corporate sector from building up large un-hedged foreign exchange exposures, developing capital markets in order to reduce corporate leverage and improving corporate governance. Sterilizing [meaning?] capital inflows and hedging for such inflows, together with reducing the corporate sector dependence on foreign financing should always be a policy target in emerging markets.
- It is also important to develop prudent and more supportive counter-cyclical macroeconomic policies, especially in economies that might face recession or slow down in their economic development paths or those who face currency or balance of payment problems. The net worth of banks should be built up in times of economic boom to provide a cushion in times of economic bust. Early warning systems must be put into action.

Gone are the old days when a regulator felt that he did his job once he had translated international standards of supervision and regulation, and added some local ingredients and flavors. Quality of supervision does matter, a credit culture should be established, and corporate structure and governance is of crucial importance.

Despite the numerous proposals that have been put forward to establish a 'new' global financial architecture, so far little progress has been made. The debacle in Seattle and the growing anti-globalization (and anti - capitalist) movement demonstrate that these proposals have hardly gained ground. It may be the case that the developed countries see no value in revolutionizing the international system. In the international financial environment, the G7 currently put an emphasis on three issues: more market-sensitive risk management; stronger prudential standards; and improved information disclosure and transparency, in a way to equip the markets to reward good behavior and penalize bad.

External Pressures on the Egyptian Economy Since 1997/98

The relatively strong economic fundamentals resulting from the ERSAP helped Egypt lessen the impact of the financial crises that faced some other emerging markets in 1997 - 1998. Nevertheless, by the end of the decade, the Egyptian economy faced some unfavorable conditions. This was partly due to the accumulation of external pressures, and the internal economic policies that were applied to overcome their impact. The outcome of these pressures resulted in a deterioration of the external position that was reflected in a slower pace of real GDP growth rates.

During the three years 1997/98-1999/2000, the accumulated overall deficit of the balance of payments reached US$10.4 billion. This deficit was financed either by official international reserves, which declined by US$5.3 billion (or 51 per cent of the accumulated deficit) and reduced net international reserves (NIR) to US$ 15.13 billion by the end of June 2000, or by the decline of the net foreign assets (NFA) of the banks by about US$ 5.1 billion (or about 49 per cent of the accumulated deficit). This decline in the banks' NFA raised concerns regarding the future of the exchange rate while the deterioration of the NIR raised other concerns and expectations.

Pressures started with a limited outflow of portfolio investments in 1997/98, coupled with a decline in tourism income, and intensified by the deterioration of international oil prices. This has negatively affected the country's overall balance of payments position.

The decline of international oil prices severely hit Egypt's oil exports receipts, which declined from US$2.6 billion in 1996/97 to about US$1 billion in 1998/99. This decline represented around 61.5 per cent of the revenues from oil and gas exports of the previous year. Although the downward trend of oil prices has been reversed since early 1999, the Egyptian oil trade balance changed to show a deficit, for the first time, in 1998/99. This deficit continued during 1999/2000. The continuation of the trade deficit after the surge of international oil prices indicated that there is a structural problem in the oil sector (see Table 3.16).

The relatively strong economic fundamentals resulting from the ERSAP helped Egypt lessen the impact of the financial crises that faced some other emerging markets in 1997-1998.

Table (3.16)
Major External Sector Indicators:

In US $ Million

	1995/96	1996/97	1997/98	1998/99	1999/00*
Total Imports (c.i.f.)	14107	15565	16899	17008	17861
Imports Groth Rate%	10.12	10.34	8.57	0.65	5.02
Trade Balance	**- 9498.4**	**-10219.4**	**-11770.6**	**-12652.5**	**-11473.7**
Oil export price (US$/barrel)	15.7	17.8	15.6	9.7	17.3
Oil & Gas exports	2225.6	2577.8	1728.4	999.7	2272.9
Oil & Gas Imports**	-853.8	-1395.8	-1389.8	-1137.2	-2387.8
Oil Trade Balance ($ million)	1371.8	1182.0	338.6	- 137.5	-114.9
Oil exports/total exports, f.o.b.	48.3%	48.2%	33.7%	22.5%	35.6%
Travel reccipts	3009	3646	2941	3235	4314
Tourists nights (million)	22.9	26.0	21.5	25.7	34.0
Current Account Balance	**-185**	**118.6**	**-2478.6**	**-1723.8**	**-1170.5**
Net Prtfolio Investment.	257.6	1462.9	-248	-173.6	472.6
Net FDI	626.9	769.7	1103.9	710.6	1656.1
Increase(+)/decrease(—)in banking assets	-1148.7	377.1	-1672.2	-2125.6	198.2
Increase (—)/Decrease (+) in banking liabilities	161.3	-1245.0	-1783.5	-346.6	650.7
Changes in Net Foreign Assets of banks	-987.4	-867.9	-3455.7	-2472.2	848.9
Capital & Financial Account	**1017.3**	**2040.7**	**3386.9**	**918.6**	**-974.1**
Net Errors and omissions	**-261.3**	**-247.0**	**-1043.3**	**-1311.5**	**-880.1**
Overall Balance including banks	**570.6**	**1912.3**	**-135.0**	**-2116.7**	**-3024.7**
Overall Balance excluding banks	**-416.8**	**1004.4**	**-3590.7**	**-4588.9**	**-2175.8**
Financing: Increase (—)/Decrease (+) in NFA of banks & changes in GIR.	416.8	-1004.4	3590.7	4588.9	2175.8
Increase (—)/Decrease (+) in GIR	-570.6	-1912.3	135.0	2116.7	3024.7
Increase (—)/Decrease (+) in NFA of banks	987.4	867.9	3455.7	2472.2	-848.9

* Provisional
**Including oil product imports and foreign investors share in production

Although Egypt's capital and financial account has always compensated the structural deficit of the Egyptian current account, its balance of payments deterioration started in 1998/99. While FDI continued to contribute positively to the balance of the capital and financial account during the period 1996/97-1999/2000, the privatization of cement companies during 1999/2000 contributed significantly to the flow of this FDI.

Net changes of other assets are the outcome of changes in the non-reserve assets and liabilities of the CBE, changes in the NFA of the banks, and changes in other assets. It is important to focus on changes in the NFA of the banks to analyze the impact on Egypt's external position. The net decrease in banks' FA during the period 1995/96-1998/99 reached US$ 4569.4 million. On the other hand, the net increase in the banks' liabilities during the same period reached US$ 3213.8 million. These changes in the NFA of banks amounted to a deterioration of about US$ 7.8 billion, which raised concerns regarding the future of the exchange rate and the ability of banks to meet foreign obligations.

Mitigating Financial Vulnerability

As shown above, the Egyptian economy managed to enjoy positive trends in its performance until its exposure to three major shocks within 6 months starting mid-1997. It is normal for a small open economy to be exposed and affected by external shocks, and does not necessarily imply vulnerability. There is a set of selected indicators that can be used to investigate the likely vulnerability of an economy (see Table 3.17).

Table (3.17)
Selected Indicators of Vulnerabilities.
(Period ended December 1996)

	Indonesia	Korea	Malaysia	Philippiens	Thailand
Macro Indicators					*
Inflation > 5%	*			*	
Fiscal deficit > 2% of GDP					
Public debt > 50% of GDP				*	
Current account deficit > 5% of GDP					*
Short-term flows (net portfolio & other investment) > 50% current account deficit	*	*	*	*	*
Capital inflows > 5% of GDP		*	*	*	*
Ratio of short-term debt to international reserves > 1	*	*			*
Financial Sector Indicator					
Recent financial sector liberalization	*	*		*	*
Recent capital account liberalization		*			
Credit to private sector > 100% of GDP		*	*	*	*
Credit to private sector, real growth > 20%			*		
Emphasis on collateral when making loans	*	*	*		
Estimated share of bank lending to the real estate sector > 20%	*	*	*		*
Stock of nonperforming loans > 10% of total loans					
Stock market capitalization (% of GDP)	40	30	310	98	56

Nonetheless, it is within the realm of economic management and governance that controlling for the degree of exposure matters most. After all, it is the responsibility of this management to deal with these shocks in order to minimize their negative consequences, while at the same time maximizing the benefits. This calls for:

External position strengthening. Defending a fixed exchange rate is not the only option available for policy makers. Market pressure should not be absorbed by using NIR without allowing for reflection on the exchange rate. Fixing the exchange rate of the Egyptian pound should not be a goal in itself since most of the countries that defended the fixed rate using their international foreign exchange reserves were faced with currency attacks and speculative demand. Moving towards a more liberal exchange rate policy will help: reduce the local demand for dollarization of deposits, the dedollarization of loans; and will reduce expectations for further devaluation. It will also create confidence that the economic policies adopted by the authorities are more market oriented. Timely actions are always recommended.

To increase the earnings of the economy, the authorities should work on attracting FDI through the privatization of publicly owned enterprises and allowing foreign financing for public investment projects. Some foreign concessional borrowing might be helpful in the present stage to continue the development efforts, without adding more pressure on local financing.

To avoid the tendency to increase short-term borrowing by banks and corporations, the CBE should work on restricting the ability of banks to increase

short-term liabilities in foreign currencies. This can be done either by applying higher reserve ratios on bank liquid liabilities denominated in foreign currencies owed either to locals or to foreigners, or to set a targeted growth rate for bank short-term foreign liabilities.

In managing the country's foreign debt, monitoring private sector borrowing and short-term obligations is an important policy objective at all times. Introducing legislation to monitor corporate borrowing is a good tool for hedging sources and uses in foreign currencies.

The long-term solution to balance of payment problems lies in the ability to control the growth rate of imports and to enhance the opportunities for more exports.

Controlling Monetary Aggregates. The

Annex Tables

Table (3A.1)
The Plan of Agricultural Horizontal Land Expansion up to the year 2017

Region	Total Area	Area Irrigated	Area to be irrigated by 2017	
			Area	% of Total
Eastern Delta	464	106	358	77.1
Middle Delta	122	49	73	59.84
Western Delta	348	64.5	238.5	68.53
Sinai	724	23.5	700.5	96.75
Misr El Wasta	88.8	11	77.8	87.61
Upper Egypt	531.5	50	481.5	90.59
El Wahaat	252	55.7	196.3	77.9
South ov Valley	868.5	4	864.5	99.54
Total	**3398.8**	**363.7**	**3035.1**	**89.3**

Table (3A.2)
Water Requirements and Water Resources Available in 2017

Requirements	1997 billion cubic meters	2017 billion cubic meters
Agriculture	52.13	67.13
Evaporation	2.10	2.3
Civil uses	4.54	6.6
Industry	7.42	10.57
Navigation	0.15	0.15
Total	**66.34**	**86.74**
Water available from Nile	55.50	55.5
Jongly Canal	-	2.00
Underground water in the Delta & Valley	4.80	7.50
Recycling drainage water	4.90	8.40
Reducing water lost to sea	0.15	
Management of cropping pattern	-	3.0
Saving water by irrigation management	0.15	4
Underground aquifer in deserts	0.57	3.77
Treated sewage water	0.20	2.0
Rain on the North Coast	1.00	1.50
Total	**67.27**	**87.67**

expansion of domestic credit could create many shortfalls in the banking sector. Also, increasing government debts to the banking sector might cause other problems, not only to banks, but also to macroeconomic performance in general. Although the economy is facing a slowdown in economic activities, it is argued that counter-cyclical monetary policy might help in developing countries. For that reason, a temporary tight monetary policy with higher interest rates might ease the pressure on the external position. However, this has a negative impact on the growth of the real sector. The CBE is also required to focus on introducing more measures that target not only a better quality of bank lending but also decreasing the cost of lending. Controlling private sector credit growth rates and government borrowing is also important in the authorities' efforts to control inflation.

In addition, a continuous and close management of bank reserves is essential during the coming period. Reporting operations should be used on an overnight, in addition to weekly, basis to control bank liquidity. The CBE should be able to possess tradable financial instruments to enable it to perform open market operations that help achieve the stability of the financial system.

Fiscal Policy Options. Expansionary fiscal policy is recommended during recessions. Investment expenditure on projects and public works can be financed by concessionary foreign borrowing, as long as the overall external debt does not exceed safe limits. Counter-cyclical fiscal policy is also a viable policy option.

Inflation Avoidance. Fiscal deficit financing should not reflect itself in M2 and reserve money growth rates. Financing the targeted deficit should come from domestic savings, in addition to the external financing mentioned above, to avoid inflationary pressures. A moderate rate of inflation might help private sector earnings and might, accordingly, enhance performance. The depreciation of the exchange rate of the Egyptian pound on is expected to impact on inflation since the value of imports exceeds export earnings.

Strengthening the Financial Sector. There is a need for bank restructuring. This can be done by encouraging mergers and acquisitions and by increasing the minimum capital requirements of the banking sector. The latter should be introduced for a limited period of time.

Strengthening CBE supervision over banks is essential at all times. CBE institutional capacity must be reviewed to increase its inspection capacity and surveillance over the banking sector. Measures could include: increasing the number and quality of staff of the supervisory department; increasing the frequency of on-site inspections; off-site supervision enhancement by automation; working on line with banks; and enhancing reporting system quality and frequency. There may be a need for law amendment to enforce the quality and responsibility of reporters. It is essential to introduce early warning system indicators. Reducing the act of forbearance and strengthening the information base by means of disclosure and transparency is a cornerstone for a better banking sector in Egypt.

The creation of supporting agencies responsible for collecting information, valuation of assets, and for financial advisory services is important as a necessary mechanism for the better functioning of the banking sector.

From the policy perspective, protecting deposits (via enforcing the articles of the banking law to introduce the deposit insurance system) and the creation of a policy to avoid risky credit expansion (asset/liability management, avoiding maturity mismatching, and reducing the cap on lending to a single customer, currently set at 30%) are essential.

In addition to the above, it is important to create a market for long-term bank investments. This can be done by issuing government LT treasury bonds, freeing interest rates on government treasury bills and introducing a primary dealers system. These actions might also help, indirectly, in controlling the growth of lending rates.

Strengthening the Egyptian financial sector is a priority for policy makers before deeper integration into the global financial system becomes unavoidable.

Controlling private sector credit growth rates and government borrowing is also important in the authorities' efforts to control inflation.

Strengthening the Egyptian financial sector is a priority for policy makers before deeper integration into the global financial system becomes unavoidable.

Chapter Four

The Environment and Sustainable Development

It is generally accepted that globalization will increasingly affect the environment around the world.

Ideas and concepts, culture and society, capital and finance – together, these provide the elements according to which space can be organized and environments created. They set the conditions within which planners work to produce an environment conducive to sustainable human development. The intellectual challenge is to construct a conceptual framework that is clear and consistent, and able to clearly pimpoint the issues and goals, so that decision-making in the planning and development process is predicated on a sound understanding. The impact of increasing globalization on the Egyptian environment, with respect to Egypt's spatial, material, and human resources is a question that relates directly to planning success or failure. What is the role of planners, both urban and rural, given the potential impact of globalization? And here, it is important to differentiate between the production and consumption processes in which individuals and organizations are engaged, and the contexts and structures in which these processes take place.

Impact of Global Environmental Issues on Egypt

The Nile Delta is threatened with rising sea levels due to the melting of polar ice caps.

It is generally accepted that globalization will increasingly affect the environment around the world. How will these changes impact on Egypt? This section will discuss three major areas of concern: climate change; ozone layer depletion; and some aspects of biodiversity.

Climate Change

Climate change is potentially a most serious environmental threat to human survival. It can cause a variety of major alterations in climatic behaviour, including changes in precipitation patterns, wind currents and storms; it can elevate temperatures and raise sea levels, and it can contribute to the spread of disease.

Increased emissions of greenhouse gases (GHG) such as carbon dioxide, methane, and nitrous oxide, have the ability to absorb heat emanating from the Earth to the atmosphere, and are among some of the elements responsible for climate change. Carbon dioxide emissions come mainly from the consumption of fossil fuels. Deforestation and land-use changes also increase carbon dioxide levels in the atmosphere. The evidence shows that the pre-industrial concentration of carbon dioxide in the atmosphere was 280 particles per million, and that this has now risen to about 358 particles per million.

Egypt's current emission rates are considered moderate (about one metric ton per capita in 1996) compared to the USA and Australia (15 metric tons per capita for the same year). Industrial nations such as these and also oil producing countries such as Saudi Arabia, resist the idea of changing fossil fuel consumption patterns to reduce carbon dioxide emissions. But while most carbon dioxide emissions originate in the developed countries, the consequences of climate change would touch all the countries of the world. Unfortunately, the effects are likely to hit poor countries harder than rich ones. Taking Egypt as an example, the Nile Delta is threatened with rising sea levels due to the melting of polar ice caps. Various scenarios estimate that one third of the Delta will be inundated if the sea level rises by 0.5-1.00 meters. Additionally, seawater will seep into the remaining parts of the Delta and cause salinization of its soils. Even more alarming are the changes predicted for the hydrological regime of the Nile, which could contribute to desertification and drought.

An equally serious threat associated with climate change is the expected surge in diseases as the Earth's atmosphere heats up. More floods and droughts create the conditions necessary for the spread of infectious

diseases. For Egypt, lethal malaria could be transmitted from the Sudan to the governorates of Aswan and Qena as a result of the migration of this mosquito-borne disease which breaks out in hot weather. Similarly, agricultural pests from the Sudan will migrate to southern Egypt, and possibly to the Delta, if global warming continues to increase.

Ozone Layer

The ozone layer is vital for life on planet Earth (see Box 4.1), and a consensus has emerged that its protection is a global mission. The depletion of this layer is viewed as a major threat from the globalization process, but its protection entails costs that will burden the developing economies.

While the depletion of the ozone layer is almost entirely the outcome of the industrialization and development of advanced societies, developing countries have to pay a large part of the cost and to rely on cleaner production technology, as part of their "responsibility" to the international community. This puts financial burdens on developing economies such as Egypt which have to abide by international conventions. Egypt is committed to the objective of decreasing ozone depletion, as manifested in its signature of the various international agreements such as the Vienna Convention and Montreal Protocol (1998).

Biodiversity

Biodiversity means variability among living organisms. It is important to maintain because it can directly and indirectly influence the structure and functioning of an ecosystem. In September 1989, the World Resource Institute (WRI), World Conservation Union (WCU) and the United Nations Environment Programme (UNEP) developed a program to prevent the

After the liberalization measures, increased employment opportunities were opened to the labor force as an outcome of agricultural intensification.

Box (4.1)
Earth Layers and Ozone

The atmosphere of the Earth consists of several layers. The lowest is 10 kilometers in altitude and is called the troposphere and this is where virtually all human activities occur. The next layer is called the stratosphere and it continues from 10 km to 50 km. Most commercial air traffic occurs in the lower part of the stratosphere and most atmospheric ozone is concentrated about 15-30 km above the surface of the Earth. Normal oxygen, which we breathe, has two oxygen atoms and is colorless and odorless. Ozone is a molecule containing three oxygen atoms, blue in color and has a strong odor. Out of every 10 million air molecules, around 2 million are normal oxygen, but only three molecules are ozone. However, even this small amount of ozone plays a key role in the atmosphere. The ozone layer absorbs a portion of the radiation from the sun preventing it from reaching the planet's surface. It absorbs the portion of ultraviolet light called UVB, which has been linked to harmful effects including various types of skin cancer, cataracts, and harm to some crops, some materials and forms of marine life, such as coral reefs. Recently, convincing scientific evidence has shown that the ozone shield is being depleted well beyond changes due to natural processes. Use of Chlorofluorocarbons (CFC) as refrigerant, solvents and foam blowing agents, other chlorine containing compounds, halons (extremely effective fire extinguishing agents) and methyl bromide (effective produce and soil fumigant) contribute greatly to ozone depletion. All of these compounds have an atmospheric lifetime long enough to allow them to be transported by winds into the stratosphere. They release chlorine or bromine when they break down. One chlorine atom can destroy over 100,000 ozone molecules. The net effect is to destroy ozone faster than it is naturally created. Experiments have shown that the mentioned chemicals produce roughly 85 per cent of the chlorine in the stratosphere, while natural sources contribute only 15 per cent, indicating that the larger effect on ozone depletion is caused by human activities.

Many of Egypt's important and unique habitats are not represented in the nation's Protected Area Network.

destruction of the world's biodiversity (see Box 4.2).

For several reasons, biodiversity in Egypt is threatened, and our natural heritage is at risk. Egypt lacks sustainable and effective systems to address natural heritage management issues and has limited national capacity in the field of nature conservation, which is hampering the nation's ability to conserve and manage its unique and critical resources. The Ministry of Environmental Affairs (MEA) and its affiliates, especially the Egyptian Environmental Affairs Agency (EEAA), still have to establish an appropriate institutional structure for conserving biodiversity according to their mandate outlined under Law 102/1983, Law 4/1994 and international treaties for conserving nature.

Many of Egypt's important and unique habitats are not represented in the nation's Protected Area Network (see Box 4.3). Also, most protected areas which have been identified and designated under Law 102/1983 are still lacking proper management and infrastructure. Despite a large body of information on Egypt's natural heritage, crucial data is still lacking or information has become outmoded in certain fields. Egypt also lacks sufficient funds and facilities necessary to undertake biodiversity studies and research. There is still insufficient coordination between all concerned parties for data collection, storage and analysis of biodiversity, habitat/ landscape diversity, and other natural heritage resources. This also applies to wildlife, wetlands and the marine environment.

Wildlife. Wildlife preservation for the most part is unregulated in Egypt and excessive numbers of wild animals are being hunted. Over-hunting and fishing has depleted the populations of many species, with some species on the verge of extinction. A comprehensive system for managing hunting in Egypt exists but is not strictly enforced. Many organizations have responsibilities for hunting management, with overlapping roles and insufficient coordination between the various bodies. Egypt also lacks sufficient trained personnel, facilities and other resources necessary to regulate hunting and fishing. Little revenue is generated from regulating hunting and the funds raised are not ploughed back into the management and protection of wildlife and its habitats.

Wetlands. The Nile provides the nation with nearly all of its water resources. The Nile and the lakes also provide the country with fisheries. In addition, Egyptian wetlands are among the richest ecosystems in the country in biodiversity, and are considered internationally important staging, wintering and breeding areas for water birds. Nonetheless they are subject to a variety of human threats, which could lead to their degradation. The northern lakes have been substantially reduced in size. Nearly all wetlands in Egypt are polluted with industrial, domestic and agricultural drainage water not only leading to changes in the ecology of the lakes, but also causing health problems in surrounding communities, economic loss and, eventually, social problems. Over-fishing and hunting is also prevalent in most wetlands. While these problems have received national and international attention, insufficient action has been taken for the regeneration, management and preservation of the wetlands and their resources.

Box (4.2)
The Global Biodiversity Strategy

This strategy adopted by WRI, WCU and UNEP calls for:

1. Catalyzing action through international corporations and national planning.
2. Establishing a national framework for biodiversity conservation.
3. Creating an international environment policy that supports national biodiversity conservation.
4. Creating conditions and incentives for local biodiversity conservation.
5. Managing biodiversity throughout the human environment.
6. Strengthening protected areas.
7. Conserving species, populations and genetic biodiversity.
8. Expanding human capacity to conserve biodiversity.

Marine Environment. The Egyptian marine environment is one of the nation's most important natural resources. However, it is haphazardly managed and is developing in an uncoordinated manner. This is leading to rapid degradation of the country's marine and coastal resources, jeopardizing future sustainable returns from them. In addition, there is neither evidence of strong management of fisheries (both commercial and sport), or appropriate control over the pharmaceutical and research bodies that exploit marine resources, such as soft corals and invertebrates.

Environmental Degradation and Per Capita Income

Sustainable development implies policies and instruments that develop economic resources to satisfy the needs of existing generations without compromising the ability of the economic system to meet the needs of future generations. Sustainable development is achieved when an economy is on a time path where future generations have economic opportunities that are at least as large as earlier generations.

It is feared that current economic development, while leading to the accumulation of physical and human capital, exhausts the world's stock of natural capital. If a balance is not maintained, the outcome will impact negatively on the welfare of future generations. It is for this basic reason that environmental resources and ecological services are essential, and cannot be easily substituted by human and physical capital. One way to estimate overall cost/benefits is application of the The United Nations System of National Accounts (SNA), which suggests the depreciation and user-cost approaches for measuring depletion allowances for non-renewable natural resources (see Annex 4.1).

The Environmental Kuznets Curve (Figure 4.1) suggests an inverted U-shaped relationship between environmental degradation and the levels of per capita income. The turning point of the curve is where environmental degradation starts to decrease with the increase in per capita income (approximately beyond US $4,500). This turning point in the curve is very high, and overall Egypt has not yet reached the levels of per capita income at which environmental improvements are likely to happen.

The Egyptian marine environment is one of the nation's most important natural resources.

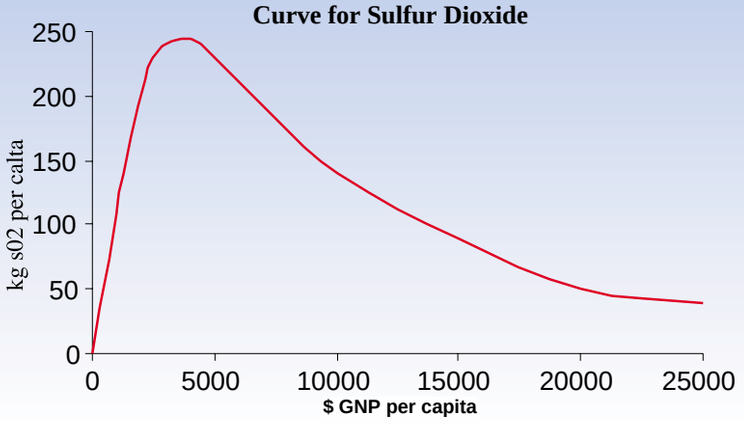
Box (4.3)

The Desert Environment: Resource for the Future

While about 95 per cent of the Egyptian territories are desert, there is little awareness and appreciation of this important national resource. Egypt's deserts have significant reserves of oil, gas, minerals and other non-renewable natural resources. The desert is also rich in biodiversity harboring restricted range and globally threatened species. This vast wilderness area with its spectacular scenery and numerous cultural heritage sites is becoming an increasingly important resource for tourism. Only a small percentage of the population resides in the desert. However, vast areas of the desert regions are coming under threat as a result of rapid and inappropriate development. Many areas are being destroyed and degraded as a consequence of uncontrolled tourism, land reclamation, quarrying and solid waste dumping. Over-grazing and collection of vegetation is a problem in most rangeland threatening the livelihood of the local population.

Nature-based tourism is a rapidly growing market in Egypt, particularly in South Sinai, the Red Sea and the Western Desert. This economic activity is closely related to globalization and links to the global economy, and has a direct impact on the country's biological and natural resources. It is estimated that 12 per cent of all tourism in Egypt is directed to the Red Sea alone and this share is growing. Insufficient regulation of marine tourism and lack of adequate infrastructure is damaging the natural resources that attract tourists, in particular the coral reefs. There continues to be low awareness and appreciation of marine conservation and Ecotourism in the business community and the general public. Desert (safari) tourism is also a fast growing activity in Egypt. At present most desert safari tours in Egypt are not ecologically sound, causing the destruction and degradation of natural habitats, landscapes, cultural heritage sites and other resources.

Figure 4.1: An Environmental Kuznets Curve for Sulfur Dioxide



The growth process could affect the sustainability of the environment.

Effect of Growth on Environmental Sustainability

The growth process could affect the sustainability of the environment. This will be shown through four aspects namely, pattern of industrialization, energy consumption, agriculture, and tourism.

The Pattern of Industrialization

Globalization tends to favor large-scale industries that use advanced technologies. Developing countries, including Egypt, fear that open markets and competition might destroy national industries due to their inability to compete with the quality and productivity of industries in developed countries. Another threat is that global demand for certain industrial products might give a comparative edge to some developing countries, and that the profit motive be given priority over the environment and preservation of resources (see Box 4.4).

Energy Consumption

Global energy use has increased by over 70 per cent in the past twenty-five years, and is expected to grow by another 50 per cent by 2010. This will definitely contribute to climate change since industrial countries have adopted a "business as usual" scenario at the last meeting on climate change held in the Hague, in November 2000. Developed countries consume about two thirds of global energy supplies, while developing countries about 33 per cent.

In Egypt, the total production of primary energy was about 60 million Tons of Oil Equivalent (TOE) in 1996 and 58.5 million TOE in 1997, of which about 93 per cent originate from petroleum. The industrial sector is the main energy consumer in Egypt. It accounts for 48.8 per cent of total energy consumption. It is followed by the transportation sector at 29.15 per cent, and households and commercial activities at 18.4 per cent (see Figure 4.2.). Egypt has been experiencing improvements in energy utilization and efficiency and is also pursuing a number of cleaner production measures through a number of environmental projects. One of these is the Support for Environmental Assessment and Management (SEAM) project.

The use of cleaner energy is a key goal for

Box (4.4)
The Cement Industry and Pollution

Although the cement industry has a negative environmental impact, it is an important industry in Egypt. Shares in cement industry companies account for 10 per cent of the stock market. Recently, this industry has undergone a process of privatization in an attempt to improve its productivity and financial situation. A number of public sector companies were sold to TNCs. These corporations were after low production costs, and the relatively low cost of meeting environmental regulations in Egypt as opposed to Europe. Ultimately, they were after profit and most probably will increase their capacities. In turn, this is likely to increase the pollution produced by this industry.

More factories mean more harmful emissions, leading to the deterioration of air quality, especially where factories are close to urban areas. This will also mean more waste products for disposal. If these factories are close to cultivated land, crops may become polluted, unsafe, suffer lower sales or less exports. It is the role of the government of Egypt to control industrial expansion in a way that is safest for the environment, without threatening the process of capital accumulation. Under no circumstances should economic concerns outweigh ecological ones, since the long-term losses will be by far greater.

Egypt. Considering that Egypt has, on average, 3500 hours of sunshine every year, solar energy is an important resource that should be considered. Wind energy is also possible in areas where wind speed ranges between 20 and 30 km/hr (and is already applied in Hurgada and Eastern Al-Owainat). The use of natural gas as a 'cleaner' energy source is encouraged in various industries to control pollution caused by other types of fossil fuels, especially the commonly used diesel.

Figure 4.2: Pattern of Energy Consumption in Egypt 1997/98

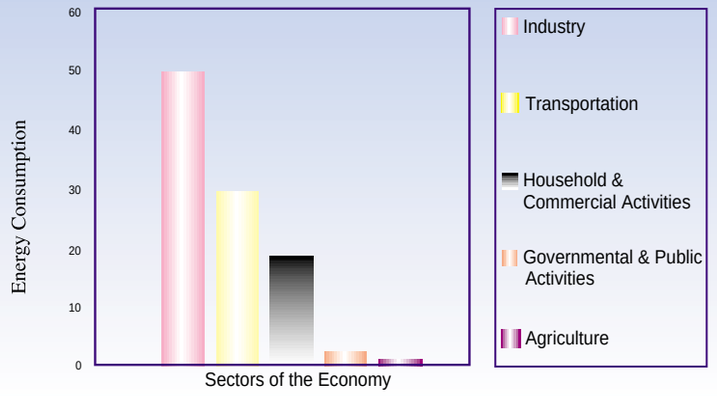
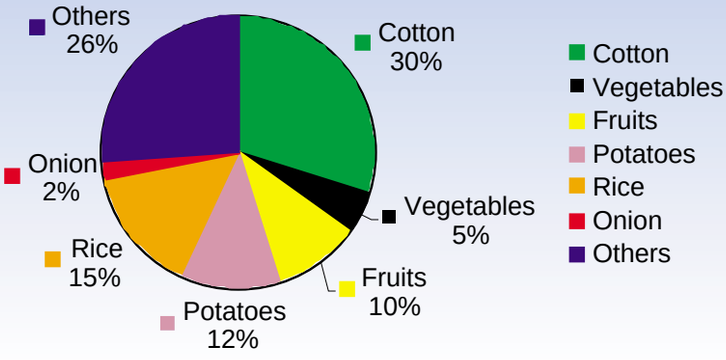


Figure 4.3: Major Agricultural Products, 1992-97



Agriculture

Scarcity of fresh water and fertile soil for agricultural production are two of the major problems that face the Egyptian economy. The gap between agricultural production and the growing population is expected to increase in the coming twenty years. Thus, the government has adopted new projects and plans to fully utilize available land resources in an attempt to achieve the highest possible growth rate derived from the agricultural sector. This by cultivating high value agricultural products that meet global specifications. These products (Figure 4.3) could be exported and the revenues used to support the import of strategic products. Government policies towards a better agricultural environment include controlling and reducing the amount of fertilizers, pesticides, and other added chemicals used. Price changes discourage the excessive use of chemical fertilizers and pesticides. New types of fertilizers and pesticides that contain less harmful chemicals for the environment are to be introduced and farmers will be encouraged to use them. According to the profile of initiatives for year 1998/99 published by the Ministry of State for Environmental Affairs, pesticide use has been slashed from 34,000 tons a year to 4,000 tons a year. The government is also encouraging large new land reclamation projects in Toushki and the Western and Eastern Delta areas. This will, however, put pressure on available fresh water resources. The question is whether the opportunity cost to the exploited and/or polluted natural resources is less than or equal to the revenues generated from land reclamation and agricultural production.

Finally, it is important to remember that as adherence to WTO increases the globalization of agriculture, Egypt's agricultural sector might face threats that would harm low-income groups and the poor in rural areas.

Tourism

Tourism is one of the major sources of income in Egypt, and is a fast growing sector of the economy. The share of tourism in national income increased from US $300 million in 1982 to US $3.8 billion in 1997. More growth is expected in the tourism industry in the coming years as foreign investment continues to increase. Global interest in Egypt, as a unique international tourist attraction, is considerable, since the country incorporates a rich historical and cultural heritage as well as an aesthetic natural environment.

Tourism is one of the major sources of income in Egypt, and is a fast growing sector of the economy.

Tourism is a 'blessing' because it generates job opportunities, encourages maintenance of Egypt's cultural and historical heritage,

and enhances growth. Tourism depends on the environment to sustain it. It also relies on the development and utilization of natural, historical, cultural and human resources in the local environment. Providing a high quality world class experience for visitors, and maintaining or further improving the quality of the environment are among the objectives of sustainable tourism development.

Tourism depends on the environment to sustain it.

A boom in the tourism industry will, undoubtedly, incorporate positive as well as negative impacts on the biodiversity of the Egyptian environment. Coral reefs in the Red Sea are one of the main attractions, their lavish richness harboring about 179 species. These submarine animal forests have an even greater diversity of life than rain forests, which marine biologists and scientists are still learning about. One coral reef species is being used in bone grafts and another has helped develop pesticides. Coral reefs serve as natural breakwaters protecting land from typhoons and erosion. In Egypt, coral reefs extend along most of the shoreline of the southern part of Sinai, especially at Ras Atantur and from Ras Nasrani to Ras Mohammad. Reefs are also found round Hurgada and near Gebal Elba at the extreme southern border of Egypt. This phenomenal coral reef formation is highly vulnerable to environmental changes, such as in climate, sewage discharge, spillages, and from human handling. Recreational divers and snorkelers can cause considerable damage through trampling, the dropping of dive boat anchors, and physical contact. In addition, the fast development of tourism in Hurgada and Sharm El Sheikh on the Gulf of Aqaba has led to the building of more hotels to accommodate the increase in the number of local and international tourists. According to 1996 figures, the south Sinai coastal region generated about 308 million tourist nights or 16 per cent of total national hotel nights. A survey investigating sustainable management of coral reef diving sites indicates that this will lead to more services such as roads, and desalination and sewerage treatment units, which will generate more marine pollution and increased danger to the coral reefs. The survey calls for action to protect this precious natural gift.

Damaging our coral reefs not only means degrading the environment, but eventually losing international, and local, tourists in the future. Regulating tourism, educating divers, and controlling infrastructure expansion so that it does not cause environmental damage will protect our environment and guarantee a continuous and prolonged flow of tourists. Hence, sustainable tourism development is a far-sighted concept that must be adopted.

The Impact of Environmental Pollution on Health

Human health is highly sensitive to water and air pollution for the simple reason that air and water are indispensable for the survival, not only of human beings, but of all living creatures on which human lives depend. Thus, water and air pollution figure among the most serious challenges worldwide, and in developing countries in particular, where practice lags behind awareness. Egypt is no exception in this regard, notwithstanding significant progress achieved during the last few years.

Water Resources

The Nile basin in Egypt is a closed water system. Thus inputs and outputs must be balanced. The release from the Aswan High Dam is the major input into the system, excluding a small amount of rainfall on the northern coast and some deep groundwater from outside the basin, both of which are insignificant. The overall efficiency of the system is relatively high because of water recycling. Of the total amount of water in the system about 12.97 billion cubic meters (BCM) comes from reused agricultural drainage, 4.8 BCM from groundwater abstraction from the renewable aquifer in the Valley and Delta, and 0.7 BCM from treated domestic sewage.

Water Quality

An assessment of water quality in Egypt has indicated that the major water quality problems are bacteria/parasites, heavy metals and pesticides. The indiscriminate discharge of human waste into waterways has created significant pollution problems with serious health implications. Analysis of random samples collected from effluents

discharged from wastewater treatment plants indicates a high percentage of non-compliance. The major areas of concern are groundwater contamination, internal or external contamination of crops, and translocation to grazing animals.

Among the major sources of water pollution is domestic and agricultural wastewater. The amount of domestic wastewater was estimated at 3.6 BCM for the year 1995/96. Most treated and untreated domestic wastewater is directed to the agricultural sector. Currently, the government is developing a national policy to encourage the reuse of drainage water by mixing it with freshwater.

Irrigation Wastewater

Irrigation wastewater is considered a non-point source of pollution. The wastewater is collected by drains that pour their loads into the river Nile, the northern lakes, or irrigation canals to be mixed for reuse. Eventually, non-point sources of pollution may affect the quality of groundwater. Pesticides enter the hydrosphere via the direct discharge of wastewater, runoff from non-point sources, and leaching through the soil. If not properly handled, pesticides can cause serious health and environmental problems. During 1998, for example, 5,300 pesticide poisoning cases were reported.

Industrial Wastewater

Industrial wastewater is a major source of contamination by heavy metals. Unfortunately, once discharged into waterways, these attach to sediment particles and are thereby passed to bottom-dwelling organisms. The subsequent consumption of these organisms produces successively higher concentrations that cause toxicity when reaching certain level at the top of the food chain. Crops irrigated with contaminated water may take up contaminants through the soil and roots, or may retain the contaminants on the crop surface after contact with irrigation water.

Drinking Water

Poor quality drinking water is a concern for many in Egypt. This is due, in part, to the fact that sources of raw water for many areas have become increasingly polluted, and therefore require more sophisticated treatment to produce drinking water of adequate quality. Furthermore, water treatment units do not always function properly as a result of poor maintenance and inappropriate operational procedure. Even when water treatment is satisfactory, drinking water, in some old districts and settlements, is sometimes contaminated through leaking distribution networks. Rooftop water storage tanks have also been identified as a source of bacterial contamination of drinking water. The results of the analysis of random drinking water samples collected from conventional treatment facilities during 1998, indicated non-compliance with Egyptian standards. Samples that failed to meet these standards ranged from 6.3 per cent in the governorate of Matrouh to 15.2 per cent in South Sinai. This ratio was much higher in areas using groundwater as their source of drinking water. Bacteriologically contaminated samples ranged from 12 percent in Giza to 43.6 per cent in Ismailia. With regard to chemical contaminants, non-compliance was much higher, ranging from 20.8 per cent in Gharbia to 73.7 per cent in North Sinai. Total reported cases of infectious diseases in 1998 amounted to 50,328.

Currently, the government is developing a national policy to encourage the reuse of drainage water by mixing it with freshwater.

Air Pollution

One of the environmental crises resulting from rapid urban growth associated with globalization, is the deterioration of air quality. The issue of ambient air pollution has become a main environmental priority in Egypt. Air pollution comes from natural and human-made sources. Natural air pollution sources are wind-blown dust coming from desert areas. Human sources are of two main types: stationary and mobile. The first includes industrial facilities, thermal power stations, some commercial residential buildings, open burning of garbage and agricultural residues. Mobile sources include passenger cars, buses, trucks, motorcycles, and other vehicles. More than fifteen million Egyptians residing in cities are exposed to levels of dust and smoke, known collectively as Total Suspended Particles (TSP), which exceed WHO standards. Air quality

monitoring data show that TSP in all monitoring stations, from Alexandria to Aswan, exceeded the maximum limit of 90 microgram/m3. Among the main contributing factors to this type of pollution are regional disparity and heavy congestion in some cities and governerates (see Box 4.5).

Action to combat the air pollution problems includes developing accurate data on air quality, and the creation of comprehensive inventories of air pollutants in the urban and industrial centers of Egypt. The EEAA has already embarked on two major projects for environmental monitoring, namely, the Environmental Information and Monitoring Program (EIMP) and the Cairo Air Improvement Project (CAIP). The two projects have been developing monitoring networks to provide data on air quality. However they are not currently equipped to deal with forecasting. Nevertheless, they may be considered a good start towards developing an integrated management system for air quality. Such a system can be further developed through cooperation with other stakeholders, such as experienced research centers (e.g. the National Research Center, and the Ministry of Health and Population) to map out comprehensive strategies and air quality management programs. Legislation should be reviewed and realistic air quality and

In Egypt, there is a large gap in the distribution of power, status and wealth between Cairo and the countryside.

Box (4.5)
Globalization, Disparities and Women, A Dependency Point of View
by Ahmed El-Kholi

In many parts of the Third World, there is a discontinuity and a sharp discrepancy between urban and rural areas. Dependency theory suggests that the disparities between rich and poor, city and countryside, powerful and powerless can shape the development of the process of urbanization. In Egypt, there is a large gap in the distribution of power, status and wealth between Cairo and the countryside. Cairo, as a "core" has exploited the resources of the "peripheral" countryside, leading to a condition of excessive dominance over other parts of the country and hindering their development. This unequal relationship is demonstrated within the Cairo metropolitan area, where formal and informal areas co-exist in close proximity to each other. The Egyptian elite reside in cities which are well connected to the global economy, and services, communications, transport, education and medical facilities in general are significantly better than in peripheral areas. . The more the Egyptian economy integrates into the global economy, the more these disparities will grow with likely increased urban economic, social and environmental ills.

As globalization redefines the division of labor and specialization between nations at the core and those at the periphery, it also reaffirms the exploitative relationship between urban and rural areas, and between formal and informal sectors within the metropolitan area. Informal settlements do not grow in a vacuum; rather they grow in the sphere of capital circulation. Thus, the faster the national economy integrates into the global economy while maintaining this dualism, the faster informality will spread, and a greater degradation of the environment is to be expected. All this will impact negatively on human resources.

While women constitute around 48 per cent of the total population in Egypt, they do not receive an equitable share of wealth and power, particularly in informal settlements. Since globalization will promote regional disparities, it will reinforce the trend towards informality and the deterioration in women's conditions, particularly in the informal sector.

The GOE could enhance those programs which improve the working conditions of women in the informal sector. Different ways to assist include capacity-building programs, job training, education, and encouraging small businesses. More generally, the government should pursue plans to increase awareness and empower women to participate in the decision-making process. The needs of women should be taken into consideration during all the phases of planning, policy-making, programs and projects. The promotion of informal sector activities will raise women's living standards. Finally, the provision of affordable child-care and family planning services should lighten the burden of women's reproductive role and permit them a greater degree of economic participation.

emission standards adopted for the different locations and sources.

Waste Management

Better waste management techniques could reduce pollution, which will be favorably reflected in the QOL and people's health. This applies to all kinds of waste, including municipal, health care, radioactive, agricultural, construction, and demolition waste.

Municipal Solid Waste

Municipal Solid Waste (MSW) is comprised of solid waste materials produced in homes and businesses as a consequence of everyday activities. An estimated 60 per cent of the generated MSW in Egypt comes from urban areas. According to a survey conducted in six Egyptian cities, generated MSW consists mainly of organic fraction (68.2 per cent), paper (15.0 per cent), plastic (5.5 per cent), cloth (2.5 per cent), glass (1.7 per cent), wood (1.4 per cent), metals (1.4 per cent), bones and dust (3.3 per cent).

MSW management covers a broad and complex range of processes and activities, including collection, transportation, treatment, disposal and/or recycling. Solid wastes include all domestic refuse and non-hazardous wastes such as commercial and institutional wastes, street sweepings, and construction debris. Rapidly growing quantities of garbage threaten human health and the environment. In Egypt, less than 10 per cent of urban wastes are treated, and only a small proportion of that treatment meets acceptable standards. Organic materials in MSW generate methane, which contributes to climate change.

Health Care Waste

The major problem with health care waste in Egypt is the result of the mixing of medical wastes with MSW. In 1999, a study for EEAA, financed by the Danish Danida, showed that some hospitals treat their waste by incineration. However, observation revealed that there are problems with operating most of these incinerators. In health care units that lack incinerators, medical waste is mixed with the ordinary municipal solid waste which contractors collect to transfer to dump sites. Few hospitals seperate their waste for disposal. Health care waste is a potential hazard for public health if not properly managed, and the development of an integrated management system for the collection, treatment, transport, and disposal of this type of waste is essential.

Better waste management techniques could reduce pollution.

Radioactive Waste

Radioactive waste is generated from the nuclear fuel cycle, and from nuclear applications (the use of radionuclides in medicine, research, and industry). There is limited information regarding the magnitude of the problems associated with the import, use and disposal of radioactive materials in Egypt. These materials are used as inputs in certain manufacturing and treatment processes. Given the potentially dangerous characteristics, safe and environmentally sound management of radioactive wastes is an important concern which needs attention.

Agricultural Waste

Agricultural residues are estimated to be about 25 million tons per year, of which 12 million tons are used in energy production, which include rice straw, used for industrial purposes. Another 3mn tons are used to produce biogas. The remainder is burned directly. Very little is used as organic fertilizer or animal fodder. The unsafe management of agricultural waste has negative impact on the quality of air and soil. Agricultural wastes, which include manor, are partly responsible for generating GHG. For sustaining rural areas development, the Government will have to increase its efforts in environmental issues of managing agricultural wastes.

Construction and Demolition Waste

Most construction and demolition waste (CDW) is non-toxic and suitable for recycling. However, the recycling industry in Egypt is highly selective and uses a very small portion of the total generated waste. CDW is often dumped on the side of highways or undeveloped land, causing a traffic hazard, and on windy days, increases the level of TSP. Proper CDW management would result in cleaner sites around con-

struction areas, reduce airborne pollution, reduce demand on landfill sites and, given the widespread nature of this phenomenon, provide additional job opportunities for unskilled and manual labor.

Prospects for Human Resource Development

Contribution of human capital to development is greater than both natural and physical capital.

In Egypt, as in all low-income countries, resources are scarce, which contributes to uneven and less than ideal environmental policies. Some argue that environmentally degrading industries, e.g. cement and chemicals, are necessary because profit generating and could give the country a comparative advantage. The unfortunate reality, as this example demonstrates, is that pollution and depletion of natural resources are often a consequence of a short term drive for economic growth. To achieve sustainable economic development and higher rates of growth, both in the medium and long term, Egypt must be able to manage and harvest its resources efficiently. One abundant source is the rich pool of human talent and capacity available.

Technology in all its forms, can only be exploited via investment in human capital and the virtuous circle of education.

Human capital is a major determinant of a country's growth potential. Recent evidence suggests that the contribution of human capital to development is greater than both natural and physical capital. Human development is key to increase the growth of output and income, and high productivity the engine for economic growth. Technology in all its forms, can only be exploited via investment in human capital and the virtuous circle of education. Education raises productivity, which in turn increases the chances for higher wages, and more efficient management of health and nutritional requirements, as well as a cleaner and better environment, which in turn would raise productivity, and so forth.

Policy Recommendations And Planning Implications

The environment is threatened under globalization. Some problems relate to growth or economic factors, some have elements of both. Thus, developed countries may try to dump their industrial waste in developing countries, who are tempted to accept for short term financial considerations.

Enacting appropriate legislation and enforcing it to avoid environmental degradation and exploitation can mitigate such problems. Governmental efforts have so far been marked by the development of an environmental policy and the creation of EEAA. However, a better understanding of the relationship between environmental policies and the various economic sectors is needed when formulating new environmental policies. For policy purposes, it might be useful to consider the following:

1. Avoid short-term and remedies when designing policy.

2. Develop policies which strike a balance between the interests of present and future generations.

3. Base policies on sound economic and financial foundations.

4. Introduce new environmental standards that are realistic, appropriate, affordable and enforceable.

5. Encourage community participation to generate real grassroots solutions

6. Draw upon and enhance the role of all relevant actors, including the private sector, local administrations, and NGOs.

7. Provide incentives for environment-friendly industries that would meet international standards for the benefit of both local and global markets.

8. Tailor solutions for different conditions and locations to alleviate regional disparities and provide better living conditions, especially in informal settlements.

Since the environment is a crosscutting issue, planning will have to abandon sectoral for cross-sectoral approaches. In other words, Egypt should not plan for agriculture and irrigation per se, but rather for land and water using an integrated approach. This will require new institutional and participatory structures for decision-making and motivate parties that are directly affected to ensure implementation. Greening national accounts and developing production

and consumption indicators based on resources input and pollution output should replace conventional economic measures.

A democratic planning process should not be based on deterministic planning models. The ‘if-then’ logic will have to be replaced with ‘both-and’ logic that recognizes and acknowledges diversity and pluralism. The planning process should move away from being a problem-solving exercise into a technical-political process that aims to build consensus on issues and reach agreements on solutions that are acceptable to all parties. It should be extended to building partnerships to cope with ongoing local and global transformations. Efficient use of specialist advisory and consultation mechanisms could also be of great help in this respect. This transformation is a prerequisite for sustaining development and achieving economic growth whilst protecting the environment.

A democratic planning process should not be based on deterministic planning models.

Annex 4.1
Incorporating The Depletion of Non-Renewable Resources as a Cost of Production

Two approaches have been proposed for incorporating the depletion of non-renewable resources as a cost into production accounts. El Serafy (1981) has proposed a 'user-cost' approach to distinguish between the true (that is, sustainable) income component of the sales revenues of minerals and its capital component, which is to be deducted from the gross production value as a user-cost. In contrast, Repetto and his colleagues (1989) have applied a 'depreciation' approach. Gross value added is not affected by this method, in that the consumption and increase of natural resources are treated as produced capital. This makes it possible to obtain further modified (in addition to the depreciation of produced fixed assets) estimates for net value added of the oil and gas sector and for the whole economy.

The Depreciation Approach

There are two proposed, and widely applied, models of the current net price method for estimating the depletion allowance under the depreciation approach. The first model, Net-Price II (NPII), is proposed and applied by Landefeld and Hines for US oil and gas for the period 1941-1978; Repetto et al for Indonesia (1989); Vaze (1996) for the UK; and Common and Sanyal (1997) for Australia. The second model, Net Price I (NOI), is suggested and applied by the United Nations (1993). NPI proposes that new discoveries from the NPII model be recorded in balance sheets, and not in flow accounts, under 'other volume' changes. This is to avoid the volatility it may bring to income measures. Another view is that depletion allowance is a transaction between agents (from non-produced to economic assets) and can legitimately be brought into the income account, which is not the case for discoveries (Bartelmus et al., 1993, 1994 and Van Tongeren et al., 1993).

Proponents of the depreciation approach maintain that the depletion allowance of natural resources entry should be placed at the level of NDP with depreciation of man-made assets.

In NPI the net profits from the natural resource are simply deducted from GDP. In this method:

GR = TR-COE (1)
PR = GR – (rNS+Dep) (2)
8 = PR/QE (3)
DEPL = (QE) (4)
VR = 8 (QRES) (5)
Where:
GR = gross rent,
TR = total revenue,
COE = average variable cost of extraction, including compensation of employees, materials consumed, etc.,
RR = resource rent,
r = interest rate, discount rate,
NS = net stock of capital employed in mineral extraction valued at current replacement cost,
Dep = depreciation of net stock,
8 = resource rent per unit (net profit),
QE = quantity of resource extracted during the year,
DEPL = value of the annual depletion,
VR = value of the resource stock,
QRES = stock of resources
In equation (4) natural resource depletion equals the resource rent per unit (8) times the quantity of resource extracted during the year (QE). But Repetto modifies equation (4) by adding the discovery of new resources to income in the year of discovery; this method is known in the literature as NPII.

DEPL = 8 (QE-ND) (6)
Where:
ND = discoveries during the year

The User-Cost Approach

The handbook of Integrated Environmental and Economic Accounting (United Nations 1993), or SEEA, mentions two concepts or analogies for viewing natural resources: fixed capital and inventory. It also suggests two approaches for valuing the depletion (or depreciation) of natural resources: the net price method and the El Serafy 'user-cost'

approach. The net price method has already been discussed. In 1981, El Serafy presented his method for dividing the proceeds from the sale of an exhaustible asset, such as an oil reserve, into a portion that could be consumed and a portion to be reinvested. The El Serafy method calculates the proportion of true, perpetual or 'sustainable' income to the proceeds from the extraction of a natural resource from a fixed stock. According to the user cost model the ratio of true income to receipts is given as:

$$\frac{X}{R} = 1 - \frac{1}{(1+r)^{(n+1)}} \quad (7)$$

$$R - X = R\left[\frac{1}{(1+r)^{n+1}}\right] \quad (8)$$

Where:

R = the net receipts of the resource

X = true income of the resource

n = the life expectancy of the resource

r = social discount rate

The El Serafy method of calculating 'proper income' has become an important approach to estimating the depletion allowance of non-renewable natural resources. For example, Vaze (1996), Common (1997), and Foy (1991) have applied his user-cost approach when they calculated the depletion allowance using the possible valuation approaches. More importantly perhaps, the El Serafy approach is presented by the SEEA, the satellite counterpart to the System of National Accounts, as a valid alternative to the net price approach. Stocks of natural resources can easily be treated as inventories in both physical and monetary terms. Conceptualizing natural resources as inventories gives rise to the possibility of, not the preference for, using the El Serafy method. In fact the El Serafy method avoids the application of negative net prices by subdividing the actual operating surplus into two parts: depletion or user-cost which should be invested to achieve a constant flow of income in the future, even after the complete exploitation of the natural resources, and a remaining true income element (UN, 1993).

The user-cost approach results in a lower deduction from, or in addition to, GDP than the value of depletion resulting from NPII or NPI. For example, NPII adds the total value of new discoveries to GDP whereas the user-cost approach only adds a percentage of its total present value. Therefore, the El Serafy depletion allowance would not be less than zero. But NPII gives a negative depletion allowance if new discoveries are greater than extraction. However, NPI gives a higher estimate for the depletion allowance and lower estimates for income adjusted measures because it does not account for new discoveries.

Chapter Five

Egypt's Position in Technology and Information Led Globalization

Globalization has become inseparable from the elements of control and organization inherent to the hi-tech revolution,

The world has had a series of industrial revolutions. The first began at the end of the eighteenth century, lasted to the end of the nineteenth century, and was characterized mainly by the manufacture and use of iron machines, as well as by the use of steam as an industrial energy source. A second industrial revolution extended until nearly the end of the Second World War and was characterized by intensified multipurpose usage of iron and steel, sophistication and diversification of machinery for increased manufacturing, and use of petroleum and electricity energy sources. The present industrial revolution has come with the introduction of nuclear energy and spectacular developments in the aerospace, electronic, machinery and automatic control industries.

Starting in the 1970s, the development of electronics and integrated circuits has introduced the use of minute multipurpose equipment in almost every domain, notably in the aviation and space industries, and has brought computers, remote controls and a host of other products to the ordinary man. By the 1990s and to date, hi-tech has extended to cover essential and basic activities and functions all over the world. This present-day revolution manifests itself in the domains of information technology, communication, and biotechnology (see Box 5.1), with digital electronic technology as the pivotal catalyst. Further, it has impacted on a wide range of human activities, including research on the compression of time and space, or, indeed, on the spread of globalization.

Globalization has become inseparable from the elements of control and organization inherent to the hi-tech revolution, especially in the fields of electronics and their application, and in the exponential growth of information and communication technology. Where does Egypt stand with regard these new and rapid developments? It faces challenges on a variety of fronts, including those encompassed by human development concerns. Can Egypt meet these challenges

Box (5.1)

The Hi-Tech Revolution

From within the electronic revolution, a high-tech revolution, mainly in the electronics and biological fields, overtook the world in the late 1980s and early 1990s. In the minute electronic field, a number of qualitative changes were introduced to information processing and long-distance communication equipment. After being relatively separate fields, informatics and telematics were integrated to become the nucleus of the well-developed information technology of today. This was achieved by the digitalization of information transfer technology.

This revolution is reflected in two major areas. The first is network connection through computers, or the "Internet revolution", progress in the techniques of digital diffusion, the recording of sound and pictures together via satellite TV and spatial diffusion, and cellular phones (mobiles). Furthermore, there is a program aiming to integrate the technology of cellular communication and that of spatial diffusion and reception of sound and pictures. This would link the computer, the mobile, and the television in one homogeneous digital-electronic space, which represents a new qualitative change in information and communication technology.

The second area is the biological field, where genetic engineering is at the forefront of tremendous developments in medicine, agriculture, and food. Scientific research to accomplish a genetic map of the human body, known as the Genome Project, is one of the most recent hi-tech applications in the biological field.

in such a way to maximize its gains and minimize its losses? It is to these and related questions that this chapter is devoted.

The Digital Divide

Information and communication tools, such as personal computers and the Internet, are becoming increasingly critical for economic progress and the growth of human capabilities. New information and communication technologies are transforming the ways we live, learn, and work. Nations that succeed in harnessing the potential of these technologies can look forward to greatly expanded economic growth, dramatically improved welfare, and stronger forms of democratic government. People without ready and reliable access to the tools of the information age will increasingly become second-class global citizens.

The technology gap is a reflection of greater social issues. With an uneven spread of information and communication tools, disadvantaged countries and societies could become marginalized. Whether in education or income, health or politics, the digital divide must be addressed, since there is a risk of relegating a portion of the world, or of a society to an underclass.

The 'digital divide' refers to the gap between those who have access to, and can effectively use, new information and communication tools and those who cannot. For many groups, the digital divide has been widening as the information 'haves' outpace the 'have-nots' in gaining access to electronic resources.

Internationally, penetration levels differ substantially according to income, educational level, gender, household type, and geographical location. The differences in connectivity are most pronounced with respect to computers and Internet access. Nevertheless, it is apparent that more and more people are becoming increasingly connected whether by telephone, computer, or the Internet.

The Digital Divide in Egypt

The gap in technology between South and North is undeniably large. Moreover, the significant digital divide, separating the global information 'haves' and 'have-nots', is widening due to many factors. In Egypt, the factors affecting the digital divide can be categorized into common and local factors. The common factors include infrastructure, income levels and literacy rates. The local factors go beyond to include language and cultural barriers as well as business infrastructure and the digital trust .

Dependence on information technology is quite limited within the Egyptian economy. Limited local demand, absence of a unified IT legislation, limited per capita income levels, low literacy rates, lack of basic computer skills, and non-adherence to intellectual property law, have all contributed to a weak IT industry. Moreover, four fifths of web sites are in the English language, whereas only a limited number of Egyptians can communicate in this language.

Despite these weaknesses, Egypt has a very large educated workforce, comparatively low labor cost, a fairly developed infrastructure and proximity to the European market. All these strengths put Egypt in an advantageous position and create better opportunity for investment in, and development of, the information and communication industries.

Recognizing the impact of the digital divide, Egypt has been implementing several projects in order to improve its IT status. These projects aim at helping children, as well as adults, to familiarize themselves with the new technological transformation spreading all over the world. The digital divide in Egypt might seem difficult to bridge in the short run, but serious efforts are being made to provide Internet access and other telecommunication means for each citizen in the long run. The Cabinet Information and Decision Support Center (IDSC), and other governmental bodies are developing a number of schemes to provide easy access to the Internet and to increase the Internet literacy rate in Egyptian society. While significant, these efforts remain insufficient and risk being constrained by the scarcity and cost of hard currencies unless a parallel development takes place in the domestic production of the means of information and

Information and communication tools, such as personal computers and the Internet, are becoming increasingly critical for economic progress and the growth of human capabilities.

The digital divide has been widening as the information 'haves' outpace the 'have-nots' in gaining access to electronic resources.

communication, notably in computers, software, mobile telephone posts and the necessary infrastructure needed.

Is the Digital Gap Narrowing in Egypt?

Different indicators have been adopted to describe the status of the digital divide. Among these are the following:

Telephone density. This is calculated by dividing the number of telephone lines by the number of people. The commonly used figure is the number of telephone lines per 1,000 inhabitants.

Since 1981, telephone lines in Egypt have grown dramatically, from 510,000 lines in service in 1981 to over six million lines in 2000. Figure (5.1) shows this increase during the period 1982-2000. This jump represents more than a 1000 per cent increase. Efforts are being made to encourage more people to own telephone lines by reducing installation costs, the price of calls and the 'wait-time' to get connected.

Efforts are being made to encourage more people to own telephone lines by reducing installation costs, the price of calls and the 'wait-time' to get connected.

Figure 5.1 : Number of Telephone Lines in Egypt (1982-2000)

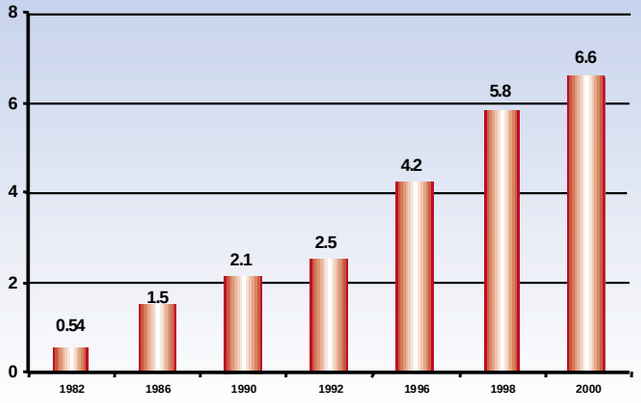
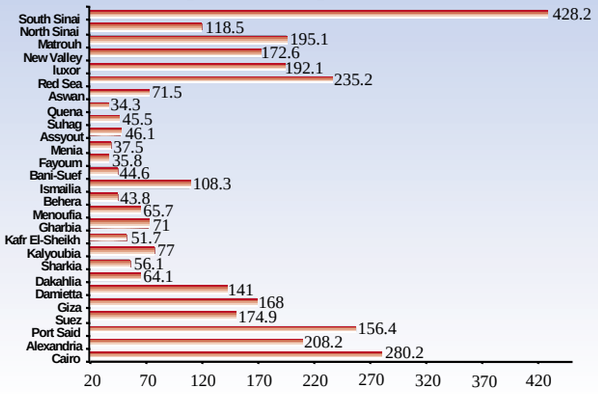


Figure 5.2 : Egypt: Telephone Density by Governorate (2000)
(Telephone Line per 1000 Persons)



At present, there are more than 6.6 million telephone lines distributed across Egypt. This means that there are 104.2 lines for every 1000 persons. However, data from 1998 indicates that the relative position of Egypt (60 lines) is low when compared to the Middle East and North Africa (MENA) Region (80 lines), or to the Arab countries (140 lines).

Mobile Phones: Other telecommunication services have been introduced in Egypt over the last four years. The Global System for Mobiles (GSM) was launched in 1996. Telecom Egypt established the first mobile network, which was later privatized. A second mobile concession has been awarded to Misr-Phone to enable competition in this area. Since the introduction of the mobile phone, there has been a considerable increase in the number of users. In 1997, the number of mobile phone users was a little over 58,000 users. Following privatization, the number had exceeded 1.3 million users by the year 2000, as shown in Figure (5.3).

PC Density. Since having access to a PC is a prerequisite for Internet users, PC density becomes another important indicator of the digital divide. This is measured by dividing the number of PCs-in-use in a region by the number of citizens, although it is somewhat difficult to calculate the exact number of PCs in use, given frequent upgrades and disposal of old computers.

Consequently, data on PC density is hard to collect at the national level. The Egyptian PC industry is not well organized and completely controlled by the private sector, with the informal sector playing a key role. Based on available data (Table 5.1), the number of sold PCs, both imported and locally assembled during the period 1994-2000 can be estimated at 947,000 units.

Table (5-1)
Egypt: Number of PC's sold (in thousands)

1994	1995	1996	1997	1998	1999	2000*
45	64	90	120	160	208	260

* Forecasted

Assuming that only one person uses each computer, only 1.4 per cent of Egypt's total population is using computers. This percentage is considered low compared with international standards, or even with the figures available for the United Arab Emirates (almost 11 per cent).

While data about PC density at the governorate level is not available, it is estimated that 80 per cent of the computer base is located in greater Cairo and Alexandria, leaving only 20 per cent for the rest of the country.

Percentage of Internet users. Internet usage is the most crucial element in determining the potential of a region to participate in this new information world. The Internet was introduced in Egypt by the IDSC and the Supreme Council of Universities (SCU) in 1993. IDSC controls government and commercial domains, while SCU manages the educational domain. Yo begin with, IDSC provided Internet services free of charge for three years to increase awareness. In 1997, it started to privatize the service through Internet Service Providers (ISPs). More than sixty-six ISPs are now operating in Egypt. They cover twenty-four governorates. Figure (5.4) shows the distribution of ISPs by regions.

IDSC subsidizes the service outside Greater Cairo and Alexandria by providing other areas to Service Providers at a reduced rate, costs ranging from 50 per cent to a low 90 per cent, which applies to the most deprived governorates.

Figure 5.3 : Number of Mobile Users (1997-2000)

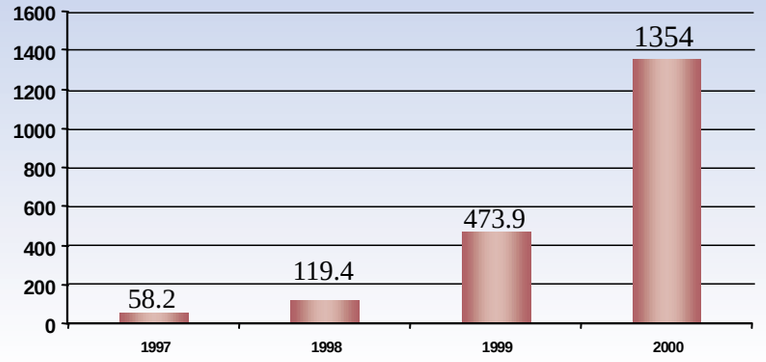


Figure 5.4 : Egypt: Distribution of the ISPs By Region (July 2000)

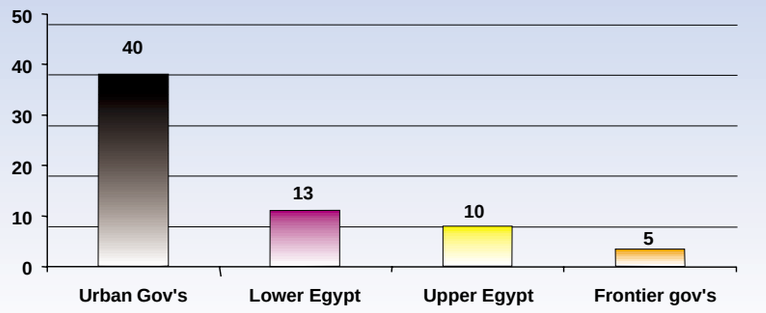


Figure 5.5 : Number of Internet Users in Thousands

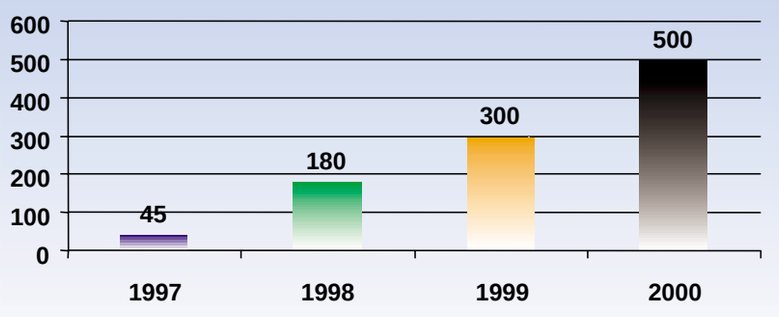


Figure (5.5) indicates that there has been a considerable increase in the number of Internet users over the last three years due to efforts aimed at achieving a breakthrough in this area. The number of Internet users grew from 45,000 in 1997 to around 330,000 in 1999. Currently, the number is estimated

at around 500,000 users. This is a relatively small number compared with other countries, but reflects a high growth rate compared to previous years. In terms of absolute number of users, Egypt is leading the Arab countries, but the United Arab Emirates take the lead in terms of the percentage of Internet users in total country population.

Data related to the distribution of Internet users between governorates has to date not been gathered in a formal way. A sample of 5,000 users using IDSC services shows that distribution is biased towards Greater Cairo and Alexandria. Table (5.2) shows the discrepancy between the major five regions of the country.

Table (5-2)
Egypt: Distribution of Internet Users by Region

Area	Creat Cairo	Alexandria	Upper. Egypt	Lower Egypt	Frontier Govern.
45	64	90	120	160	208

Developing countries already suffer from economic and social divides.

Volume of E-Commerce. The Internet has recently become a powerful tool for communication, education, entertainment, and of course, commerce. E-commerce transactions are now used by businesses to cut costs in many areas including purchasing, sales and pursuing new sales opportunities, and providing more efficient and effective customer services. E-commerce is attracting an increasing share of the world economy, its volume growing by hundreds of billions of US$. It is estimated to have reached US$ 223.1 billion by the end of 2001 with the United States holding a market share of 70 per cent.

E-Commerce was introduced to Egypt in 1998, but it is still very difficult to measure its volume. This is due to the large number of parties who only partially carry out procedures. However, despite the legal and financial problems associated with its growth in Egypt, it appears to be growing at a reasonable rate. The basic form it takes in Egypt is business to customer (B2C), with businesses focusing on fast food, recruitment, and real estate. 'Dot com' companies are starting to operate locally, and have become a 'hot' issue as big business moves in to become part of the new economy. Six new 'dot com' companies alone have been established in the last six months, currently only in greater Cairo, and these appear limited to the younger generation.

The E-Government Program

Although the GOE believes that it is the private sector that should take the lead, within a legal and regulatory framework that is conducive to IT, it is in fact the government which took the initiative to provide services on the Internet in order to promote Internet usage in Egypt. The E-Government project encompasses three phases:

The first phase was inaugurated on 4 October 2000. This phase is limited to the provision of information about government services to the public. A web site has been launched on which all government procedures and fees required to conduct a service have been posted. One can also dial 131 on the telephone to get information about government services. Moreover, privately operated kiosks are slated to provide this data to the public at minimum cost. The second phase covers transactions with selected government units, and the third phase will cover the full integration of services in different government units.

Box (5.2)
Digital Divide versus Digital Opportunity

Developing countries already suffer from economic and social divides, given an accumulation of development problems, so it is legitimate to ask why they should care about the digital divide. However, governments are aware of the threats arising from the widening digital divide, which can dramatically increase the existing economic and social divides.

Threats

- **Widening Productivity Gap.** The latest six major economic studies in the USA confirmed that the intensive use of IT products contributed by half or more to the acceleration of the USA economy in the last five years. Given the existing gap in productivity between North and South, one can conclude that the increase of this gap comes as a result of the extensive use

of IT in the North, while the South is still struggling to close the old gap.

- **Severe Competition.** IT opens the door for developed countries to access the markets of developing countries with new products and services, representing a real threat to all businesses in these markets. Further, IT helps developed countries adopt new business models that outperform existing business models in developing countries. Developed countries have lower costs, better services and higher performance. As a result, business communities in the developing countries will face severe competition and may lose their markets to the more efficient models.

- **Lower Migration Opportunities.** IT application in the developed countries is changing workforce requirements by increasing demand for highly qualified personnel. This will limit the job opportunities open to citizens of developing countries in industrialized countries, reducing the chances of wage equalization.

Opportunities:

- **Problem Solving.** Application of IT in the developing countries can create new opportunities for solving developmental problems.

- **Better Education Services.** Distant Learning can help developing countries solve some of their higher education problems. High enrollment rates at overcrowded universities and colleges can be largely offset by the application of distant learning, which also lends itself to more flexible study hours and part-time education for the employed. Course content can be significantly improved through cooperation between different staff members using the potential of IT.

- **Better Health Services.** Telemedicine can provide better health services, especially to rural areas. Doctors in the small villages of Egypt – and indeed, in urban areas - can experience the professional value of the Internet as a tool to access the latest medical developments, to enhance the level of service provided. Collaborative work with other doctors offers opportunities to consult and to raise skills.

- **Less Bureaucracy.** The average number of visits to conclude a service with government agencies in Egypt is 3.5 visits. The first visit is simply to know what the required procedures are, when a web site or telephone center would achieve the same end more speedily. Corruption resulting from "gatekeepers" who control access to bureaucratic procedure can be cut down dramatically by allowing transactions to be conducted on the Net.

- **Wider Markets.** IT can open the door for business organizations to outreach to the world. Small and medium enterprises (SMEs) can have access to world markets and expand their local markets. Additional exports can be realized through proper planning and coordination between different bodies. Subscription to electronic trade zones or electronic market places would open new opportunities for developing countries to rationalize their imports and increase their exports. IT can allow developing countries to enter and compete in some fields on an equal footing with developed countries.

- **New Jobs and Income Creation.** Software industries, IT services, data entry, operation, and maintenance are a few examples of activities that developing countries are already equipped to accomplish, which would create more job opportunities and raise incomes.

IT can allow developing countries to enter and compete in some fields on an equal footing with developed countries.

Turning these opportunities into reality requires coordinated efforts and collaborative work between different constituencies, including government, the private sector and NGOs. Setting national plans and strategies is essential in order to maximize the advantages and mitigate the threats.

Characteristics of the Digital Divide in Egypt

The most important characteristics of the

digital divide in Egypt can be summarized in the following four categories:

Urban / Rural Divide.

There are huge differences in the level of services between urban and rural areas.

There are huge differences in the level of services between urban and rural areas. Telephone density varies heavily between rural and urban areas as shown in Figure (5.6). In Upper Egypt, urban areas have a telephone density of 191 compared to 18 in rural areas. This is also applicable in the Frontier governorates where urban area telephone line density is 286 compared to 48 in rural areas.

Figure 5.6 : Egypt: Telephone Mainlines Density in 1999 Per 1,000 person

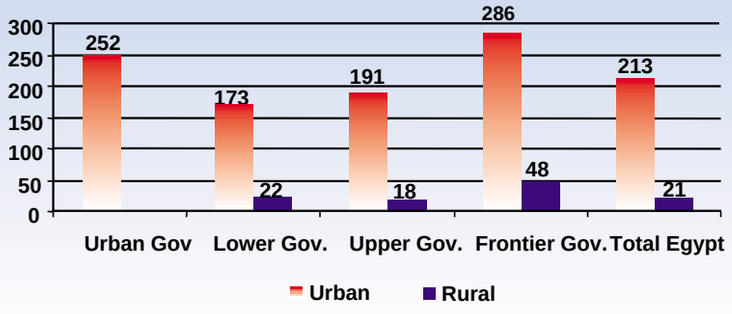


Table (5-3)
Egypt: The per capita income By Region (1997)

Region	Region
Urban Governorates	**6.550**
Lower Egypt	**3.811**
Urban	4.771
Rural	4.447
Upper Egypt	**3.673**
Urban	5.260
Rural	2.927
Frontier Governorates	**5.284**
Urban	5.715
Rural	4.610
Grand Total	**4.306**
Urban	5.679
Rural	3.526

High Income / Low Income Divide

In the new Global Information System, income level is a crucial element in determining the capability of absorbing and properly comprehending the new technologies.

Table (5.3) presents data on income levels in governorates in Egypt. Examination of per capita income for the different governorates reveals that accessibility to new technologies is associated with relatively high yearly income. Given that the average computer today costs about L.E. 3,000, the average person in Cairo would have to save up to 6-month's salary to buy a PC with cash. As Table (5.3) shows, per capita income in most of Egypt's governorates is quite low. In Urban Governorates (Cairo, Alexandria, Port Said, and Suez), the average monthly per capita income is about LE 545. Moreover, in Upper Egypt (Giza, Beni-Suef, Fayoum, El-Menya, Assyout, Sohag, Quena, and Aswan), monthly per capita income reaches L.E 438 in urban areas, while in rural areas it is as low as L.E 243 (less than half that of Cairo).

Table (5.4) shows that in Egypt the cost of Internet access from home is L.E. 95 per month, which represents about 17.5 per cent of the monthly income for a citizen in Cairo and Alexandria, and about 39 per cent for a citizen from Upper Egypt.

Table (5-4)
Average Cost of Home Internet Access per Year

Dial-UpConnection Cost per Year	L.E 600
Telephone Connection Cost	L.E 1/hour
Average Daily Use	2 hours = L.E2
Yearly Use	250 days
Total Cost of Telephone Connection	L.E 500
Total Internet Cost per Year	L.E 1150

Given the high cost of owning a computer and accessing the Internet, and given the unequal distribution of income in Egypt, one could argue that the digital divide would be deeper between different governorates, and between rural and urban areas within the same governorate. This would, in turn, be reflected negatively in future income distribution in Egypt (see Box 5.3)

Egypt has a largely cash economy which

Box (5.3)
Structure of IT Enterprises in Egypt

Much of the business sector in Egypt consists of micro to small units with small capital investments. Capital usually is less than the cost of ownership of a computer. Further, the dominance of informal enterprises in the business community does not create an environment conducive for IT to flourish in Egypt. IT entails the recording of each transaction, which is frequently avoided in the informal sector, to dodge social security and tax payments.

The business structure in Egypt is shown in the following table. This shows that more than 70 per cent of businesses are micro to small enterprises that are incapable of bearing the financial burden of access to Internet.

Changing attitudes towards the payment mechanism is a major requirement for E-Commerce to expand.

Table (5.6)
Egypt: Distribution of IT Enterprises by Capital

Capital (US$)*	No. of Enterprices** (thousand)	Percentage
< 425	1.118	70.8
425 - 4260	347	20.7
4260 - 14.204	82	4.9
14.204 - 284.090	49.6	3.0
> 284.090	10.2	0.6
Total	**1.606.8**	**100.0**

* The Official Exhange rate used = 3.52 LE/US$, November 23, 2000.

** In addition to the total number of Working enterprises, there are also 301 thousand branches of these enterprises.

adversely affects E-Commerce. The number of "plastic" cardholders in Egypt is about 300,000, who use credit cards mainly for transactions and payments abroad. Although the number of points of sale accepting cards is quite large, a number of businesses still prefer to receive cash payments. Thus, changing attitudes towards the payment mechanism is a major requirement for E-Commerce to expand.

Literate / Illiterate Divide

Education is a decisive factor in determining the ability of a person to absorb the new technologies. The illiteracy rate in Egypt is a little above 39 per cent of the total population, which means that more than one-third of Egyptians are neither able nor educationally prepared to understand Information Technology. It is obvious that the higher the illiteracy rate in a given country, the less viable it is to receive, understand and blend in with the new Global Information System. Table (5.5) shows illiteracy levels by governorate in Egypt for the year 1998.

There is a wide variation from one governorate to another. These figures can easily be related to the figures of Internet users in Egypt, where the number of illiterates is inversely proportional to the number of Internet users in the same area.

In El Menya, for example, the illiteracy rate

Table (5.5)
Egypt: Illiteracy Rate by Governorate 1998

Governorates	Percentage
Fayoum	56.71
El-Menya	55.15
Beni-Suef	53.82
Suhag	52.83
Assyout	52.53
Quena	51.76
Behera	47.60
Kafr-El-Sheikh	47.44
Matrouh	46.41
Sharkia	41.94
Luxor	41.56
Dakahlia	36.85
Menoufia	36.72
North Sinai	35.82
Kalyoubia	35.46
Gharbia	34.84
Giza	34.09
Aswan	33.22
Damietta	32.85
Ismalila	31.56
South Sinai	28.49
New Valley	25.13
Alexandria	24.81
Cairo	24.24
Suez	24.00
Red Sea	22.47
Port Said	21.41
Total	**39.36**

More than one-third of Egyptians are neither able nor educationally prepared to understand Information Technology.

IT is seen as a prerequisite for Egypt to build, manage and effectively use the information infrastructure of the twenty-first century.

is quite high, at 55.2 per cent. Accordingly, the percentage of Internet users is as low as 4 per cent of the total number of Internet users in Egypt. Cairo, on the other hand, where the illiteracy rate is relatively low, contains 75 per cent of Internet users.Thus, while other countries in the world are redefining illiteracy to be the lack of capacity to use computers, Egypt is still suffering from the primary problem of the inability to read and write.

Bilingual / Single Language Divide

Egypt faces another problem, namely the language barrier. Not everyone in Egypt is bilingual or at least speaks English. Those who do not speak English will face the problem of how to deal with new technologies, access the Internet or gain information through it. Therefore, the number of schools teaching English language as an obligatory course is rapidly increasing.

The National Program for Closing the Digital Gap

Over the years, the Egyptian government has applied several programs to close the digital gap, whether in comparison with other countries or at the national level between socioeconomic groups and between the different regions. IDSC led the way over the last fifteen years, in diffusing IT in government offices, and in establishing more than 1,500 information centers all over Egypt. More recently, in 1999, a new Ministry for Communication and Information Technology was established to implement a broad National Program, which consists of strategies, policies, programs and projects.

Strategies and Policies

Government of Egypt will also invest in research and development in order to tailor services and products for the poor and illiterate.

Government Commitments. The government has committed to expanding the information and communications technology in Egypt. It has stated its intention to be a role model in using the new technology in all facets of its operations. It will implement the E-Government concept, paving the way for the private sector to follow.

Building Human Capacity in Education and Training. Increasing the number of people with high skills in IT is seen as a prerequisite for Egypt to build, manage and effectively use the information infrastructure of the twenty-first century. This will be achieved through schools, universities, communities, and the workplace, using the appropriate means for each.

Expanding Basic Connectivity to People Everywhere. This will be accomplished through the expansion of Community Access Centers, to make Internet and telecommunications services available and easily accessible to everyone. During the last fifteen years, more than 1,500 Information Centers have been established, of which more than 600 are in villages. GOE will also invest in research and development in order to tailor services and products for the poor and illiterate.

Creating More Affordable Access to Information Tools. This program intends to reduce taxes and customer fees for accessing new technologies, to support new technologies and techniques that will enable fast access in rural areas, and to subsidize connectivity to remote areas.

Creating new Opportunities for SMEs through E-Commerce and E-Business. This is to be achieved by encouraging the development of micro-enterprises and small businesses that harness the power of new information and communication technologies, as well as by developing venture-financing sources that can drive innovation.

Fostering Policy, Regulatory Policy and Network Readiness. This will be accomplished by developing policies, regulations, and practices that will encourage private sector investment, while harvesting the full social, cultural, and economic benefits of the Internet, and other information and communication technologies.

Enhancing Financial Infrastructure. A prerequisite for more openness to the new technologies is building a less "cash" dependent economy and restructuring the financial sector.

Programs and Projects

The Egyptian government is committed to

several programs and projects, which would strengthen IT application and diffusion. These include introducing computers into public schools, promoting more private education and establishing a number of private universities and institutions to expand the absorbent capacity of higher education. Egypt has also launched two TV broadcasting satellites. Other projects relate mainly to infrastructure, human resource development and access centers for citizens.

Infrastructure

- Enhancing the communication infrastructure including telephone mainlines, mobile lines and Internet access. This is being done by reducing the cost of communication, which will eventually lead to a growth in telephone ownership and Internet access across the country.

- A new digital network is being laid down to allow faster, cheaper and better connectivity, locally and internationally.

- Computer density: the government plans to increase the number from 947,000 computers today to reach 3.3 million by the year 2005, meaning the average growth rate will be around 29 per cent per year.

- Internet Access: In January 2000, there were 500,000 users. The government plans to raise this number to five million over the next five years, i.e. an average growth rate of around 59 per cent per year. It also aims at providing Internet access for university students, in schools and through Public Access Points.

- The Digital Internet Backbone has been licensed to a private sector company to build the latest state of the art network around Egypt.

- An application to translate English into Arabic on the net is being undertaken, allowing people with little English to browse English web sites easily. A private sector company has created a web site allowing Arabic Internet users to translate all English content online.

Human Resource Development

The GOE has launched a number of programs to introduce the new technologies to children, schools and professionals. The goal is to enhance Egypt's human capital base, and to become a regional leader in IT skill formation and application. The program includes the following:

The GOE has launched a number of programs to introduce the new technologies to children, schools and professionals.

- *Computers in schools.* A national project has been adopted to equip all schools with computers. The program aims to build a computer-based training lab in each primary and preparatory school and to build a computer-training lab in each secondary school. More than 20,000 schools are already equipped with computers and more than 1,500 secondary schools with computer labs. Instructor training is undertaken using a videoconference network covering all the governorates of Egypt.

- *Twenty-first century kids clubs.* This program provides children in the age bracket 6-18, with Internet connectivity in a friendly environment. The club is intended to provide education to children whereby they learn by playing. More than fifty clubs have been established during the last two years, and it is planned to build an additional 1,000 clubs by the year 2005.

- *A Computer for each university student.* An initiative adopted by the Ministry of Higher Education will finance student purchases of computers by installments of less than US$20 per month. Through this initiative, it is expected that more than one million students will buy computers. The Ministry has signed agreements with software companies to provide original software to students at an annual nominal fee of US$30 for all software packages necessary for their work.

- *Information Technology Institute (ITI).* IDSC has built this world-class center for state of the art training in technology for university graduates in a competitive environment. ITI graduates are internationally recognized.

A national project has been adopted to equip all schools with computers.

The Ministry of Communication and Information Technology is implementing a national training program to provide different levels of IT training.

- *Training for government employees.* IDSC is playing a national role in providing IT training for government employees. More than thirty-five training centers have been established across the country with at least one training center in each governorate.

- *The National Training Program.* The Ministry of Communication and Information Technology is implementing a national training program to provide different levels of IT training: This provides professional training for 5,000 trainees per year in co - ordination with international training institutes; and general training for computer usage for 200,000 trainees per year.

- *Computers for the handicapped.* IDSC has established seventeen centers in different governorates to provide computer training for the handicapped. These centers have so far graduated more than 3,000 handicapped people.

Additionally, the Institute of National Planning (INP), CAPMAS, and the Institute of Statistics play an important role in building up human capabilities in IT through programs in computer techniques, software packages, and Internet use. These programs are usually short-term (2-3 weeks) and delivered for moderate fees paid by the trainees. INP, for example, has been organizing such programs since the early 1960s. However, INP activity in this respect has been intensified with the spread of PCs and software packages. For example, during the 1990s, the average yearly number of programs run by INP amounted to ninety programs with an annual average of 1,700 trainees.

Mass Access Centers (MAC)

This consists of a number of projects and initiatives implemented jointly by the government and the private sector to allow mass access to the Internet through different approaches. The Program includes:

- *Technology Access Community Centers (TACC).:* The project is co-funded by UNDP and the government of Egypt to establish access centers for small and medium enterprises. Currently, three centers have been established outside Greater Cairo and have proved to be of high value to the community. They provide training, Internet accessibility and basic office services. It is planned to expand these centers to cover all areas of Egypt.

- *Youth Centers.* This is a project to upgrade existing youth centers to provide Internet connectivity and IT training for youth. The program includes upgrading 120 centers this year and training more than 120,000 people on the Internet.

- *Internet Road Shows.* An initiative by IDSC to build a mobile access center to tour untapped areas and inspire people to interact with the Internet. The first road show took place during the winter vacation of 2000. During the summer of 2001, a Nile boat show provided exposure to the Internet to villages on the borders of the Nile.

Globalization and Technology

If globalization means time-space compression in the context of technology exchange and transfer, especially from North to South, supported by free market mechanisms without barriers - or with the least possible economic and legal barriers – a globalization of technology will be the actual evidence that this is being accomplished. Nonetheless, under globalization the supply of technology is subject to an imperfect market ranging from monopolistic competitiveness to the oligopoly and monopoly practiced by gigantic actors at the international level. Accordingly, one might argue that the free transfer of technology, or of innovation in particular, is far from being the reality.

If globalization means time-space compression in the context of technology exchange and transfer, globalization of technology will be the actual evidence that this is being accomplished.

In recent years three main factors have contributed to restricting technological mobility at the international level:

- *The technological factor concerns the intensity of innovation.* This is concentrated in a few countries allowing them to increase their monopolistic control, and their capability of capturing technological rents.

- The economic factor or the increasingly enormity in the size of already gigantic

firms through integration, acquisition and strategic alliances.

- The legal factor as manifested in a new law for the international trade of technology in the context of the TRIPS [Trade Related Intellectual Properties] agreement that guarantees the protection of innovations. These are usually owned by rich developed countries that sell them to poor developing countries who are in real need of these types of products.

While these three factors apply to technology at large, they will be discussed in detail through a case study of the pharmaceutical products market.

Restrictive Globalization in Pharmaceuticals

An investigation of the above-mentioned restrictive factors affecting the globalization of technology in the field of pharmaceutical manufacturing and trading reveals the following:

The Technological Factor.

From the purely technological viewpoint, a pharmaceutical product goes through the following main phases:

1. **Research and Development (R&D),** which itself consists of three sub-steps: basic research; applied research; and experimental development. It is estimated that the two latter steps absorb 85 per cent of the total costs in this industry. This shows their relative importance in the pharmaceutical industry.

2. **Pharmaceutical Manufacturing,** which is in turn divided into two steps:

   a. Manufacturing of pharmaceutical materials, whether from natural or synthetic sources.

   b. Pharmaceutical formations, or manufacturing the preparations in their various forms (syrup, tablets, capsules, ampoules, etc.) capable of dealing efficiently with diseases, and to meet the needs of different patient groups.

   In relation to these steps there is another important dimension in the manufacturing process of pharmaceuticals, namely, the manufacturing of the machines and equipment necessary to produce the materials and preparations.

3. **Post-Manufacturing:** the supervision of medicines by the competent government authorities, whether through research on the degree of bioavailability or toxicity, or through experiments with the medicine upon patients over different periods of time, doses, etc.

It is noteworthy that a medicine would take about ten years to be placed on the market, starting from R&D, through medicine design, extraction of the effective substances, standardization, and clinical experiments, and requires expenditures ranging between US$40 million to US$250 million. However, some would argue that these figures are overestimated in order to put off likely competitors, especially in developing countries. Nonetheless, this does not deny the fact that a very high level of 'critical mass' is technologically necessary to start in this industry.

The Economic Factor

The market structure of pharmaceuticals is characterized by the dominance of a few enormous firms over the whole process of medicine manufacturing. In general, internationalized production at the level of multinational firms shows a tendency towards deepening the oligopolistic trait of the pharmaceutical industry. This tendency is expressed by two types of operation: integrations and acquisitions; and strategic alliances.

The market structure of pharmaceuticals is characterized by the dominance of a few enormous firms over the whole process of medicine manufacturing.

Mergers and Acquisitions

Merger and acquisition operations represent the driving force of FDI nowadays. Most investments have recently taken the form of Merger of companies, or the acquisition of all or some of the shares of a company, or several, by a transnational corporation. Merger and acquisition are also among the principal features of privatization. The pharmaceutical and chemical industry was considered in 1999 one of the most

important five industrial sectors in terms of Merger and acquisition operations across borders. Two of the most important objectives of these operations are increasing market power, and supporting innovation strategies.

The cost-benefit analysis of these Merger and acquisition operations is debatable. Many writers believe that their negative implications for developing countries outweigh their benefits especially with respect to:

1. **Maximizing market power.** The oligopolistic trait of the pharmaceutical market increases the ability of firms to influence the pricing system. Consumer choice and welfare therefore become endangered, and the distorted prices are inefficient in allocating resources or distributing incomes. If the good (medication) and the service (medical treatment) are inelastic with respect to price and income, the negative impact of an oligopolistic market on consumers, society, and the whole economy will be more severe.

2. **Impact on invention.** Merger of firms enables them to benefit from economies of scales and from external economies. In addition, it allows firms to allocate more financial resources to R&D, and to establish a larger base of human skills in the scientific-technological area. However, integration and acquisition operations might have negative implications on SMEs specialized in innovation, known as start- ups, especially in the pharmaceutical sector. The increasing power of large firms allows them to exploit the yield of small firms' efforts, integrate it into their invention circuit, and thereby get the larger share in the rent coming from technological scarcity.

Merger of firms enables them to benefit from economies of scales and from external economies not only face firms working from an economic perspective, but also countries working from a strategic one.

In general, major pharmaceutical firms (less than twenty) seize more than 50 per cent of total world medicine sales. Glaxo (Merger with Wellcome), Novartis (emerging from the Merger of Sandoz and Cibageigi), Merck (Merger with Lipha) and Hockst (integrated with MMD) come at the top of the list.

It is worth mentioning that the Egyptian pharmaceutical industry is not removed from this global integration-acquisition fever. Britain's Glaxo Wellcome acquired 90 per cent of Amun shares (private sector), thereby increasing its share in the Egyptian medicine market from 6 per cent to 10 per cent and becoming the seventh largest pharmaceutical firm in Egypt.

Strategic Alliances

Strategic alliances are concluded at the level of R&D or promotion and marketing, in order to form blocks able to reduce expenditures, increase revenues, and maximize profitability rates. Strategic alliance agreements in the technological area can be undertaken with independent, university, or government research centers, or between large firms. The agreements often focus on certain areas (genetic treatment, antibodies, neurological treatment etc). The Egyptian pharmaceutical industry has not yet entered into this type of exercise.

Finally, the enlargement of pharmaceutical industry actors, who are concentrated in a small number of firms belonging to a limited number of nationalities (USA and some European countries), is coupled with influence over the organs of state through intervention in public policy to organize and mobilize the pharmaceutical industry. This is accomplished through a number of tools, among which are government and military R&D contracts, medicine registration, supervision, and pricing.

It could therefore be argued that developing countries not only face firms working from an economic perspective, but also countries working from a strategic one. Mostly these two perspectives overlap, for example when the ex-president of Pfizer undertook the responsibility for the preparation of American trade policy with respect to intellectual property, and eventually succeeded in formulating an international agreement in this area in the context of the Uruguay Round.

The Legal Factor

The core of globalization is the elimination of all barriers and the opening of markets to the free movement of goods, services, capital, knowledge, and skills across different countries. In the TRIPS agreement, the legal formulation of commitment to liberalization is clear in two articles that are concerned with the national treatment (NT) principle and the most favored nation (MFN) rule. Hence, all countries that have signed this agreement, including Egypt, are committed, with very few exceptions, to offer all member countries treatment equal to that given to their own citizens, and to extend the privileges provided to any other country to third parties.

However, the agreement includes transitory arrangements related primarily to exemption periods and its application in favor of developing countries, economies in transition, namely the East European countries, and the least developed ones. All member countries were allowed to suspend implementation of TRIPS rules for a year starting from the date the WTO agreement took effect. In addition, developing countries were given the right to put off the date of implementation of the present agreement's rules for another four years, to 31 December 1999, without being exempted from the commitment to the MFN rule and the NT principle.

Moreover, countries whose laws do not allow for patents in certain technological areas are allowed to delay their commitment to invention patent rules in these areas, even after the allowed grace period (four years). It is important to note that the protection covering patents encompasses both products and methods of production.

The present Egyptian law of patents, Law No. 132/1949, which has been adjusted several times, exempts medicine from the protection covering other technological areas, by providing patents to the method of production but not to the product itself. This means that the TRIPS agreement allows Egypt to postpone for five years the implementation of the rules for pharmaceutical and food chemical products, areas that have not yet been covered by protection.

The GOE has already used this license and has put off its commitment to TRIPS rules for another five years starting from the end of the four-year grace period on 31 December 1999. This means an extension of the grace period until 31 December 2004. Moreover, the government intends to integrate this into the draft of the intellectual property law, giving particular attention to patents concerned with medicine and agricultural food chemicals.

The most important rules of the TRIPS agreement, which surpass all previous international agreements and national laws, can be summarized as the following:

- Enlargement of the boundaries of technological and invention areas covered by protection, and narrowing, thereby, the boundaries of exemptions.
- Unifying the period of protection for inventions, through patents in all technological areas, to twenty years.
- Widening the rights of patentees or those to which patents were transferred, with some conditional regulations such as international exhaustion.
- Restricting the compulsory licensing and the tendency to tighten its conditions, in return for an extension of the protection of confidential or closed data, and of marketing rights whether exclusive or absolute.

TRIPS includes a license to members - in particular developing and the least developed countries - to delay the implementation of the agreement for different periods, in order to implement their commitments towards protection, and to protect their interests in areas such as compulsory licenses and patentee rights. Nonetheless, one important question remains: Are these legal texts sufficient to boost the pharmaceutical industry in the developing countries to achieve one of the most important objectives of human development, namely physical and mental health?

The answer suggested here is that the legislative framework is insufficient. This includes texts of the agreement itself and

The core of globalization is the elimination of all barriers and the opening of markets to the free movement of goods, services, capital, knowledge, and skills across different countries.

What really matters is how qualified the national pharmaceutical industry is to deal with globalization and restricted technology transfer.

those of the new and adjusted national laws with all that they imply for encouraging the development of the technology of national pharmaceutical industry. The Egyptian case is a good example. What really matters is how qualified the national pharmaceutical industry is to deal with globalization and restricted technology transfer.

Today in 2001, Egypt has had six years of the grace period, and is left with only four. So, what has been done, and what will be done in the remainder period? And what are inventors and the makers of technology likely to do?

Transfer of Foreign Technology to the Egyptian Pharmaceutical Industry

There are few studies available on technology transfer to the Egyptian pharmaceutical industry. However, one might argue that public enterprises often produce medicines whose patents have become invalid. These enterprises are also used to producing generic medicines similar to those marketed under well-known trademarks, with the least amount of production generated through know-how or patents. A precise evaluation of the results of using expired patents has not yet been undertaken. On the other hand, the extensive use of patents and trademarks by the domestic private sector, especially by joint and foreign enterprises, has resulted in almost total dependence on licenses from big foreign pharmaceutical corporations.

A recent study pointed to what the United Nations Conference for Trade and Development (UNCTAD) calls "restrictive trade practices" by technology transferring firms, which insist, in general, on the inclusion of restrictive texts in agreements concluded with technology recipients. The study investigated the negative elements of licenses in two particular areas: agreements for final pharmaceutical formulation production; and those for producing materials from pharmaceutical chemicals. Among the most important common negative traits of foreign firms providing technology, are the following:

1. They are not committed to substitute new or upgraded technologies for obsolete ones.
2. They do not provide Egyptian firms with upgraded technical assistance on a regular basis.
3. They stipulate the employment of some of their own personnel.
4. Foreign parties frequently stipulate the transfer of pharmaceutical technology through 'whole package' or 'turn-key'approaches. This does not give sufficient opportunity to local firms to acquire the relevant technological knowledge and skill.
5. The use of technologies that are inappropriate, and sometimes harmful, for the natural environment in Egypt.
6. Foreign parties impose restrictions on the kinds of formulations that can be locally produced, or exported to foreign markets, including Arab and African markets. This is more the case with branches of foreign firms.
7. They impose restrictions, even if indirect, on technology receiving firms undertaking local R&D activities.

How to Deal with the Globalization of Restricted Technology in the Pharmaceutical Sector?

The answer will be approached through an investigation of two main ideas

Admit the Globalization Challenge. Since globalization offers opportunities but at the same time implies threats to all sectors in the national economy, one should accept the challenge by designing a comprehensive strategy that deals with globalization under the supervision of the national administration. For instance, a pharmaceutical strategy should be derived from a general health strategy that consists of the following:

1. **Disease Prevention Policy.** Especially for diseases that have recently become widespread such as kidney, liver, and heart diseases. This in addition to primary care for the largest population possible.

2. Treatment Policy. This should target particular social groups: the poor; women in difficult social conditions; and young people whether students, graduates, or dropouts.

3. **Medicine Policy.** For pharmaceutical production, import, and public circulation. State intervention in this area should activate the authorities' role in medicine registration, pricing, and control, to stimulate national invention and R&D in the pharmaceutical industry, and to suggest the necessary policies with respect to research contracts, priorities, follow-up and assessment methods, finance and resource recruitment, taxation etc.

4. **Activate Pharmaceutical Scientific and Technological Capabilities and Paths.** This is achieved by adopting various measures.

5. **R&D and Invention.** This should be encouraged in order to achieve breakthroughs in the manufacture of final pharmaceutical products and their means of production. It is necessary, in this respect, to focus on research concerned with the treatment of diseases of special importance to Egyptian society, such as endemic, contagious, tropical, and intestinal diseases, in addition to those other diseases that have become widespread recently. Further, it is necessary to catch-up with the scientific revolution and participate in the production of pharmaceuticals based on biotechnology, especially in areas of special importance to society, such as medication for viral hepatitis, and to extract effective substances from medicinal herbs and plants that are available in the Egyptian and Arab environment. As to development, it should be concerned with improving the characteristics of effective substances of pharmaceutical production in circulation, whether with respect to composition, pharmaceutical form, or effectiveness. Activating R&D requires a change in the orientation of specialized scientific research centers where the work of the scientific staff tends to be mainly for promotion purposes.

6. **Industrial Deepening.** This could proceed through the following paths:

- Manufacturing pharmaceutical raw materials from chemical and biological origins.

- Producing machines and equipment necessary for pharmaceutical factories.

- Expanding and modernizing the existing pharmaceutical industry and related activities especially in the fields of:

  1. Development of pharmaceutical mixtures, requirements, and packing materials and products.

  2. Expanding the production of medications under their generics.

  3. Exploring the production of new medicines using public-property technological methods (of the pre-1995 period). This should be accelerated to achieve the maximum possible before the end of the grace period of the TRIPS agreement.

Activating Research and Development requires a change in the orientation of specialized scientific research centers where the work of the scientific staff tends to be mainly for promotion purposes.

Chapter Six

Globalization and Human Capital

There is a strong interdependence between globalization and its mechanisms, on the one hand, and the labor market with its different national characteristics on the other.

While human development (HD) is generally defined as 'enlarging people's choices', a first step to operationalize this concept is to redefine HD as the 'development of people by people and for people'. Building up human capabilities is a second major step to operationalize the general concept of HD, for the simple reason that building up capabilities is, per se, a development of people. Further, there is no possibility for 'development by people', unless they have the necessary capabilities. Acquiring these capabilities could be seen as partially translating the paradigm of 'development for people'.

Thus, building up human capabilities is a core operational step to achieve HD. This step is essentially the formation of human capital. Employment opportunities are the means by which this capital is recycled to generate, on a larger scale, the different economic, social, political, scientific, technological, and cultural aspects of development.

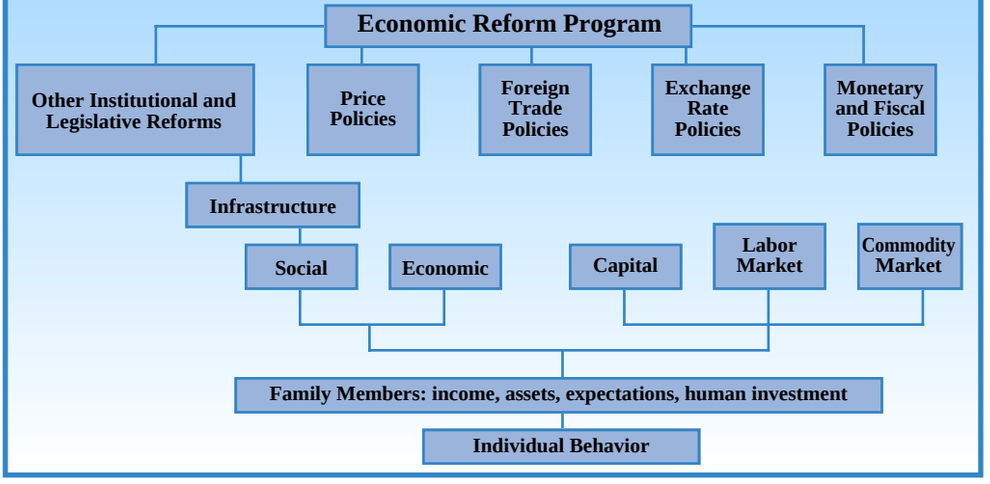
In recognition of the prime importance of human capital and the opportunities for its employment, this chapter aims to investigate the impact of globalization on the Egyptian labor market and to provide some sociopolitical policy guidelines. These could mitigate the likely threats accompanying the integration of the Egyptian economy into the global economy. The role of social capital in confronting the possible negative implications of globalization is covered elsewhere in this Report.

Globalization and the Labor Markets

The anticipated impact of globalization on labor markets is an area of specific concern to many researchers, especially in developing countries. The following factors explain why:

- There is a strong interdependence between globalization and its mechanisms, on the one hand, and the labor market with its different national characteristics on the other. In developing countries, globalization has often been accompanied by the implementation of reform programs, in order to enhance the ability of a country to cope with the mechanisms of the global market, including the adjustments needed to face external shocks. As displayed in Figure (6.1), economic reform implemented at the macro level will eventually impact on the

Figure 6.1 :
The Analytical Framework of Economic Reform Program



individual units of the micro-economy, mainly on households. The impact translates through a network of communication channels at the intermediate level, including the demand side (that is, the demand for the products and the factors of production) and the supply side (that is, the economic structure providing basic productive services and the social structure affecting human investment).

- Economists hold different views on the likely impact of globalization. Some advocate the view that enormous benefits will accrue to developing countries as a result of their increasing integration into the global economy. Gains will come from enhancing the ability of these countries to create new and productive job opportunities following the correction of labor and capital price distortions, and the substitution of limited individual domestic markets for an expanded global market. Other economists fear that globalization will have a negative effect on developing countries in general, and on labor markets in particular. Their analysis is based on the fact that globalization is accompanied by large technological advances that reduce the role of labor, specifically the unskilled labor which constitutes the largest proportion of the labor force in developing countries, including Egypt.

- In the 1980s and during the first half of the 1990s, the foreign direct investment flows capable of creating new productive jobs were largely concentrated in the industrial countries, especially the United States, Europe and Japan. Their share of total flows exceeded 75 per cent, while the share of all developing countries, during the same period, did not exceed 5 per cent, of which two thirds was devoted to ten countries only, mainly in East Asia and Latin America. This trend in the allocation of foreign investment to countries enjoying advanced technology and knowledge, rather than to developing countries characterized by abundant unskilled and low-wage labor invalidates the assumptions of conventional neoclassical theory. The trend is expected to persist and to grow, because the cost of labor is estimated at only 20 per cent of the total production cost of any industrial product.

These reasons, among others, explain why is it important to analyze the actual and potential impact of globalization on the Egyptian labor market. The objective is to trace the implications of globalization which, rather than being simply threats of an economic nature, could spill over into political and social instability.

The Features of the Labor Market in Egypt

Globalization could impact on a number of dimensions of the Egyptian labor market, of which the most important are: the employment level; the demand for labor; the wage level; labor market segmentation; and labor force mobility. However, since the overall condition of the labor market depends on regional, national, and international factors, it is difficult to attribute all observed changes solely to globalization.

Globalization could impact on a number of dimensions of the Egyptian labor market.

The Demand for Labor

(1) The employment/unemployment database in Egypt is incomplete and exhibits some inaccuracy and inconsistency. However, available indicators and other evidence show that the employment level has been declining in line with the implementation of ERSAP policies. Consequently, the rates of both unemployment and underemployment (disguised and undisguised) appear to have been growing considerably during the 1990s. As ERSAP policies are closely related to the globalization process, the growth in unemployment could be attributed to the impact of globalization on the Egyptian economy. However, it is clear that the growth of unemployment has not been due to globalization only. The slowdown, or contraction, of the migration of Egyptian labor to oil-producing Arab countries, and the decrease since the early 1980s in the capacity of the Egyptian economy to create productive jobs sufficient to absorb the increase in the labor force have also been contributing factors.

It is clear that the growth of unemployment has not been due to globalization only.

According to the 1976 and the 1986 census, the open unemployment rate increased from 4.27 per cent to 11.1 per cent between these two periods. This could be an indication of

Of the most significant traits of the Egyptian labor market is the male bias in the demand.

a relationship between high unemployment rates and the increased openness of the Egyptian economy. The population census of 1996 revealed a slight decline in the unemployment rate to 8.9 per cent of the total labor force. But the results of this census have been subject to a number of reservations since they contradict other statistical sources and the implications of people Egypt's macroeconomic performance during the 1990s for the country's labor market. This is demonstrated by the following:

- The results of the Labor Force Sample Survey indicate a sustained trend of increasing unemployment between the mid 1970s and mid 1990s, reaching 11.8 per cent in 1995.

- The same trend is clearly noticeable when comparing Egyptian labor market research of October 1988 with that of 1998, since the unemployment rate increased from 5.4 per cent to 7.9 per cent, an increase of 46 per cent over these ten years. The number of the unemployed has increased in absolute terms from 890,000 in 1988 to 1.27 million in 1998, with an average annual growth rate of 6.6 per cent. This is almost triple the growth rate of the labor force and the working-age population. Although the results of these two studies cannot be compared with other statistical sources, due to differences in definitions and methodologies used, the upward trend of the unemployment rate during the period 1988-1998 does not allow us to conclude that this rate decreased between 1986 and 1996.

- Despite the high level of the previous estimates, it is argued that they still underestimate the unemployment rate in Egypt. Long periods of unemployment lead to a situation of 'discouraged unemployment' in which individuals stop seeking work and are thus excluded from registered unemployment according to the international definition.

(2) It should be noted that one of the most significant traits of the Egyptian labor market is the male bias in the demand for labor. There is a considerable difference in unemployment rates between males and females. A high female unemployment rate of about 24 per cent is observed, especially among educated females, in contrast with a rate of only 5 per cent for males. This implies the waste of an important component in the drive for human development, namely underuse of the increasing rate of educated Egyptian females.

(3) Moreover, the educational level of the Egyptian labor force seems to lead to lower demand, given the increasing globalization of most production activities. The illiteracy rate is as high as 36 per cent among the labor force, and if those who only read and write are added, this ratio jumps to 54.4 per cent. This implies that around half of the labor force cannot deal with the new techniques and rapid technological advances characterizing globalization. Advances in technology lead to the creation of new jobs with high knowledge and skill content, but are also conducive to the reduction or elimination of certain types of job that are numerous in Egypt and most other developing countries. Those jobs performed by unskilled and semi-skilled labor, which constitute the broad base of the labor force in Egypt, will certainly be affected.

(4) Given that Egypt has become more involved in the globalization process since the early 1990s (the beginning of the ERSAP), one could argue that the two major and expected effects of this involvement on the structure of labor demand in the Egyptian market have not yet been realized. Table (6.1) provides evidence for this as exhibited in the distribution of employed persons (15 years and over) by sectors in the three census years 1976, 1986, and 1996:

- Instead of a relative decrease, persons employed in the government increased over the three years, from 17.7 per cent, to 22.4 per cent, and then to 28 per cent of total employed persons.

Table (6-1)
Distribution of Employed Persons by Sectors (15 years and More)

Sectors	1976		1986		1996		Average rate of growth%	
	000.s	%	000.s	%	000.s	%	1976-86	1986-96
Government	1.786	17.67	2.545	22.36	4.374	28.02	3.61	5.56
Public Enterprises	964	9.54	1.287	11.31	876	5.62	2.93	-3.77
Private Enterprises	7.355	72.78	7.537	66.20	10.336	66.21	0.24	3.21
Foreign Enterprises	0	—	10	0.10	23	0.15	—	8.23
Unclassified	0	—	4	0.04		0.00	—	-37.89
Total	**10.106**	**100.00**	**11.385**	**100.00**	**15.611**	**100.00**	**1.20**	**3.21**
Urban	n.a	—	5.446	47.84	7.214	46.21	—	2.85
Rural	n.a	—	5.939	52.16	8.397	53.79	—	3.52
Male	n.a	—	10.343	90.85	13.526	86.64	—	2.72
Female	n.a	—	1.041	9.15	2.085	13.36	—	7.19

- In terms of the relative importance of persons employed in the private sector, this decreased from 72.8 per cent in 1976 to 66.2 per cent in 1986, remaining at the same level in 1996. It had been expected to increase between the last two census years due to privatization and the lead given to the private sector.

- Foreign enterprises continued, between 1986 and 1996, to contribute little to employment (0.1 per cent and 0.15 per cent respectively), although this contribution was expected to be higher in response to the incentives provided to such enterprises.

- As expected, persons employed in public enterprises decreased from 11.3 per cent in 1986 to 5.6 per cent in 1996.

In spite of fears that privatization would be biased against female employment, the relative share of females in total employed persons increased from 9.5 per cent in 1986 to 13.4 per cent in 1996.

In spite of fears that privatization would be biased against female employment, the relative share of females in total employed persons increased from 9.5 per cent in 1986 to 13.4 per cent in 1996.

(5) The structure of demand for labor by different occupation showed some important changes over the three censuses. Most of these changes coincide with the transition to a privatized market economy, although they do not reflect significant changes in the technological level of the national economy. Accordingly, table (6.2) shows that:

Table (6-2)
Distribution of Employed Persons by Skills (15 years and More)

Occupation	1976		1986		1996		Average rate of growth%	
	000.s	%	000.s	%	000.s	%	1976-86	1986-96
Professionals, Scientists & Managers	826	8.60	1.588	13.95	4.370	28.00	6.74	10.65
Clerical Workers & Like	700	7.29	998	8.77	1.123	7.20	3.61	1.18
Sales & Services Workers	1.442	15.01	1.428	12.54	1.456	9.33	-0.10	0.19
Workers in Agriculture & Fisheries	4.033	41.95	4.302	37.79	4.676	30.00	0.65	0.84
Production Workers & Like	2.052	21.35	2.769	2.769	3.860	24.73	3.04	3.38
Unclassifiled	557	5.80	299	299	125	0.80	-6.04	-8.34
Total	**9.613**	**100.00**	**11.385**	**11.385**	**15.611**	**100.00**	**1.71**	**3.21**
Urban	n.a	—	5.446	5.446	7.214	46.21	—	2.85
Rural	n.a	—	5.939	5.939	8.397	53.79	—	3.52
Male	8.915	92.74	10.343	10.343	13.526	86.64	1.50	2.72
Female	698	7.26	1.041	1.041	2.085	13.36	4.08	7.19

One of the important changes in the Egyptian labor market, especially under the ERSAP, is the decrease in real wages

- The share of professionals, scientists and managers in total employed persons increased from 8.6 per cent to about 14 per cent and to 28 per cent respectively,
- Clerical workers and the like increased from 7.3 per cent to 8.8 per cent, and then decreased to 7.2 per cent,
- Sales and services workers decreased from 15 per cent to 12.5 per cent and to 9.3 per cent,
- Workers in agriculture and fisheries decreased from 42 per cent to 37.8 per cent, and then to 30 per cent,
- Production workers and the like increased from 21.4 per cent to 24.3 per cent and then to 24.7 per cent.

The Real Wage Level

One of the important changes in the Egyptian labor market, especially under the ERSAP, is the decrease in real wages after a long period of increase between the mid 1970s and the mid 1980s as an outcome of the impact of the oil boom. Data shown in Table (6.3) reveals that real wage rates in all economic activities during the mid 1990s hardly exceeded two-thirds of their level in the mid 1980s. It can be also observed that the deterioration in the level of real wages

Table (6-3)
Trends in Average Nominal and Real Wages by Sectors and Economic Activity, 1987-1996

Economic Activities	Sectors	1987		1994		1996		% of change 1987-1996	
		N	R	N	R	N	R	N	R
Agriculture and Fisheries	Pu	27	25.1	56	17.8	74	19.8	174.1	-21.1
	Pr	17	15.8	51	16.3	59	15.8	247.1	0.0
	T	25	23.3	54	17.2	64	17.1	156.0	-26.6
Mining and Quarrying	Pu	49	45.6	109	34.7	129	34.5	163.3	-24.3
	Pr	64	59.6	249	79.3	278	74.3	334.4	24.6
	T	59	54.9	165	52.6	181	48.4	206.8	-11.8
Manufacturing	Pu	38	35.4	79	25.2	102	27.3	168.4	-22.9
	Pr	37	34.5	72	22.9	76	20.3	105.4	-41.2
	T	38	35.4	77	24.5	93	24.9	144.7	-29.7
Electricity, Gas and Water	Pu	30	27.9	64	20.4	88	23.5	193.3	-15.8
	Pr	33	30.7	95	30.3	119	31.8	260.6	3.6
	T	30	27.9	65	20.7	88	23.5	193.3	-15.8
Constructio	Pu	40	37.2	85	27.1	100	26.7	150.0	-28.2
	Pr	46	42.8	144	45.9	93	24.9	102.2	-41.8
	T	40	37.2	88	28.0	100	26.7	150.0	-28.2
Trade and Hotels	Pu	34	31.7	84	26.8	106	28.3	211.8	-10.7
	Pr	36	33.5	66	21.0	82	21.9	127.8	-34.6
	T	34	31.7	77	24.5	83	22.2	144.1	-30.0
Transport and Storage	Pu	34	31.7	83	26.5	111	29.7	226.5	-6.3
	Pr	49	45.6	123	39.2	119	31.8	142.9	-30.2
	T	36	33.5	88	28.0	112	29.9	211.1	-10.7
Finance, Insurance and Bus. Serv.	Pu	38	35.4	95	30.3	107	28.6	181.6	-19.2
	Pr	112	104.3	210	66.9	230	61.5	105.4	-41.0
	T	49	45.6	120	38.2	170	45.4	246.9	-0.4
Soc. and pers. Serv.	Pu	39	36.3	62	19.8	73	19.5	87.2	-46.3
	Pr	31	28.9	63	20.1	88	23.5	183.9	-18.7
	T	33	30.7	63	20.1	94	25.1	184.8	-18.2
All Activities	Pu	37	34.5	81	25.8	103	27.5	178.4	-20.3
	Pr	42	39.1	84	26.8	91	24.3	116.7	-37.9
	T	38	35.4	82	26.1	99	26.5	160.5	-25.1

Notes: (1) Pu=Public, Pr=Private, T = Total, N=Nominal, R = Real.
(2) Real Wages are calculated using Urban CPI for year 1986 = 100; National Bank, Economic Bulletin, vol. 51, No. 3, 1998.
(3) Public Sector includes Public Enterprises.
(4) Private Sector: Etablishments using 10 workers or more.
(5) In 1996 the classification of Economi Activities is different in CAPMAS data from previous years. In that year the data are more detailed for Agriculture, Trade, Finances, Social and Personal Services. For the purpose of accurate comparison, we calculated the average nominal wage in each of the four activities as an average of the sub-activities in that year.

was more severe in the private sector, where it declined by almost 38 per cent, compared to the 20 per cent decline in the public sector. Nonetheless, nominal wages tended, in general, to increase by about 160 per cent during the period in question.

Moreover, data in Table (6.4) points to some discrimination against women in the wage level. A female worker obtains no more than 83 per cent of the wage level of a male doing the same job. However, this discrimination is relatively less in the public sector compared to the private sector.

Market Segmentation

The Egyptian labor market suffers from several types of segmentation, namely public/private, male/female, and formal/informal. The latter is considered the major characteristic of this market. The informal labor market appears to be the last resort for all those not absorbed by the formal market. This is because the majority of the unemployed in Egypt, especially in the absence of a comprehensive system of unemployment insurance, cannot afford to stay without work and a source of income. There are many difficulties, statistical and otherwise, concerning the collection of data on the activities within this sector or the number of those employed in it. However, estimates provided by the most recent study of the degree of elasticity and competitiveness in the Egyptian labor

The informal labor market appears to be the last resort for all those not absorbed by the formal market.

Table (6-4)
Trends in Average Nominal and Real Wages by Economic Activity, 1990-1996

Economic Activities	Gender	1996		1996		% of change 1987-1996	
		N	R	N	R	N	R
Agriculture and Fisheries	M	34	19.0	65	17.4	91.2	-8.4
	F	32	17.9	54	14.4	68.8	-19.6
	F/M	0.94		0.83		—	
Mining and Quarrying	M	114	63.7	182	48.6	59.6	-23.7
	F	105	58.7	169	45.2	61.0	-23.0
	F/M	0.92		0.93		—	
Manufacturing	M	56	61.3	97	25.9	73.2	-17.3
	F	38	21.2	67	17.9	76.3	-15.6
	F/M	0.68		0.69		—	
Electricity, Gas and Water	M	39	21.8	88	23.5	125.6	7.8
	F	46	25.7	90	24.1	95.7	-6.2
	F/M	118		1.02		—	
Constructio	M	55	30.7	99	26.5	80.0	-13.7
	F	50	27.9	108	28.9	116.0	3.6
	F/M	0.91		1.09		—	
Trade and Hotels	M	51	28.5	84	22.5	64.7	-21.1
	F	42	23.5	76	20.3	81.0	-13.6
	F/M	0.82		0.90		—	
Transport and Storage	M	53	29.6	111	29.7	109.4	0.3
	F	55	30.7	117	31.3	112.7	2.0
	F/M	1.04		1.05		—	
Finance, Insurance and Bus. Serv.	M	75	41.9	174	46.5	132.0	11.0
	F	85	47.5	149	39.8	75.3	-16.2
	F/M	1.13		0.86		—	
Soc. and Pers. Serv.	M	55	30.7	99	26.5	80.0	-13.7
	F	34	19.0	100	26.7	194.1	40.5
	F/M	0.62		1.01		—	
All Activities	M	57	31.8	103	27.5	80.7	-13.5
	F	46	25.7	83	22.2	80.4	-13.6
	F/M	0.81		0.81		—	
All Activities							
Public	F/M	0.89		0.92		—	
Private	F/M	0.69		0.68		—	

Notes: (1) M= Male, F=Female, N=Nominal, R=Real.
(2) Real wages are calculated using urban CPI for year 1986 = 100 ; National Bank, Economic Bulletin, volume 51, No. 3, 1998.
(3) For Classification of Economic activities see note (5) Table 6.3.

market show that there has been a great increase in the number of those joining the informal labor market, especially during the 1990s, when it ranged between 4.8 and 5.2 million individuals. This suggests that the employment level in the informal labor market had almost doubled since 1986.

The Egyptian informal sector has played a pivotal role as an absorber of the shocks that hit the formal labor market during the 1990s.

The Egyptian informal sector has played a pivotal role as an absorber of the shocks that hit the formal labor market during the 1990s. But it should be remembered that those employed in the informal labor market do not enjoy the benefit of legal protection on working hours or minimum wage levels. They also lack all forms of insurance or social security, and have to contend with the instability that characterizes this sector. Wage levels tend to fall as the number of those joining the sector increase, with fierce competition among them. The sector is increasingly becoming a reservoir of unskilled and low-wage labor, increasing the severity of poverty and social marginalization, especially in urban areas, with dangerous economic and social implications.

Labor Force Mobility

The phenomenon of globalization is synonymous with a higher degree of liberalization and the abolition of all barriers deterring the flow of commodities or factors of production across national borders. This can suggest a higher degree of mobility for individuals, parallel to the liberalization of goods, services, and capital flows. However, for at least two reasons, this, in fact, is not supported by empirical evidence:

(1) Some analysts have noted that globalization will result in a distinction between three different categories of the labor force, regardless of nationality:

- A limited category, not exceeding 10 per cent of the total labor force of the world, qualified to fill any job opportunity at the international level because of high caliber and skills, and the ability to innovate. Since multinational companies will compete to attract this category, the wages offered and promotion opportunities will be very high.

- A category of between 30 to 40 per cent of the total labor force of the world, characterized by a lower level of skills compared to the first category. This category will have job opportunities within the borders of their country, but under the 'hire and fire' principle will lack any guarantee of job stability. There will also be fewer chances for promotion to higher wage levels.

- The last category, involving all unskilled labor, will only be able to find temporary and unstable employment, with extremely low wage levels due to severe competition whether within their country or from outside.

(2) The most important globalization mechanism, namely the General Agreement on Trade in Services (GATS), is likely to foster inequality in labor mobility across countries. The liberalization of services includes, among other things, labor mobility from one country to another in order to provide certain services. This might lead to the movement of labor from developed industrial countries to developing countries because of the relative and competitive advantage of their highly sophisticated skills. This would increase the pressures imposed by globalization on developing countries, including Egypt. However, it should be noted that the agreement allows each country to choose certain service sectors in which it commits itself to liberalization in a way that seeks to mitigate negative impact. Egypt, for example, promised to fulfill certain commitments in specific sectors, namely construction, financial and banking services, tourism, and transportation.

The most important globalization mechanism, namely the General Agreement on Trade in Services (GATS), is likely to foster inequality in labor mobility across countries.

The same result could also apply in the case of the EU Partnership Agreements, where the European side aims to limit the movement of labor from southern to northern Mediterranean countries, by improving job and wage opportunities, especially for labor with limited-skills, in Europe proper. Further, the opportunities for Egyptian workers to move within the borders of the Arab world have decreased and are not

comparable with those witnessed during the petroleum boom. It would therefore be unwise to expect Arab oil-producing countries to continue to absorb the surplus labor force of other Arab countries such as Egypt, Jordan and Yemen. The movement of labor will be limited and concentrated in the highly skilled labor category, and then only in a few fields where no substitution by national or Asian labor is possible.

In addition, recent empirical evidence on the Egyptian labor market shows a tendency towards using foreign labor, especially those who are highly skilled and capable of dealing with new advanced production methods. Foreign labor in Egypt is mainly from Asia, given high quality performance and work ethic. This phenomenon is noticeable in the construction and medical service sectors. There is also an increasing inflow of unskilled labor from Sudan, Ethiopia and Eritrea, working mainly in jobs related to domestic services.

We might therefore conclude that contrary to first impressions, globalization will increasingly put constraints on employment and on labor force mobility, with the exception of small numbers of the highly skilled who constitute a special class of workers.

The Spread of Poverty and Social Exclusion

In spite of the assertion that there is no direct relationship between the impact of globalization on the labor market and poverty, it appears that the complex interaction between the forces of change is likely to have a negative impact on the standard of living of the majority of the Egyptian labor force. Poverty is essentially a process of social exclusion that prevents large categories of citizen from acquiring economic, human and social assets. If, as some economists believe, the increasing openness of the Egyptian economy has helped, through different mechanisms, reinforce the phenomenon of exclusion over the last ten years, one could argue that in Egypt, as a developing country, globalization, by definition, will help integrate only a small elite into the process of production and capital accumulation of the global economy. These few beneficiaries, or the labor "aristocracy", enjoy a higher standard of living than that attainable by the average income level. Further, the number of those marginalized and excluded from the production and income cycles is on the increase, to the extent that poverty is associated with economic and social exclusion.

The movement of labor will be limited and concentrated in the highly skilled labor category.

Social Policies Supporting the Labor Market

In view of the negative spin-offs of globalization, the GOE has recognized the need to pursue new social policies that aim to mitigate adverse effects, especially on the poor and vulnerable groups in society. These policies vary in their nature, objectives and in the groups benefiting. The main lines of the social policies proposed are the following:

Short-Term Policies

In the short run, two main types of program can be distinguished. The first cover the establishment of appropriate social safety nets, while the second focus on the development and efficiency of employment offices to more effectively match unemployed job seekers with available job vacancies.

The Social Safety Net. The term 'social safety net' (SSN) is widely used in the literature dealing with ERSAP in developing countries. Most empirical studies have shown that the implementation of ERSAP programs not only deepens the severity of poverty, but also generates new groups of poor, whose standards of living deteriorate as a result of the programs. Thus, the SSN has become an additional component to the two main elements of reform, namely the stabilization program and the structural adjustment program, in order to give these programs a human face.

There are three main components to Egypt's SSN. The first is consumer food subsidies. The second relates to the Social Fund for Development (SFD), established to provide financial assistance, and create job opportunities, for certain categories such as female-headed families, labor returning to Egypt after the Gulf war, and workers hit by privatization programs. The

Poverty is associated with economic and social exclusion.

third component consists of all forms of insurance and financial assistance provided by the Ministry of Social Affairs to help the poorest families and individuals and those with special needs, such as the disabled.

The SSN, though necessary to protect the poor, especially under the structural adjustment program and the increased openness of the economy, is not a sufficient mechanism to eliminate poverty, unemployment and marginalization. An SSN, by itself, can neither cure these ills nor address their actual causes. Instead it addresses itself to alleviating the symptoms only. Thus, a SSN should be considered a complementary procedure only, undertaken within the more general and inclusive economic and social framework of each country.

Employment policies should target, in the medium-term, the development and upgrading of the capabilities and skills of unemployed workers.

Active Labor Policies. Lack of information and inappropriate mechanisms for matching job opportunities and the accumulated stock of unemployment characterize the Egyptian labor market, reducing market efficiency in allocating human resources. What is needed is the effective development of the labor market information system. The provision of timely, updated and accurate databases is a prerequisite for monitoring developments in the labor market, and, consequently, devising sound policies.

It is also necessary to enhance the role of employment agencies in the Egyptian labor market. This can be achieved by extending the scope and services of employment offices affiliated to the Ministry of Labor Force and Training, increasing the efficiency of their employees, and using state of the arts techniques for speedy information flow. Private sector agencies could also help. The assistance of international institutions specialized in this area, such as the International Labor Organization, and the Arab Labor Organization, could help in identifying best practices.

Medium-Term Policies

Employment policies should target, in the medium-term, the development and upgrading of the capabilities and skills of unemployed workers. In addition, policies should be accompanied by 'training', so that training becomes the principal mechanism through which the labor market improves the qualifications of job seekers, and increases the skills and productivity of employed workers, thereby raising their living standards.

This highlights the importance of complementary roles between the state and the private sector in designing and formulating new training policies, as well as in providing the necessary resources for their implementation. This should be a long-term process that encompasses all types of training (transformation training, efficiency-upgrading training, continuous training, etc) and which would enable labor not only to acquire a job at a given point in time, but also to increase employability for more productive and higher-wage jobs throughout working lives (see Box 6.1).

Long-Term Policies

To successfully confront the likely negative impact of globalization on the Egyptian

Box (6.1)

The National Program for Employment

The Government of Egypt is currently designing a National Program for Employment in cooperation with UNDP, in order to find a prompt and effective solution for the accumulated stock of the unemployed, and to address the increasing number of new entrants to the labor market. According to a recent study, this number has almost doubled over the second half of 1990s, to reach 800,000 per annum. One of the main pivots of the proposed program is the foundation of a National Fund for Training with tripartite participation from the state, the private sector, and employees. The fund is to be financed partly by the government, and partly by charges paid by private sector firms with more than thirty workers, in addition to the donations granted by international institutions and agencies. The fund aims to formulate and develop training programs to address the new needs of the Egyptian and other labor markets.

labor force in the long run would require the following:

Sustainable and Equitable Economic Growth: Given the on-going globalization process and fierce competition among different countries, the pursuit of economic policies aiming for high growth rates becomes a necessity. Howeverthis is not a sufficient condition to achieve the societal targets of economic growth. What really matters is the nature of growth and whether its benefits are equitably distributed or not.

In order to achieve sustainable and equitable growth, the nature of economic growth and the sectors generating it in Egypt may need to be reconsidered. This may mean diversifying sectors of production and concentrating on higher productivity activities in the commodity sector, while enhancing the performance of the service sector in order to be locally and internationally competitive. Economic growth should also create adequate productive and income generating jobs that allow households to meet their basic needs. This does not suggest the use of labor-intensive production methods across the board, given considerations of competitiveness and the nature of available resources; technology-intensive production in specific areas accelerate growth and help break into new production areas. This implies the need for forward and backward linkages between mega industrial projects and small and medium clusters of industries. These linkages would stimulate small firms to raise their efficiency and to comply with international quality standards, thereby ensuring the marketing of their products internationally.

Finally, some mechanism should assure the equitable distribution of the benefits of economic growth among all groups and classes. Development experience, supported by analytical and applied research, indicates that the trickle-down effect is not enough to guarantee the transmission of benefits to all individuals in a society. There is a role for the state in the income redistribution process in favor of poor groups, to raise their income levels, and thereby to acquire productive social and human assets.

Support for Human Development. The only way to take advantage of the opportunities that are likely to result from globalization is to develop human knowledge and capabilities, and to establish the infrastructure appropriate to the employment of these capabilities in the production process. This has to be achieved in a way compatible with international technological breakthroughs.

Political, Institutional and Legislative Reform. The success of growth with equity policies, although necessary for the upgrading of human capabilities, is not sufficient. These policies need to be associated with reform in political, institutional, and legislative areas. One of the most important reform aspects should be to enable citizens, especially vulnerable groups (the poor, low-income groups, women), to effectively participate in the decision making process at the local, regional, and national levels.

Finally, it is believed that implementing efficient and successful reform policies necessitates the creation of a ‘new social contract’ to provide a solid base for an Egyptian development model capable of meeting the challenges of globalization. This ‘contract’ would mean the establishment of a new set of relationships between the government, the private sector, and civil society institutions of a complementary rather than acompetitive or exclusive, nature, and which would assure the maximum social protection.

It is believed that implementing efficient and successful reform policies necessitates the creation of a ‘new social contract’ .

Chapter Seven

Egypt's Social Capital and Arab Economic Integration

Social capital is one of the most important assets of nations.

Social capital is one of the most important assets of nations. Indeed, it is inseparable, not only from the demographic characteristics of any given population, but also from cultural and moral values, behavioral trends, organizational structure, gender attitudes, possessions, and all other societal mechanisms dealing with the different aspects of life.

These various and complex aspects of life have been subject to continuous and generally gradual change worldwide over the past centuries. But since the beginning of the 1990s, the accelerated process of globalization has speeded the process of change disruptively in a large number of countries. Wherever this disruption takes place, sociopolitical stability is endangered and human development itself threatened. So far, Egypt has largely escaped this threat, but there is no guarantee that this will remain the case given increasing involvement in the process of globalization. Enhancing Egypt's social capital can provide a safeguard against this danger.

Social capital and regional integration impact mutually on each other.

Different forms of regional integration also have an impact on the social capital of those countries, and/or societies, involved in the integration process. Indeed, social capital and regional integration impact mutually on each other. Regional integration is usually greatly facilitated when all the elements that constitute social capital are in harmony, or are shared to some extent by the countries involved, while social capital's constituent elements themselves undergo favorable change with greater progress towards regional integration.

This chapter will assess the stock of social capital in Egypt and examine its contribution to development, particularly in its political aspects. It will suggest how Egypt's stock of social capital might be influenced by the process of globalization, and ways to protect it against future shocks. Egypt's economic cooperation with the Arab countries is also addressed from the viewpoint of social capital formation within a human development perspective.

Measuring Social Capital

Some publications, particularly from UN agencies, define the concept of social capital to include both government institutions and the formal and informal groupings of citizens. Putnam), however, defines social capital broadly to be "the features of social organization, such as networks, norms and trust, that facilitate coordination and cooperation for mutual benefit. Social capital enhances the benefits of investment in physical and human capital". For the purposes of this EHDR, we adhere to a narrower definition of social capital. It is also more relevant, in the context of this chapter, to focus only on those aspects of the social structure that impact on development.

Most authors would agree that the roots of social capital are the family, the community and the school. Others, such as the World Bank, would add to these sources the firm, civil society, NGOs, the public sector, ethnic groups and gender. In either case, the presence of social capital in a society is manifest when teamwork becomes customary, and the negative aspects of individualistic behavior do not present a significant obstacle to collective action. In other words, collective action becomes the norm when members of society trust each other, not necessarily out of a belief in the common good, but simply out of the realization that individual interests will be served through common action. In such situations, it can be said that an 'invisible social hand' guides the behavior of individuals and private groups.

In Egypt, there are indications of a strong stock of social capital. Rural and urban poor as well as the middle classes create informal mutual aid societies, known as Jam'eyyat.

This is one sign of the presence of social capital among these groups, and the reciprocal help provided to each other by villagers and the urban poor is yet another sign of action towards the common good. Formally, the activities of effective trade unions, syndicates, associations and political parties are also evidence of the presence of social capital.

At present, it is difficult to assess the volume of social capital based on traditional ties in Egypt. However, the mixed nature of several groupings, combining modern organization and primordial loyalty, attests to the surviving power of tradition in Muslim and Christian associations and in the societies of people from the same quarter, town, city or governorate. Some of these informal associations in poor urban settings, particularly among women, have been described in the literature, but there has been no attempt to quantify their number, many of which appear to belong to the predominant Jam'eyyah type. Another sign of robust social capital, although difficult to measure, is the apparently large sum of money donated to charitable work in Egypt, especially that related to the payment of alms (including Zakat), particularly during religious festivals.

One additional example stands midway between formal and informal manifestations of social capital, namely the self-help efforts undertaken by citizens, very often in cooperation with the government, in order to finance the provision of certain services. Accurate estimates of the value of these efforts do not exist, but previous official figures suggested hundreds of millions of Egyptian pounds.

Table (7.1) exhibits the variety of formal contemporary associations in Egypt and the number of organizations belonging to each category. The table clearly indicates that Egyptian citizens come together through a variety of formal bodies catering to their interests in almost all areas of social interaction: political parties, business groups, professional associations or trade unions, and formal Jam'eyyat. This type of collective activity through formal association is not new to Egypt, and the oldest such societies go back to the early nineteenth century.

The numbers of organizations in each category (Table 7.1) are not always a true indication of the actual condition of association. The number of functioning political parties, for example, may not exceed five, and the number of active civic societies is certainly less than the figure of nearly 15,000 Jam'eyyah registered with the Ministry of Social Affairs. Moreover the geographic distribution of these associations is quite biased with a large proportion tending to be located in Cairo and other major cities.

A second measure of social capital is membership of organizations. It is difficult to obtain the membership figures for most of them, as few publish any figures. Moreover, figures that may have been credible a few years ago are no longer so, either because citizens have lost their enthusiasm for some organizations, or because membership records have not been updated. Even when figures are available, the number of members does not reflect the level of their involvement in the activities of the organization. This is particularly the

The activities of effective trade unions, syndicates, associations and political parties are also evidence of the presence of social capital.

Table (7-1)
Formal Infrastructure of Social Capital in Egypt

Type of Organization	Number of Organizations	Number of
Political Parties	15	3.0
Busines groups	18000	3.0
Cooperatives	26	12.7
Trade Unions	23	3.3
Professional Associations	22	5.0
Citizens' Societies "Jam" eyyat	14600	3.0

case with cooperatives, trade unions and chambers of commerce. Thus, the figures given in the table should be treated with caution.

A third measure of social capital in Egypt is the cohesiveness of organizations. Indeed, there are signs of a lack of cohesiveness in each category of organization (see Box 7.1). Disputes which fragment these organizations, have recently been particularly marked in a few. Lack of cohesion is a feature now conspicuous in many organizations at all levels. The reasons behind this require research, but the phenomenon may have always existed and become apparent in organizations that are now more visible due to their large membership, their role in the social and political life of the country, and their presence in Cairo.

Egypt appears to have a considerable potential stock of social capital.

A fourth measure of social capital could be the level of cooperation among these organizations. Several authors consider networking a better indicator of the presence of social capital. There are indeed many cases of cooperation within each category of organization. However, such cooperation is not common, and usually of short duration.

The fifth, and last, way of measuring social capital in Egypt is to examine the social values that either foster or hinder collective action by individuals. The highly respectable World Values Survey, undertaken by the University of Michigan, did not include any data on Egypt or, for that matter, on Arab or Muslim societies. This may be due to a lack of such data, and might require research efforts at the local level.

In conclusion, Egypt appears to have a considerable potential stock of social capital. However, it may not be put to the good use suggested by the inflated figures on cooperatives, civic societies and political parties. Further, membership in associations of all types is presently low or inactive due to a perceived lack of internal cohesiveness, or to conflicts with the government that have led to the suspension of activities. This is the case for most professional associations that had their elections suspended for nearly half a decade during the 1990s. It is a

Box (7.1)

Cohesiveness of Social Capital Organizations In Egypt

With regard political parties, a number of members of Egypt's National Democratic Party (NDP) contested the elections of the People's Assembly (PA) in October-November 2000 as independents. In many cases they competed against the official candidates of their party, despite warnings by the party leadership that not abiding by party discipline would be held against them. These warnings were later disregarded by the same leadership, who, following their victory, hastened to reintegrate the independents into the party parliamentary group. The party was therefore able to retain a parliamentary majority with the support of these undisciplined "floating" members.

Regarding Egypt's professional associations, major internal disputes have marked the recent history of some of the most important of these. The cause of the disputes varied from one association to the other, being the validity of electoral procedures in some cases, such as the Syndicate of Engineers, or management of funds, as in the case of the Bar Association (BA). The BA in particular was the stage for several internal disputes throughout the 1980s and the 1990s, before the government took advantage of these quarrels to order the sequestration of the association in 1996.

Finally, within civic societies, the most important internal disputes were those that took place within the Egyptian Human Rights Organization in the 1990s, particularly in 1991. On the occasion of the election of the Executive Committee of the organization, one faction used questionable tactics in order to obtain a majority, thereby getting rid of another faction that had been its partner in establishing the organization in 1987. Similar disputes related to electoral procedures were also reported in some of the most exclusive sports and recreational clubs in Cairo. Business organizations did not escape such altercations either, with the Cairo Chamber of Commerce paralyzed in 1998-9 by an internal dispute that was resolved only through the intervention of the Minister of Supply.

positive sign that elections have now been allowed in the Bar Association, and are likely to be allowed in other associations. Delays in the adoption of a law of associations, acceptable to the leaders and members of these associations, is causing uncertainty as to the future of many of them, particularly those that deal with human rights issues.

Social Capital and Development

Social capital, as defined above, is conducive to development. In economic terms, social capital reduces the 'cost of transaction' because of the reduced need for bureaucratic regulation or for supervisory bodies to ensure honesty and good faith in all types of transaction. Non-economic interactions are also less costly in the presence of a good stock of social capital. Social capital fosters strong norms of generalized reciprocity, which allows more efficiency than that allowed in a "mistrustful" society, for the same reasons that money is more efficient than barter.

A rich base of social capital facilitates the rise of networks of civic engagement. These, in turn, contribute to inter-community linkages, provide coordination and communication channels between various social actors and promote positive values such as cooperation and social altruism. Moreover, successful networks of civic engagement demonstrate the effectiveness of collaborative effort, serve as a model for civil society participation, and help build a strong sense of civic responsibility and national identity.

Social capital is also useful for the formation of other types of capital. The efficient accumulation of a stock of physical capital requires the cooperation of large numbers of people; otherwise, the volume of physical capital stock may not come into being or would need to be obtained through coercion. Coercion is a costly means of building physical capital, as it requires the presence of an enforcing agent and could subsequently provide an outcome that may not be of good quality. Social capital is also necessary for the accumulation of financial capital. The mobilization of savings, small or large, is impossible without those involved trusting each other sufficiently, or trusting the institution which enables them to save together.

However, not all types of social capital are conducive to development. Social scientists distinguish three types of network:

Social capital, is conducive to development.

1. Those that bridge horizontal ties that link groups on an equal footing, such as trade union federations, or coalitions of political parties. Horizontal networks can facilitate interaction, unless they are divided along conflictive ethnic lines. Strong intra-association social capital can become a hindrance to overall societal integration.

2. Those that have ties of a vertical nature are often founded on paternalistic relationships, with one group at the center dominating other groups, either because it has more resources, older traditions or because it provides other organizations with different types of assistance. Vertical networks can reduce the autonomy of their individual members, with the dependent groups acting on the orders of the dominant group. Clandestine organizations and organized crime gangs are examples of this type of negative social capital.

3. Those that have a mixture of horizontal and vertical ties among groups, which gives rise to a system-changing network. This is typical of 'social movements'.

It is important to remember that the trickle-down effect of social capital is a function of solidarity. The goal served by ties of solidarity should be compatible with collective societal interests, as defined by the society itself, or by its legitimate representatives.

A rich base of social capital facilitates the rise of networks of civic engagement.

In Egypt, the traditional stock of social capital may be shrinking, but the accumulation of social capital through the modern forms it now takes leaves much to be desired, as indicated earlier. New growth theories emphasize the contribution of social capital to development, but if the economic, social and political development process in Egypt is moving more slowly than desired, existing stock of effective social capital in the country could be one of the reasons for this. The negative impact of

this predicament is seen in high transaction costs with the government. The dissatisfactory ranking of Egypt in the International Index of Transparency well illustrates the considerable transaction cost perceived by businessmen in their dealings with the Egyptian government.

Government action provides the framework for the formation and accumulation of social capital.

Another negative spin-off from lack of effective social capital is seen in the modest accumulation of other types of capital in Egypt, particularly physical capital. The execution time for national projects extends for much longer periods than forecast. One reason for this is the lack of speedy and efficient dispute settlement mechanisms. The business community is often reluctant to respond to government appeals to invest in its projects for similar reasons. Government action provides the framework for the formation and accumulation of social capital. In this respect, public policies during the last three decades have had a mixed effect. Disregard for court rulings and loopholes in the legal system undermine the rule of law, and citizens are consequently not sufficiently secure in their dealing with others, making the accumulation of further social capital difficult.

In addition, attempts to organize or to accumulate social capital through its modern associational forms encounter numerous restrictions from the authorities. This is the case for political parties, professional associations, trade unions, civic societies, and even business groups. Government actions and legislation have eroded the potentially positive impact of globalization on social capital in Egypt. However, some public policies, mainly in the areas of social development and social care, now provide strong potential for the further expansion of social capital in the country.

Globalization and Social Capital

Globalization could empower marginalized or even persecuted groups in the countries of the South.

The impact of globalization on social capital depends on many variables. One variable is the tie which provides the foundation of social capital, and its quality. It could be argued that the rapid movement of people, information, ideas, news and images weakens the ties of solidarity among members of groups that previously lived in harmony with community values. The expansion of the market economy to embrace many of the services that were rendered in the past by the traditional community, such as employment, health care and social protection, could weaken the need for individuals to maintain the ties of social duty and collective responsibility. These ties have in the past met not only emotional, but also physical and survival needs. Another significant variable is exposure to the international mass media, particularly through satellite television. This may not necessarily undermine traditional values, particularly among the older generation, but is likely to influence the young, and if values that previously cemented groupings across different social levels are eroded, this would generate a serious and dangerous dichotomy in Egyptian society.

Minimizing these real threats would necessitate a sustained and widespread debate, possibly through the mass media, to promote the change needed to foster balanced human development. Here, it would be important to strike a dynamic balance between the material, moral and spiritual aspects of the national culture and of life within Egyptian society, and allow for healthy interaction between different national variations and values.

On the other hand, globalization might give rise to new forms of social capital. The demonstration effect, exercised by more advanced societies with a multiplicity of groups that cater for a myriad of collective interests, could lead to the establishment of similar groups in developing countries. Human rights, environmental and women's groups have appeared in the countries of the South in the approximate image of their counterparts in countries of the North. In many cases, such groups had been active in countries of the South long before the term 'globalization' was coined. However, it is clear that in the 1990s their number has increased, and their activities expanded, not only in Egypt, but in other countries of the Arab region.

Globalization could empower marginalized or even persecuted groups in the countries of the South. The solidarity extended to human rights groups in many countries of the South by their counterparts in the North,

and the publicity given to their activities provides important support for their causes. While the financial support some of these groups receive from their counterparts in the North enables them to pursue and expand their activities, it has occasionally created antagonisms and difficulties with the authorities.

Thus, the impact of globalization on social capital in the countries of the South is not without its problems. Many groups are limited to small numbers of highly educated people, and rely on foreign funding. This may actually reduce the likelihood of striking roots within their own communities and thus accumulating a larger stock of social capital. It is feared that foreign funding could be accompanied by a new type of dependency relationship between organizations of the North and the organizations receiving their assistance in the South. The adversaries of such organizations could stigmatize them as 'agents of foreign powers', thus further distancing these organizations from their own citizens. If this happens, foreign funding may paradoxically become a cause of the slow accumulation of social capital.

To summarize, in assessing the state of social capital in Egypt, three important considerations should be taken into account. These are the mixed character of Egyptian culture, the rapid transition to a market economy since the mid 1970s, and the increasing openness of Egyptian society under the process of globalization to external influences. Ties of solidarity based on primordial loyalties such as common birthplace, religion, and extended family have not disappeared, but they cannot always survive the move away from villages or the change in occupation, or the process of social mobility. Such ties have come increasingly under attack with the accelerated expansion of the market economy since the mid-1970s, as a result of the adoption of the Open Door Policy in 1974 and the mass migration of Egyptians to seek more remunerative jobs, especially in the oil-producing Arab countries.

The process of modernization has brought with it opportunities for new forms of solidarity. The programmed cohesion of the traditional community is being replaced by the organic solidarity of a modernizing society. Political parties, civic societies, trade unions and syndicates, provide new frameworks for people to come together on the basis of political affiliation, occupation or simply social and intellectual interests. Traditional ties do not disappear in this modern setting, but they become just one basis for interaction in these organizations alongside ideology, political stance or common interest.

Globalization and Egyptian Social Capital

On the positive side, globalization has created favorable conditions for the accumulation of new social capital in Egypt. It has offered Egyptians novel ideas that have translated into collective efforts ranging from the defense of human rights to the protection of the environment, and a new impetus to encourage the private sector. New ideas have led to the establishment of organizations which have attracted a considerable number of the Egyptian intellectual and business elite, and have quickly become among the most active organizations of an emerging civil society.

In the area of human rights, no less than fifteen organizations have come into being in Egypt since the mid-1980s and have succeeding in making human rights a public issue. Several societies concerned with the protection of the environment were also established during the same period. Business groups, formed since the late 1970s, have become influential actors in the decision-making process, and are supported by research centers, think-tanks and institutes that disseminate ideas favorable to the expansion of the private sector and a more hospitable climate for foreign direct investment (FDI).

The process of globalization has empowered organizations of an emerging civil society, thus strengthening the social capital they embody. The ties of solidarity which link some of these organizations with global movements that share the same ideas have enabled organizations, notably human rights advocates to survive in a hostile political environment, withstanding pressure from the government, and even the harassment and persecution of their members.

The process of globalization has empowered organizations of an emerging civil society, thus strengthening the social capital they embody.

Globalization has also empowered collective action by Egyptian citizens through various forms of assistance rendered to Egyptian organizations operating in these new areas of public involvement. Few of the organizations operating in the fields of human rights, gender equality, protection of the environment, or even support for the private sector, could mobilize sufficient funds locally to undertake their activities. They have all found easy and generous sources of funding from abroad.

Globalization has had mixed effects on the accumulation of social capital.

On the negative side, foreign funding of organizations that occasionally express views and publish statements critical of certain actions of the government has made it easy for the latter to accuse these organizations of being the tools of foreign powers and to attempt to bring their activities under government control, or simply to ban them altogether. The Law of Associations No.153 of 1999 promised to offer government recognition to almost all associations in the country, provided they obtain government authorization for any foreign funding extended to them. Almost all human rights organizations were critical of this law. Some of them tried to find ways to avoid being subject to its provisions. The Supreme Constitutional Court found this law to be unconstitutional on other grounds in the summer of 2000.

Large sections of public opinion, often informed by a sensationalist media, share the government's suspicion of foreign funding for certain organizations, groups and private research centers. This distrust alienates many people from these groups and renders them unpopular. Those suspicious of foreign funding tend to believe that the external support provided to Egyptian organizations amounts to the establishment of vertical-paternalistic ties amongst them, with foreign or international non-governmental organizations as patrons and Egyptian organizations their clients and mouthpiece.

In conclusion, it could be said that globalization has had mixed effects on the accumulation of social capital. It facilitates the formation of social capital around several issues, but also creates obstacles to the further accumulation of social capital in the name of human rights, gender equality or independent social science research.

Regional Integration and Social Capital

Regional integration is related to the accumulation of social capital in those countries involved. On the one hand, regional integration is itself the formation of social capital across the borders of member countries. This is more the case where countries have common interests, language, culture, and values, as is the case with the countries of the Arab region. On the other hand, regional integration provides better chances for the efficient allocation of resources and higher growth rates, which are positively reflected in higher standards of living. Such favorable economic conditions help increase social cohesion and the growth of social capital.

Regionalism ranges from simple forms of economic cooperation to total economic integration. Progressing from one form to another implies increasing coordination of the policies and measures regulating socioeconomic and political life in member countries, which, in turn, creates greater opportunities for the consolidation of social capital in these countries, both collectively and individually. Accordingly, effective economic cooperation, when supported by the socio-political will to move towards total economic integration, can help in the accumulation of social capital and to enlarge its scope of action.

Given these possibilities for developing social capital through regional integration, this section examines how Egypt has been affected by economic cooperation with the Arab countries.

Economic Cooperation: Egypt and the Arab Countries

Economic cooperation between the Arab countries has contributed greatly to the progress that has been made in human development in Egypt and other Arab countries.

Economic cooperation between the Arab countries has contributed greatly to the progress that has been made in human development in Egypt and other Arab countries. It is noteworthy that long before the Arab countries could implement human development programs on their own, Egypt played a leading role in supporting the development of their human resources through the provision of teachers, doctors, engineers, and other experts.

However, this section concentrates on the post-October 1973 war period after the first oil-price shock, which resulted in abundant Arab financial resources. This enabled oil producing Arab countries to invest part of these resources in programs of construction and infrastructure, and in programs aiming at developing health, education, culture and other aspects of life. Non-oil producing Arab countries contributed to this process through labor and trade flows, and also benefited from the increased investment flows from oil producing Arab countries, which helped raise standards of living. Thus, one can argue that experience has shown that Arab economic cooperation in its different forms of trade, investment, aid, and labor flows, can become a means to achieve more balanced relations with the strong world economic blocks and to alleviate the negative impact of globalization.

Forms of Arab Economic Cooperation

Means of Economic Aid

Arab economic aid relates to the aid provided by oil producing Arab countries to the less wealthy countries. Islamic and Arab history demonstrates other forms of social solidarity between individuals and countries, notably in the shape of religion endowments (Awkaf) and other aid, mainly in the form of alms (including Zakat) which involved the redistribution of income and wealth to disadvantaged countries, groups, or individuals.

Aspects of Arab Aid to Egypt

Foreign aid began to play an important role in the Egyptian economy in the early 1970s. Two main aspects characterize Arab aid, specifically, to Egypt:

1. The relationship between the size and magnitude of Arab aid and the size of the financial surplus in oil exporting countries. This is demonstrated by the fact that development aid reached its peak when oil prices and exports increased enormously in the late 1970s and early 1980s.

2. The simple conditions attached to Arab aid, with beneficiaries, for example, not tied to commitments to buy inputs from donor countries.

Arab Funds and Egypt

One of the major aims in creating Arab Funds was to support Arab economic integration. Loans provided by these funds contributed to improving the comparative advantage of Arab countries. This resulted in increased trade and significantly raised living standards in the region. One good example is the Arab Fund for Economic and Social Development, based in Kuwait, and which provided the bulk of the funding needed for the electricity network connecting Egypt, Jordan and Syria. Table (7.2) summarizes aid from Arab Funds to

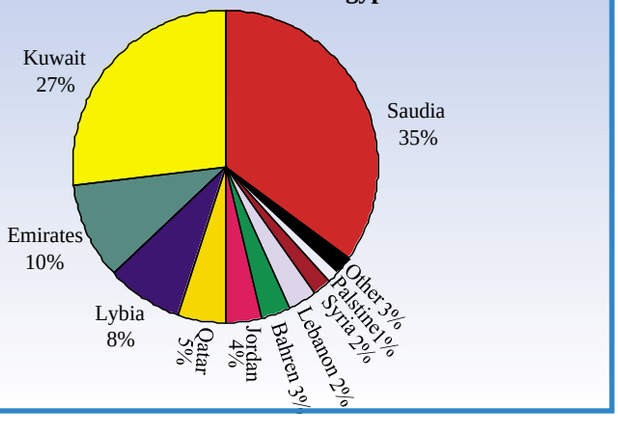
One of the major aims in creating Arab Funds was to support Arab economic integration.

Table (7-2)
Sectoral Distribution of Arab Aid in Egypt

Sector	Million US$	Share (%)
Infrastructure	**1619.8**	**52.70**
Suez Canal	211.9	13.08
Railways	105	6.48
roads	17.3	1.07
Maritime Transport	11.4	0.70
Telecommunication	17.1	1.06
Electricity and Power	1017.1	62.79
Water	32	1.98
	208	12.84
Productive Sectors	**1380**	**44.96**
Agriculture and Arable land	388.9	28.18
Industry and Mining	717.4	51.99
Small firms	273.7	19.83
Tourism	11.5	0.83
Human Development	**69.5**	**2.26**
Health	10.6	15.25
Eduction	49.5	71.22
Dwellings	0.7	1.01
Research	1.3	1.87
Others	7.3	10.65
Total	**3069.3**	**100**

the different sectors of the Egyptian economy. It highlights the contribution of Arab aid to enhancing economic development, providing job opportunities, and meeting Egyptians' basic needs for medical services and safe water. In addition, aid also served regional integration among Arab countries.

Figure 7-1
Arab Direct Investment in Egypt 2000



Arab Direct Investment to Egypt

Arab investment flows were primarily associated with the improvement in the investment environment in Egypt. In the early 1970s investments increased in response to the Open-Door Policy, then fell by the late 1980s, to grow once more after the implementation of the economic reform policies. The stability of the domestic environment and opportunities for profitability proved to be more effective determinants of investment than the special incentives provided to foreign investors. The share of Arab investment in Egypt has been steady at 15 per cent of total investments during the past twenty years. The following section shows the development of flows of Arab investment into Egypt, the relative importance of investors by country, the sectoral distribution of these investments, and the factors that might help Egypt attract further investment.

Arab investment flows were primarily associated with the improvement in the investment environment in Egypt.

During the 1970s, Arab investment in Egypt increased after the rise in oil prices, reaching US$300 million in 1980. With the peace treaty between Egypt and Israel, this figure fell, but rose again after 1988, reaching US$922.6 million in 1991 as a result of the Gulf War. Arab investment decreased in 1992 after the liberation of Kuwait and continued to fall due to the tight policies associated with the economic reform program in Egypt, reaching US$308.1 million. However, as the business environment in the Egyptian economy improved, Arab investment started to grow again, reaching US$3.5 billion in 2000, an amount equivalent to 11 per cent of total cumulative investment in Egypt up to this date.

Arab Countries Investing in Egypt

With respect to the share of total Arab investment, the four top Arab countries, as illustrated in Figure (7.1) are Saudi Arabia (33.5 per cent), Kuwait (26 per cent), the United Arab Emirates (9 per cent) and Libya (8 per cent). Qatar, Jordan, Bahrain, Lebanon, Syria, and Palestine together contribute nearly a fifth of total Arab investment. The individual shares of other Arab countries are less than 1 per cent.

Sectoral Distribution of Arab Investments in Egypt

Most Arab investment is concentrated in the services and industry sectors, with about 52 per cent and 25 per cent of total Arab investment respectively. Free zone projects attract 19 per cent of total Arab investment, while the agricultural sector attracts only 4 per cent. In terms of their share of total sectoral investment, the main sectors with shares higher than 10 per cent are the financial, agricultural, tourism, and free zone sectors (see Table (7.3).

The preparation of the economic environment in Egypt to absorb private investment through huge projects such as the South Valley Development Project and the Sinai Development Project, in addition to strengthening political stability in the country, could have the positive impact of attracting more Arab investment.

Trade with Arab Countries

Given the challenges imposed by globalization and by world economic blocks, one might argue that Arab inter-trade is a means towards Arab integration, which in turn, would mitigate the negative impact of these challenges. Enhancing trade in the Arab region would result in a new outlet for

Table (7-3)
Contributon of Arabs in Subscribed Capital to Established Companies till Decemer 2000

Sector	Share value	Ratio to Total Arab Capital %	Ratio to Sector Total investment %
Industrial Co.	3448	25	8
Agricultural Co.	522	4	12
Construction Co.	342	2	5
Tourism Co.	3398	25	12
Funding Co.	2969	22	17
Service Co.	365	3	5
Free Zone Co.	2666	19	11

Egyptian exports, especially as Egypt enjoys a strategic geographic location in the Arab region. Inter-Arab trade is already supported by several factors: the availability of non-exploited natural resources; the economic reforms and liberalization policies that have been carried out in most Arab countries; and the implementation of trade agreements, such as the 'Arab Free Trade Area'. Egypt has already signed four agreements to liberalize trade with other Arab countries.

Trade between Egypt and the Arab countries still faces many obstacles, however. For instance, Egypt has not enjoyed any preferential privileges in Arab markets until recently. In addition, difficulties with cross-border measures, the absence of regular navigation lines, high shipping costs, and the similarity of production structures in Arab countries, weaken the comparative advantage of the Egyptian producer and narrows inter-Arab trade opportunities. Further, most Arab countries lack an adequate economic database and still need to reform and unify commercial, monetary and financial codes. Additionally, unstable economic and political circumstances in the Middle East region, a decline in the price of oil, the variability of exchange rates, fierce competition from South East Asian countries and other fast growing economies, and the challenges implied by world economic blocks, complicate the situation even further.

Enhancing trade in the Arab region would result in a new outlet for Egyptian exports.

Nonetheless, part of the problem lies with the Egyptian exporters themselves who still have insufficient experience of Arab markets despite their proximity, are usually small and irregular exporters with a limited exporting capability, and are not always committed to international standards.

Egyptian-Arab Trade during the 1990s

Arab trade with Egypt, as shown in Table (7.4), represents about 7 per cent of total Egyptian foreign trade, and is characterized by a fast growth. During the 1990s, Egypt's trade with Arab countries increased from US$484 million in 1990 to US$1474 million in 1999. It is notable that the rate of

Table (7-4)
Egypt's Trade with selected Arab countries During the Nineties

Years	1990			1994			1999		
Country	Exports	Imports	Total	Exports	Imports	Total	Exports	Imports	Total
Saudia	77	76	153	155	194	350	121	698	819
Libya	44	12	44	44	48	92	42	57	99
Syria	7	12	58	58	17	74	42	25	67
Arab Emirates	13	7	41	41	13	54	37	61	98
Sudan	21	34	29	29	2	31	22	37	59

The group of countries forming the Arab Free Trade Area represents an important consumption market.

growth of Egyptian exports to Arab countries was much lower (5.1 per cent) than that of Egyptian imports (19.3 per cent). Saudi Arabia has kept the position of first trade partner for Egypt during the 1990s. However, since 1994, the Egyptian balance of payments has been deteriorating in favor of Saudi Arabia. Severe competition was felt mostly in the case of construction material and petrochemical products. In second place comes Libya where the international economic boycott pushed it to trade more with it neighbors, especially Egypt and Tunisia. Starting in 1994, Egypt's balance of payments with Libya turned also in favor of the latter due to the increase in Egypt's import of iron and petrochemicals, in which Libya enjoys a comparative advantage. However, the balance of payments with the third major Arab trade partner, namely Syria, has remained in favor of Egypt throughout the whole period. In fourth position, come the United Arab Emirates, which have benefited, with Egypt, from the geographic location of Dubai and its role as a re-exporting port. Sudan's position as a trade partner with Egypt has deteriorated due to the boycott imposed on it by the international powers.

The Arab Free Trade Area

The agreement signed in 1981 for facilitating and developing trade between the Arab countries, is considered the point of departure for building up an Arab free trade area that would eventually lead to the establishment of an Arab common market. The Economic and Social Council of the Arab League decided in February 1997 to implement this agreement through an action plan, which included the following steps:

- Gradual liberalization of trade between the member countries by annually reducing 10 per cent of tariffs in effect on 1 January 1997.
- Elimination of non-tariff barriers.
- Applying Arabic rules of origin.
- Exchanging data and information.
- Establishing a committee for settling disputes.
- According preferential treatment to the less developed Arab countries.
- Exchanging views concerning trade-related activities, such as scientific and applied research, legislation, and the protection of intellectual property rights.

The group of countries forming the Arab Free Trade Area represents an important consumption market with a population of 174 million, an average per capita income of US$3000 and a total gross domestic product of US$515 billion (according to 1997 data). Among the twenty-two Arab countries, fourteen have already announced their commitment to the implementation of this agreement, while the remaining eight will join the Area after receiving special treatment as least developed Arab countries. It is noteworthy that the fourteen committed countries contribute 90 per cent and 96 per cent respectively of total Arab foreign trade and intra-Arab trade.

Bilateral Free Trade Areas

In addition to the multilateral Arab Free Trade Area, some Arab countries have signed free trade agreements on a bilateral basis. Egypt has been keen to sign bilateral agreements, especially with those Arab countries that have implemented economic reform and structural adjustment. 1998 witnessed the signature of four free trade agreements between Egypt and Tunisia, Morocco, Lebanon, and Jordan. These agreements aim at bilateral liberalization of trade via eliminating tariff and non-tariff barriers.

Egypt considers expanding intra-Arab trade as a main component in its export development program. Although only about 15 per cent of Egyptian exports go to Arab countries, there is considerable potential for increasing this figure. Egypt has only recently started to benefit from the natural advantage of its geographical location among the Arab countries, and the cultural and social ties between the Arab peoples.

Labor Mobility

The number of Egyptians working abroad has never been agreed upon, and significant differences exist among the available estimates. For example, the 1996 census estimated the number at 3.5 million, while other estimates suggest the figure of 1.7 million, at most. The boom accompanying the considerable increase in oil revenues,

particularly from 1973-1980, contributed to an increase in demand from oil-exporting Arab countries for all kinds of services, including administrative, financial and personal. In addition, the administrative system was expanded to provide health, education, social and all the other service provisions of a welfare state without having to burden citizens with high taxes. This necessarily implied increased labor movement to these countries.

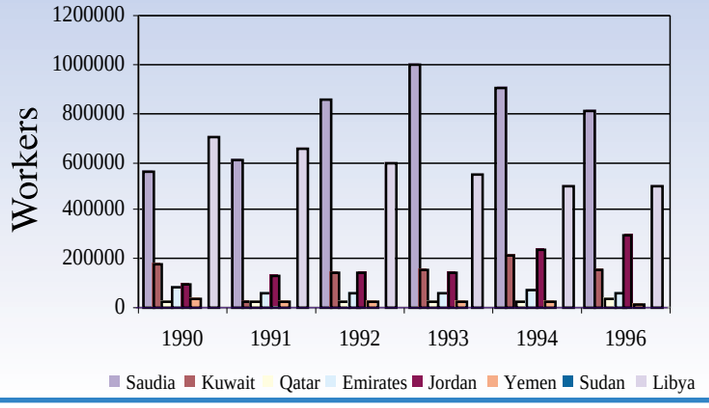
As shown in Figure (7.2), most Egyptian workers were attracted to Libya, the Gulf countries and Iraq. Their number in the Gulf countries decreased significantly in the aftermath of the Gulf War. However, there were other factors feeding this trend: notably, the fall in oil prices; and the policy of substituting foreign labor by national labor.

Egyptian labor movement to Arab countries has been characterized by the concentration of labor (53.1 per cent) in productive professions, whether in the industry, agriculture, construction or transportation sectors. Technical, scientific, and managerial professions come next with a share of 21.3 per cent, while bureaucratic jobs represent only 3.6 per cent.

However, a recent study suggests that the Gulf War had harmful effects on unskilled and uneducated labor. For example, agricultural workers represented 18.5 per cent of total workers coming back from Iraq, while production and transportation workers amounted to 55.6 per cent of the same total.

It appears then that Arab-Egyptian relations have contributed to achieving higher standards of living, and more opportunities and choices for all, as well as the development of mutual understanding. It is certain that the movement of Egyptian labor to Arab countries was significant factor, contributing to prosperity in the Arab world. Egyptians working in Arab countries have accelerated the implementation of economic and social development programs because of their qualifications, experience, low cost, and ability to train other workers. Labor movement has raised the standard of living of no less than an estimated 15 per cent of the Egyptian population, supported the balance of payments, and has had a major role in preserving the value of the Egyptian pound from further depreciation. In addition, the investments of Egyptians working abroad have helped narrow the saving-investment gap and thereby contributed to economic growth in Egypt. However, with respect to trade, Egyptian exports have so far failed to achieve an adequate share of the Arab market. This is evident in the reversal of the balance of payments in favor of several Arab countries such as Saudi Arabia and Jordan.

Figure 7-2
Estimates of Egyptians working in some Arab Countries



Finally, Arab economic cooperation is not a substitute for globalization. On the contrary, it is believed that cooperation will increase the opportunities for benefiting, both socially and economically, from globalization.

Arab economic cooperation is not a substitute for globalization. On the contrary, it is believed that cooperation will increase the opportunities for benefiting, both socially and economically, from globalization.

Technical Notes and Sources of Data

Human development index

The Human development index (HDI) is based on thre key components: longevity , educational attainment and standard of living. longevity is measured by life expectancy at birth . Educational attainment is measured by a weighted average of adult literacy (two-thirds) and combined first-, second-, and third-level gross enrollment ration (one-third). For standard of living, the adjusted measure used is the purchasing power parity of the income equivalent in US$ (see, UNDP Human Development Report 1995, technical note 3 pp.134-135). It is to be noted that the mean years of schooling was replaced by the combined enrollment ratio in 1995 report.

In earlier years, the minimum value of each of the variables was determined at the level of the poorest-performing country, and the maximum value at that of the best-performing country. The HDI for a given country was, therefore, its position between the worst and best countries. However, the minimum and maximum values changed every year in accordance with the performance of the countries at the extreme ands of the scale. The basic issue with shifting the goal posts is that it precludes meaningful comparisons overtime.

The UNDP Report of 1994 has introduced a major refinement in the methodology of constructing HDI when goal posts were fixed for each indicator to allow analysis over time. The minimum and maximum values of the four basic varialbes in the subsequent Report remained the same with one exception where the minimum value of real GDP per capita was revised from PPP US$ 200 to PPP US$100 since 1995 Report (Table T.1).

The index for any component of HDI can be computed as : (the actual value – the minimum value) (the maximum value- the minimum value). For income , the threshold value is taken to be the global average real GDP per capita. Multiples of income beyond the threshold are discounted using a progressively higher rate. The present report applies a refinement introduced since 1999 UNDP Report, for computing the index of income. This refinement implies the application of the aforementioned formula with one expception , namely, using the logarithms of the actual, minimum and maximum values of real GDP per capita (PPPS).

In the present report, GDP per capita for Egypt was estimated from National Income Accounts of 1999/2000. The estimated GDP per capita in local currency (LE) was translated to its value in US$ using an appropriate exchange rate. Then , the real GDP per capita (PPP US$) may be calculated by applying a suitable factor to the estimated GDP per capita in US$. However, the implied value of this factor in the UNDP Reports rose markedly from about 2.1 to 6.1 for a relatively short period (1987-1994).

The report team preferred the value of the factor implied in the 1999 report. The resulting HDI for Egypt in 2000 amounts to 0.665.

One of the main objectives of the report is to construct human development index at the governorate level. The governorates' life expectancies at birth are estimated from detailed data on deaths and population by age. The educational attainment indices are calculated on the basis of the maximum and minimum values of literacy and combined first-, second-, and third-, level gross enrollment ratio given in Table (T.1).

Table (1)
Minimum and Maximum Values

Minimum Values	Naxunyn	Values
Life expectancy at birth (years)	25	85
Adult literacy	0	100
Combined enrolment ratio	0	100
GDP per capita (PPP$)	100	40000

For income per capita in different governorates, this report has benefited from the early information available from the latest Household Income and Expenditure Survey (HIES) carried out by the Central Agency for Public Mobilization and Statistics (CAPMAS). From the availabe information, it was possible to determine the

pattern of regional differences . In the light of this pattern and the estimated real per capita (PPPs) from national income accounts, the values of real per capita (PPPs) were estimated for individual governorates .

The following example for Assyout governorate may illustrate the above mentioned steps of calculating human development index . The estimates of the components of HDI for Assyout are as follows :

- Life expectancy at birth = 65.4
- Adult literacy rate % = 46.7
- Combined enrollment ratio % = 62.9
- Real GDP per capita (PPPs) = 2650.4

Using these estimates as well as the maximum and minimum values given above, indices of the three components and human development index were derived in the following manner:

- life espectancy index:
  = (65.4-25) (85-25)= 0.673
- education index:
  = 1/3 (.467x2+.629) = 0.521

* GDP index:
= (log 2650.4-log100)/(log40000-log 100) = 0.547

Assyout human development index
= 1/3(/673+.521+.547) = 0.580

Demographic aspects

The main sources of demographic data are population censuses, vital registration and special national surveys. CAPMAS is the official national organization responsible for carrying out and/or publishing the results of some of these sources (population censuses and vital registration) and a major partner or consultant in carrying out the remaining sources (e.g. national fertility surveys). The demographic indicators, derivable from these sources, reflect the demographic situation and its trends. Some of these indicators are used in other related fields (e.g. health). In addition, population figures (total or for specific categories) are necessary for computing many indicators in various fields.

The present report includes The following demographic indicators ;

- Population counts 000's
- Population annual growth rates %
- Rural population as % of total
- Urban population as % of total
- Annual growth rates of urban population %
- Population of largest city as % of total urban
- Demographic dependency ratio %
- Net lifetime internal migration as % of total population
- Population density per Km2
- Population doubling date at current rate.
- Crude birth rate (per 1000 population)
- Total fertility rate
- Ratio of 1998 fertility to 1960%
- Contraceptive prevalence %
- Average age at first marriage
- Crude death rate (per 1000 population)
- Infant mortality rate (per 1000 live births)
- Under five mortality rate (per 1000 live births)
- Children dying before age 5
- Maternal mortality rate (per 100000 live births)
- Life expectancy at birth.

The first ten indicators listed above were derived from census data and population projections. These indicators are given at the national and regional levels, except net lifetime internal migration which is provided for each governorate only and population doubling date given at the national level. The latter indicator is calculated by the exponential function using the annual growth rate of 2.2 % for 1996/2000 intercensal period.

Mortality measures, crude birth rates and average age at first marriage rely on vital registration. It is to be noted, however, that registered infant deaths suffer from under-registration. Therefore, the re-gistered and adjusted infant and under 5 mortality rates are given for 1996 Moreover, the reported average at first marriage tends to be higher than its actual value particularly in rural areas where families report higher age to escape legal constraints. Life expectancy at birth, at the national and regional levels, in 1976, 1998 and 2000 were computed from detailed data on deaths and population by age and gender after allowing for under-registration of infant deaths. The maternal mortality rates are

taken from the ministry of Health and Population, The treservation of the Child's life 1998.

Total fertility rate and contraceptive prevalence are provided by Egypt Demographic and Health Health Survey (EDHS) 1984, 1995.1997 & 1998, carried out National Population Council.

Labor force and unemployment

The main sources of labor force data in Egypt are population censuses and the annual labor force sample surveys. However, the two soruces are not strictly comparable. Population censuses provide various distributions of the labor force (by gender, age, industry, occupation, employment status, etc.) for urban/rural areas of each governorate. Information on unemployment is covered by the distribution of labor force by employment status and its cross-classifications. In general, however, the cross-classifications of labor force data exclude the small numbers of foreigners. On the other hand, labor force sample surveys are confined to the civilian labor force, and the data provided are not as detailed as in the case of population censuses. Secondly, labor force concept is not the same in the two sources. The labor force sample surveys, as population censuses, are carried out and publised by CAPMAS.

Labor force and unemployment data from population censuses were used by the present report. The indicators covered are as follows:

- Labor force 15+as % of total population
- % females in the labor force 15+.
- Labor force 15+ in agriculture, industry, or services.
- Wage earners, I.e. employees, (as % of labor force 15+)
- Professionals and technicians as % of labor force 15+.
- % females in legislative and managerial staff.
- % females in professional and technical staff.
- Employees in government and public sector as % of total labor force 15+ .
- Unemployment rate (%): Total, females, adults 15-29.
- Urban and rural unemployment rates 15+%.
- Unemployment rate by education 15+: (below secondary, secondary including above secondary but below university, and university).%
- Absolute numbers of the unemployed.
- Future labor force replacement ratio (%),i.e. population under 15 divided by one – third of population aged 15-64.

The indicators are calculated for the national and regional levels by gender and urban/ rural disagreggations.

Education and literacy

Education and literacy indicators require three type of data:

a) Standard educational data, e.g. students (enrolled or graduates), teachers, classes, etc. The primary sources of this type of data are the Ministry of Education and El-Azhar Education Administration. These data are up-dated and published annually. They are given in dteailed gender and governorate disaggregations for pre- university levels. For the tertiary level, the data are published at the national level by the Supreme Council of Universities.

b) Census-based data, including school-age population , and educational status of the population 15 years of age and over, are available also in census years for all levels of disaggregation.

c) Economic data required for deriving indicators of public expenditure on education. The government budget, published annually by the Ministry of Finance is the primary source for data about public expenditure on education. However, the data are not disaggergated by governorate.

d) Based on these types of data, the report includes the following indicators on education and literacy:

- Apparent primary intake rate (%)
- Primary enrollment ratio (gross)(%)

- Preparatory enrollment ratio(%)
- Basic enrollment ratio (%)
- Secondary enrollment ratio(%)
- Combined basic and secondary enrollment ratio (%)
- Tertiary enrollment ratio (%)
- Combined first-, second-,and third-level enrollment ratio(%)
- Primary repeaters as % of primary enrollment
- Preparatory repeaters as % of preparatory enrollment
- Secondary repeaters as % of secondary enrollment
- Transition to preparatory as % of enrollment in the final grade of primary education in the preceding year.
- Transition to secondary as % of preparatory completers
- Primary pupil/teacher rate(i.e., average number of pupils per teacher)
- Preparatory pupil/teacher rate
- Class density (average number of pupils per calss); primary and preparatory.
- Secondary technical enrollment as % of total secondary
- Tertiary science enrollment as % of total tertiary
- Public expenditure on education as % of total
- Public expenditure on education as % of GDP
- Public expenditure on pre-university education as % of all levels
- Public espenditure on higher education as % of all levels
- % of basic and secondary enrollment in government, private and El-Azhar schools
- % of unfit school buildings (Total, and improper maintenance)
- Adult literacy rate %
- % of population 15+ with secondary or higher education
- Tertiary graduate ratio (as % of corresponding age)
- Science gradutes (as % of total gradutes)
- Absolute numbers of illiterate adults 15+

These indicators are given by gender for the national and regional levels. Moreover, literacy indicators are also calculated for urban and rural areas. However, expenditure indicators and those of the tertiary education are given for the national level only.

The following notes pertain to the indicators listed above:

a) Since reliable data on enrollment by age are not available, specially for primary education, gross enrollment ratios were calculated for all levels.

b) The population figures in the age groups corresponding to different educational levels were estimated by applying Sprague Multipliers to the census population by age groups in 1960 and 1996 respectively.

c) Some of the enrollment and transition ratios exceed 100% as a result of the numbers of students above (or below) the age limits of the education level, the return of families from abroad and/or Intergovernorate migration.

d) Since enrollment in higher education by governorate is not available , the combined first-, second-, and third-level gross enrollment ratios for various governorates were derived after distributing total enrollment in higher education according to the relative shares of the governorates in pre-university enrollment.

e) The differences between sciences vs. humanities and theoretical vs. practical dichotomies are mainly due to the varying classification of technical institutes (2yeas after secondary education).

Nutrition and food security

The report includes the following nutrition and food security indicators:

- Daily calorie supply per capita
- Shares in daily calorie per capita (vegetable vs. animal products)
- Children ever breastfed %
- Underweight below age five %
- Food production per capita index (1979-81=100)
- Agricultural production as % of GDP
- Cereal imports (1000 metric tons)
- Food exports as % of food imports
- Food imports as % of merchandise exports
- Food self sufficiency ratio %

- Food import dependency ratio %

The first two indicators are based on Food Balance Sheet (FBS) published by Ministry of Agriculture and Land Reclamation. The next two indicators about children nutrition are taken from (EDHS 1997, 1998 & 2000) referred to earlier for the country and its major regions. The remaining indicators are given at the national level only. Food production per capita index is taken from the FAO "Quarterly Bulletin of Statistics". Agricultural production as % of GDP was derived from national income accounts provided by the Ministry of Planning. Food imports and exports as well as total merchandise exports are published annually by CAPMAS.

The latest four indicators depend on the value of local food production, food imports as well as food and total merchandise exports. The volumes of detailed groups of commodities of local food production were available from the Ministry of Agriculture, while the detailed tabulations of volumes of commodities of the remaining components are published annually by

CAPMAS

The value of local food production was computed by applying FOB prices (i.e. Free On Boar) to the volumes of tradable commodities and producer prices to non-tradable commodities. The value of food imports were derived by applying CIF prices (i.e. Cost Insurance Freight) whereas FOB prices were applied for computing the value of food exports. The overall food self-sufficiency ratio was derived by diving the value of local food production by the value of total food consumption (i.e. local food production – food exports + food imports). On the other hand, food import dependency ratio is computed by dividing the value of food imports by the value of total food consumption.

Health and public utilities

In addition to health related indicators covered by other sections, this report includes the following indicators on health and public utilities.

- Population with access to health services %
- Pregnant women with prenatal care %
- Births attended by health personnel %
- Children fully immunized %
- Doctors per 10000 people
- Nurses per 10000 people
- Nurse / doctor ratio %
- Beds per 10000 people (Total and Ministry of Helath only)
- Health units per 100000 people
- Public expenditure on health as % of total
- Public expenditure on health as % of GDP
- Population or Households with access to piped water %
- Population or Households with access to sanitation %.

Health services are constitutionally rendered free of charge to everyone. However, the first indicator is estimated to be 99% in rural areas compared to complete accessibility in urban areas.

The next three indicators are provided for the country and its major regions by Egypt Demographic and Health Survey (EDHS), 1997 and 1998. It may be noted that health personnel attending birth include doctors, nurses, trained midwives. The traditional birth attendant (dayas), however, play an important role, especially in rural areas.

The data on total health personnel are deficient as long as there is no efficient system to update their number taking into account some factors such as migration, retirement, on-leave periods, and duplication in the statistics of personnel in provate and government institutions, The relevant indicators in this report for the country and by governorate include only the health personnel in the Ministry of Health (MOH). Consequently, they may not accurately reflect regional disparities in this respect. Bed/population indicators are given for total beds and those of the MOH at the national and regional levels. The indicators of health-units/population include all health care units. The data required for these indicators by governorate were provided by the MOH.

Indicators of public expenditure on health depend on data from Government Budget published annally by the Ministry of

Finance and GDP figure from National Income Accounts provided by the Ministry of Planning.

Data on accessibility to piped water and sanitation are available from censuses. The indicators, given at the national and regional levels, on accessibility safe water in 1976 and 1996 are based on census data , wheteas those of 1999 are based on early information available from the latest (EGHS). However, due to differences in the classifications used, the trend of accessibility to safe water is confined to piped water.

On the other hand, reliable data on accessibility to sanitation is less satisfactory because of the varying concepts and classifications used in the censuses and surveys. The indicators given for the country and governorates in 1996 are taken from 1996 census, where accessibility to sanitation includes only the households connected to public network. On the other hand , the indicators for 1999 include the following categories: modern flush toilet, trditional w/tank flush and traditional w/bucket flush. These categories are avaiable for 33.4%, 3.6% and 57.5% of houshlods at the national level and 7.8%, 3.7% and 78.2% of households in rural areas.

G. Natural resources and energy consumption

The. present report includes the following indicators on natural resources and energy consumption:

- Land area (thousand Km2)
- Cultivated area: Thousand feddans
  - As % of land area
  - Persons per feddan
- Irrigated land as % of arable land area
- Crop area : Thousand feddans
- Crop/cultivated land ratio
- Total water resources (Billion m3)
- Water consumption as % of total water resources
- Internal renewable water as % of total water resources
- Per capita internal renewable water (m3/year)
- % of water withdrawals by:
  - Agriculture
  - Municipal
  - Industry
  - Navigation
- Total fish catch (thousand tons)
- % of fish catch from:
  - Fresh water (Nile & lake Nasser)
  - Marine (Mediterranean & Red Sea)
  - Other lakes
  - A qua culture

* Electricity consumption : Total (billions of kilowatt-hours)

- Electricity consumption per capita (kilowatt –hours)
- Total commercial energy consumption (million ton oil equivalent)
- Commercial energy consumption per capita (kg oil equivalent)
- % of commercial energy consumption from:
  - Oil products
  - Gas
  - Electricity
- Commercial enery consumed in kg of oil equivalent per LE 1000 of GDP
- Net commercial energy imports (as % of energy consumed
- Final energy consumption from :
  - Oil prooducts
  - Gas
  - Electricity
  - Coal
- % of final energy consumed by:
  - Transportation
  - Agriculture
  - Households & commercial
  - Other

The total land area by governorate is available in several CAPMAS' publication among which is the "Annual Statistical Yearbook, 1997". The data on cultivated and crop area were taken from the publications of the Ministry of Agriculture (MOA).

The indicators on water resources, withdrawals and consumption were derived from unpublished data from the Ministry of Pubic Works and Water resources (Centre of Water Resources).

Fish catch indicators were calculated from the data available in CAPMAS, Statistical Yearbook 1998.

The indicators on energy consumption for 1997/98 were computed from data in : "Energy in Egypt 1997/98" published by Agency of Energy Planning . The main

difference between commercial and final energy consumption is the exclusion in the later of the amounts of energy source (or sources) consumed as input in the production of another source (e.g. the use of natiural gas or oil products in the production of electricity). The commercial energy consumed in kg oil equivalent per LE 1000 of GDP in 1997/98 is based on GDP at market prices.

H. Communication

Communication profile is represented by a number of indicators. The major sources of data required for deriving these indicators are population censuses and annual reports on related areas. CAPMAS publishes these reports in cooperation with the concerned ministries, organizations, etc.
The communication indicators presented in this report are:

- Households with television %
- Households with radio %
- Daily newspaper circulation per 1000 people
- Average number of people served by one post office.
- Annual cinema attendance per 1000 people.
- Annual theater attendance per 1000 people
- Annual museum attendance per 1000 people.
- Library book per 1000 people
- Passenger cars per 1000 people.

The first two indicators, are taken from the last EDHS. The remaining indicators were derived from the latest abailable CAPMAS' annual reports for the related areas of communication.

All indicator are given at the national and regional levels with the exception of the daily newspaper circulation which is given at the national level only. The latter was calculated by dividing the annual circulation of daily newspapers by (365) to get daily circulation and relating the daily circulation to the population.

1. Economic Aspects

Economic indicators included in this report are as follows:

- GDP per capita (LE)
- GDP per capita (ppp$)
- Income share of lowest 40% of people %
- Ratio of highest 20% to lowest 20%
- Gini coefficient
- Total poor persons as % of the population
- Ultra poor persons as % of the population
- Total and ultra poor persons (000's)
- Wages of poor households as % of their income
- Wages of poor households as % of total wages
- % of total expenditure spent on social security
- % of total expenditure spent on defense, (in addition to % of public expenditure spent on education and health referred to earlier)
- Public expenditure on social security as % of GDP
- Public espenditure on defense, as % of GDP. (in addition to public expenditure on eduication or health as % of GDP referred to earlier)
- Total GDP (LE billions)
- Agricultural product as % of GDP
- Industrial product as % of GDP
- Services as % of GDP
- Private consumption as % of GDP
- Government expenditure as % of GDP
- Gross domestic investment as % of GDP
- Gross domestic saving as % of GDP
- Tax revenue as % of GDP
- Exports as % of GDP
- Imports as % of GDP
- Total civil external debt as % of GNP
- Civit external debt service ratio (as % of exports)
- Workers' remittances from abroad (LE millions)
- Export/Import ratio %
- Trade dependency (exports plus imports as % of GDP)
- Current account balance (LE millions)
- Gross international reserves including gold : (Us $ million Months of import coverage
- GDP at constant (1991.92) factor cost (LE billions)
- Annual growth rate of real GDP %
- Annual growth rate of per capital GDP %
- Consumer price index (1986/87=100)
- Annual growth rate of consumer price index %
- Wholesale price index (1986/87=100)
- Annual growth rate of wholesale price index

- Annual growth rate of exports %
- Annual growth rate of tax revenue %
- Direct taxes as % of total taxes
- Overall budget surplus (deficit) as % of GDP at market prices
- GDP per capita (LE) and GDP per capita (PPP$) were derived for the country and at the governorate level using national income accounts, provided directly by the Ministry of Planning (MOP), and the results of CAPMAS' Household Income and Expenditure Survey "(HIES) in the manner described in Section A above.

The results of HIES were used in deriving the next eight indicators. It is noteworthy, however, that a poor person (or household) is defined in the present report as the one whose expenditure is less than the specified poverty line urban and rural areas. The following procedure was adopted for estimating poverty lines.

(i) The composition required is set to accord with the observed diet pattern of the poor to reflect their condumption habits and tastes.

(ii) The actual diet per adult equivalent in the reference households was augmented to yield adequate energy intake, i.e.2200 caloires daily.

(iii) The cost of the selected diet per houshold was estimated using the actual current prices. The cost of such diet was estimated as LE 3264 and 3123 for urban and rural areas respectively. This is considered as food-based poverty line . Those who are below this line are referred to as ultra poor.

(iv) Non-food expenditure was estimated for households who are capable of reaching their food requirements, but choose not to so in order to get their essential non-food needs. This is the non-food expenditure of households whose total expenditure is just equal to the food- based poverty line. Non-foods is added to the food poverty line to yield poverty line used in this report (i.e, L.E. 4438 and3963 in urban and rural areas respectively).

(v) Indicators of public expenditure on various sectors were derived from the government budget published annually by the Ministry of Finance (MOF). The data required for deriving the next twelve indicators on national income accounts were provided directly by the Ministry of Planning (MOP). These data are regularly included in the successive follow-up reports. Nevertheless, the following observations are pertinent to this type of data;

a) The available estimates of sectoral value added were always given at the constant price of the Plan base-year. However the GDP expenditures (namely consumption and investment) are estimated at current prices. A resource-use balance is thus hard to compile annually.

b) The national income accounts have been frequently revised by the MOP. An explanation is rarely found for revisions of the estimates. It is understandable that the estimates for a late year can be only preliminary. But persistent revisions of the data not only reduce its credibility, but also complicate the time series necessary for trend analysis.

The eight indicators on "resource flow imbalances" were taken or derived from data available in the "Economic Bulletin" published by the National

Bank of Egypt (NBE) and the "Annual Report" of the Central Bank of Egypt (CBE), with the exception of trade dependency (i.e. exports plus imports as % GDP) which was calculated from data provided directly by the Ministry of Planning.

The indicators of GDP (growth rates and per capita growth rates), as well as growth rates of exports are calculated from data provided directly by the Ministry of Planning. Finally, the indicators of taxes and budget surplus (deficit) were calculated from data provided directly by the Ministry of Finance.

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Governorate Indicators

G.1 Human development index

	Life expectancy at birth % 2000	Adult literacy rate (15+) % 2000	Combined 1st, 2nd & 3rd level gross enrolment ratio (%) 1999/2000	Real GDP per capita (ppp$) 1999/2000	Life expectancy Index 2000	Education Index 2000	GDP Index 2000	Human Development Index 2000	Rank of Gov.
Cairo	67.7	75.2	70.3	8956.4	0.712	0.736	0.750	0.733	3
Alexandria	67.9	75.3	73.0	7105.7	0.715	0.745	0.712	0.724	4
Port-Said	68.5	79.1	71.9	10657.5	0.725	0.767	0.779	0.757	1
Suez	68.2	81.9	76.8	8066.1	0.720	0.802	0.733	0.752	2
Urban Govs	**68.1**	**77.9**	**71.4**	**8696.4**	**0.718**	**0.757**	**0.745**	**0.740**	**..**
Damietta	68.6	67.4	73.8	5506.3	0.727	0.695	0.669	0.697	6
Dakahlia	67.7	60.6	72.3	3852.6	0.712	0.645	0.609	0.655	12
Sharkia	67.2	61.7	71.2	3683.7	0.703	0.649	0.602	0.651	13
Kalyoubia	68.5	64.3	65.7	4749.5	0.725	0.648	0.644	0.672	10
Kafr El-Sheikh	66.6	53.4	71.4	4437.7	0.693	0.594	0.633	0.640	15
Gharbia	68.2	66.8	73.1	4681.7	0.720	0.689	0.642	0.684	7
Menoufia	68.8	63.5	70.8	3710.8	0.730	0.659	0.603	0.664	11
Behera	67.5	53.4	67.6	4116.2	0.708	0.581	0.620	0.636	16
Ismailia	66.9	81.1	73.6	5275.8	0.698	0.786	0.662	0.715	5
Lower Egypt:	**67.8**	**51.3**	**70.5**	**4398.0**	**0.713**	**0.577**	**0.632**	**0.641**	**..**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Giza	66.4	66.5	68.8	5420.3	0.690	0.673	0.666	0.676	9
Beni-Suef	65.6	52.6	60.9	2934.3	0.677	0.554	0.564	0.598	20
Fayoum	67.6	46.2	60.0	3182.4	0.710	0.508	0.578	0.599	18
Menia	65.5	49.2	62.7	3284.9	0.675	0.537	0.583	0.598	19
Assyout	65.4	46.7	62.9	2650.4	0.673	0.521	0.547	0.580	21
Suhag	66.7	48.4	66.7	2887.6	0.695	0.545	0.561	0.600	17
Quena	66.5	60.0	73.3	3462.1	0.692	0.644	0.592	0.643	14
Aswan	66.2	71.0	75.3	4211.1	0.687	0.724	0.624	0.678	8
Upper Egypt:	**66.2**	**55.1**	**66.1**	**3455.8**	**0.687**	**0.588**	**0.591**	**0.622**	**..**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Red Sea	..	85.6	..	..	..	..	..	..	..
New Valley	..	87.6	..	..	..	..	..	..	..
Matrouh	..	68.6	..	..	..	..	..	..	..
North Sinai	..	75.6	..	..	..	..	..	..	..
South Sinai	..	61.0	..	..	..	..	..	..	..
Frontier Govs	**..**	**75.7**	**..**	**5692.2**	**..**	**..**	**0.675**	**0.225**	**..**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**67.1**	**62.0**	**69.0**	**4877.9**	**0.702**	**0.643**	**0.649**	**0.665**	**..**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

G.2 Profile of human development

	Life expectancy at birth (Years) 2000	Households with access to Piped water (%) 1999	Sanitation (%) 1999	Literacy rate(15+) (%) 2000	Combined basic and secondary enrollment % 1999/2000	GDP per capita (LE) 1999/2000	Households with		
							Electricity % 2000	Radio % 2000	Television % 2000
Cairo	67.7	99.9	99.9	75.2	91.0	9727.3	99.9	90.9	95.9
Alexandria	67.9	99.7	99.8	75.3	90.5	7717.3	99.4	87.9	93.7
Port-Said	68.5	96.5	100.0	79.1	92.1	11574.9	99.8	93.1	97.6
Suez	68.2	99.7	100.0	81.9	95.4	8760.4	99.5	97.5	96.7
Urban Govs	**68.1**	**99.7**	**99.8**	**77.9**	**91.4**	**9445.0**	**99.7**	**90.3**	**95.3**
Damietta	68.6	99.2	99.4	67.4	93.6	5980.3	98.6	85.3	90.7
Dakahlia	67.7	85.3	99.3	60.6	86.8	4184.2	99.6	90.7	95.5
Sharkia	67.2	61.3	98.5	61.7	81.7	4000.8	97.2	75.4	86.2
Kalyoubia	68.5	94.1	98.7	64.3	79.0	5158.3	99.3	95.2	95.3
Kafr El-Sheikh	66.6	97.1	95.3	53.4	83.1	4819.7	98.8	78.2	85.6
Gharbia	68.2	95.0	97.4	66.8	88.7	5084.7	99.3	87.4	92.6
Menoufia	68.8	75.0	97.8	63.5	84.9	4030.2	98.6	88.6	88.8
Behera	67.5	79.7	97.2	53.4	79.2	4470.5	98.1	71.6	86.2
Ismailia	66.9	92.5	100.0	81.1	88.4	5729.9	99.2	91.3	94.9
Lower Egypt:	**67.8**	**83.8**	**98.1**	**51.3**	**83.7**	**4776.6**	**98.7**	**84.2**	**90.6**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**99.6**	**90.6**	**94.5**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**98.3**	**81.1**	**88.6**
Giza	66.4	94.0	98.9	66.5	81.2	5886.9	99.2	92.3	93.1
Beni-Suef	65.6	69.0	83.2	52.6	65.2	3186.9	91.0	50.8	78.8
Fayoum	67.6	99.4	81.4	46.2	65.5	3456.3	92.4	73.2	76.0
Menia	65.5	69.8	89.3	49.2	67.1	3567.7	93.0	57.8	78.6
Assyout	65.4	83.7	73.0	46.7	70.0	2878.5	92.8	66.6	78.4
Suhag	66.7	74.8	75.7	48.4	71.9	3136.2	94.5	66.2	83.9
Quena	66.5	80.8	86.2	60.0	80.8	3760.1	97.1	79.6	84.3
Aswan	66.2	99.0	88.3	71.0	87.9	4573.6	98.1	68.6	90.7
Upper Egypt:	**66.2**	**83.9**	**86.3**	**55.1**	**73.5**	**3753.3**	**95.3**	**73.3**	**84.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**99.0**	**85.8**	**93.2**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**93.3**	**66.3**	**79.1**
Red Sea	..	98.8	99.5	85.6	91.7	..	99.4	81.5	90.8
New Valley	..	97.9	98.4	87.6	95.1	..	99.0	96.9	95.3
Matrouh	..	63.1	77.9	68.6	72.6	..	70.5	71.9	61.3
North Sinai	..	78.6	91.1	75.6	77.9	..	93.7	80.4	83.5
South Sinai	..	78.8	88.5	61.0	73.6	..	95.6	82.3	84.1
Frontier Govs	**..**	**81.6**	**90.2**	**75.7**	**81.7**	**6182.2**	**89.7**	**81.9**	**81.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**89.3**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**74.6**	**..**
Egypt:	**67.1**	**87.4**	**94.5**	**62.0**	**81.1**	**5297.8**	**97.7**	**81.9**	**89.4**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**99.5**	**89.3**	**94.5**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**95.9**	**74.6**	**84.3**

G.3 Profile of human deprivation

Thousands

	Without access to piped water 1996	Without access to sanitation 1996	Children dying before age 5 1998	Children not in basic or secondary schools 1999/2000	Illiterates (15+) 2000	Poor persons (% of total) Total 2000	Poor persons (% of total) Ultra poor 2000	Malnourished children below age 5 1997	Unemployed persons 15 + Total 1999	Unemployed persons 15 + Female 1999
Cairo	207.0	567.2	5.2	368.7	1806.1	638.9	161.1	..	173.8	94.9
Alexandria	6.0	447.6	2.4	146.0	883.4	404.7	86.0	..	34.1	19.8
Port-Said	0.1	48.8	0.3	24.8	105.7	13.2	1.0	..	16.4	8.2
Suez	0.3	41.6	0.4	19.2	81.8	18.9	1.8	..	12.3	8.9
Urban Govs	**213.4**	**1105.1**	**8.3**	**558.7**	**2614.6**	**1075.8**	**249.8**	**109.5**	**236.6**	**131.8**
Damietta	9.0	443.9	0.7	49.4	324.3	9.0	0.3	..	16.4	11.0
Dakahlia	442.2	1631.0	3.6	345.1	1788.7	804.4	138.9	..	151.0	80.2
Sharkia	1058.9	2606.8	4.5	394.0	1796.6	754.3	121.6	..	143.2	64.8
Kalyoubia	924.3	1950.8	2.6	309.3	1279.6	433.3	103.8	..	69.7	42.4
Kafr El-Sheikh	66.1	1642.3	1.6	217.3	1119.9	161.7	21.1	..	106.3	52.7
Gharbia	599.2	2410.2	2.5	297.5	1215.4	370.8	74.6	..	111.8	65.2
Menoufia	924.7	2366.2	2.4	217.4	1063.6	631.9	106.8	..	33.1	22.6
Behera	853.6	3116.7	2.5	386.2	2022.3	452.7	63.4	..	149.6	86.7
Ismailia	134.2	411.0	0.8	44.2	149.1	62.0	7.8	..	17.6	10.5
Lower Egypt:	**5012.2**	**16578.9**	**21.2**	**2260.5**	**13599.1**	**3680.0**	**638.2**	**262.3**	**798.7**	**436.1**
Urban	**334.4**	**1890.9**	**..**	**..**	**..**	**..**	**..**	**53.1**	**213.5**	**123.5**
Rural	**4677.8**	**14688.0**	**..**	**..**	**..**	**..**	**..**	**209.2**	**585.2**	**312.6**
Giza	607.7	2065.2	5.5	371.2	1744.5	982.3	229.4	..	54.9	18.2
Beni-Suef	472.4	1598.7	4.4	288.9	977.4	1054.8	416.8	..	26.1	14.5
Fayoum	31.3	1665.9	3.0	175.5	1187.8	781.1	240.8	..	26.0	13.8
Menia	1511.7	3067.4	7.9	360.1	1872.7	898.1	214.6	..	70.0	34.3
Assyout	793.0	2076.5	7.2	336.2	1664.0	1812.4	773.8	..	73.5	42.0
Suhag	1253.1	2820.2	6.2	391.7	1796.3	1585.3	599.8	..	63.8	26.1
Quena	922.2	2060.0	5.7	243.6	1235.9	1027.7	398.1	..	132.5	20.4
Aswan	42.8	762.6	1.5	58.9	302.3	255.7	72.3	..	52.0	8.8
Upper Egypt:	**5634.2**	**16116.5**	**41.4**	**2226.1**	**10736.8**	**8397.3**	**2945.6**	**427.0**	**498.8**	**178.1**
Urban	**405.0**	**2955.5**	**..**	**..**	**..**	**..**	**..**	**64.7**	**260.1**	**88.1**
Rural	**5229.2**	**13161.0**	**..**	**..**	**..**	**..**	**..**	**362.3**	**238.7**	**90.0**
Red Sea	11.0	118.7	0.1	5.4	24.8	..	..	..	3.5	3.0
New Valley	4.0	72.7	0.1	6.9	19.3	..	..	..	8.8	5.3
Matrouh	63.6	204.6	0.3	19.0	75.4	..	..	..	8.9	1.7
North Sinai	51.2	238.9	0.4	19.0	68.4	..	..	..	5.0	3.7
South Sinai	16.9	28.0	0.1	3.4	23.5	..	..	..	0.0	0.0
Frontier Govs	**147.1**	**662.9**	**1.0**	**53.6**	**221.0**	**..**	**..**	**..**	**26.2**	**13.7**
Urban	**0.3**	**360.9**	**..**	**..**	**..**	**..**	**..**	**..**	**18.4**	**10.1**
Rural	**146.9**	**302.0**	**..**	**..**	**..**	**..**	**..**	**..**	**7.8**	**3.6**
Egypt:	**11006.9**	**34463.4**	**71.0**	**2826.7**	**24567.6**	**13153.0**	**3833.6**	**798.8**	**1480.4**	**754.2**
Urban	**953.0**	**6312.5**	**..**	**..**	**..**	**..**	**..**	**227.3**	**648.7**	**414.1**
Rural	**10053.9**	**28151.0**	**..**	**..**	**..**	**..**	**..**	**571.5**	**831.7**	**340.1**

G.4 Trends in human development

	Life expectancy at birth (Years)		Infant mortality (per 1000 live births)		Population with access to piped water (%)		Literacy rate (15+) (%)		Combined basic and secondary enrollment	
	1976	2000	1961	1998	1976	1996	1960	2000	1960*	1999/2000
Cairo	57.0	67.7	151.0	25.7	91.1	96.9	48.9	75.2	58.9	91.0
Alexandria	59.1	67.9	139.0	25.1	94.9	99.8	45.3	75.3	57.6	90.5
Port-Said	59.2	68.5	108.0	22.8	90.5	100.0	42.2	79.1	63.4	92.1
Suez	52.6	68.2	157.0	26.3	92.9	99.9	38.3	81.9	68.0	95.4
Urban Govs	**57.6**	**68.1**	**147.0**	**25.4**	**92.3**	**98.0**	**46.9**	**77.9**	**59.1**	**91.4**
Damietta	57.5	68.6	82.0	17.3	89.5	99.0	31.3	67.4	45.7	93.6
Dakahlia	56.9	67.7	71.0	20.4	77.4	89.5	27.9	60.6	42.9	86.8
Sharkia	54.6	67.2	72.0	24.5	72.8	75.2	21.5	61.7	36.3	81.7
Kalyoubia	53.9	68.5	137.0	23.0	62.3	71.9	24.8	64.3	43.4	79.0
Kafr El-Sheikh	56.6	66.6	60.0	18.4	73.2	97.0	15.3	53.4	23.2	83.1
Gharbia	55.5	68.2	107.0	21.3	76.0	82.4	25.3	66.8	45.2	88.7
Menoufia	54.8	68.8	130.0	23.6	71.2	66.4	24.2	63.5	46.2	84.9
Behera	56.0	67.5	77.0	16.6	47.8	78.6	18.8	53.4	28.1	79.2
Ismailia	57.7	66.9	99.0	22.7	56.3	81.2	29.2	81.1	52.7	88.4
Lower Egypt:	**55.6**	**67.8**	**93.0**	**21.1**	**69.2**	**80.5**	**23.1**	**51.3**	**38.9**	**83.7**
Urban	**..**	**..**	**..**	**..**	**80.8**	**95.3**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**65.0**	**75.0**	**..**	**..**	**..**	**..**
Giza	55.2	66.4	126.0	30.0	61.1	87.2	27.9	66.5	45.8	81.2
Beni-Suef	50.1	65.6	106.0	42.8	67.7	74.6	18.6	52.6	43.6	65.2
Fayoum	49.3	67.6	151.0	30.9	83.0	98.4	16.3	46.2	40.9	65.5
Menia	52.1	65.5	108.0	42.7	58.9	54.2	18.1	49.2	35.2	67.1
Assyout	53.2	65.4	107.0	49.0	58.4	71.4	17.4	46.7	37.8	70.0
Suhag	54.7	66.7	86.0	34.3	56.2	59.7	14.2	48.4	27.0	71.9
Quena	53.6	66.5	80.0	39.1	45.6	67.0	13.5	60.0	28.7	80.8
Aswan	51.4	66.2	109.0	49.8	67.0	95.6	20.0	71.0	45.8	87.9
Upper Egypt:	**53.0**	**66.2**	**102.0**	**38.6**	**60.4**	**73.9**	**17.8**	**55.1**	**36.5**	**73.5**
Urban	**..**	**..**	**..**	**..**	**72.4**	**93.8**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**55.2**	**65.1**	**..**	**..**	**..**	**..**
Red Sea	..	..	114.0	22.5	77.5	91.4	37.7	85.6	..	91.7
New Valley	..	..	181.0	27.0	42.2	97.1	20.3	87.6	..	95.1
Matrouh	..	..	98.0	22.5	42.0	69.7	12.3	68.6	..	72.6
North Sinai	..	..	94.0	25.7	..	79.6	39.9	75.6	..	77.9
South Sinai	..	..		17.1	..	61.6		61.0	..	73.6
Frontier Govs	**..**	**..**	**124.0**	**23.9**	**47.8**	**81.0**	**22.5**	**75.7**	**..**	**81.7**
Urban	**..**	**..**	**..**	**..**	**63.6**	**99.9**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**28.7**	**54.1**	**..**	**..**	**..**	**..**
Egypt:	**55.0**	**67.1**	**108.0**	**29.2**	**70.9**	**81.4**	**25.8**	**62.0**	**42.0**	**81.1**
Urban	**..**	**..**	**..**	**..**	**84.2**	**96.2**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**60.6**	**70.4**	**..**	**..**	**..**	**..**

G.5 Human capital formation

	Literacy rate (15+)		Basic & secondary enrolment ratio		% of population 15+ with secondary or higher education		Professional & technical staff (as % of labor force (15+)	
	Total 2000	Female 2000	Total 1999/2000	Female 1999/2000	Total 1996	Female 1996	Total 1999	Female 1999
Cairo	75.2	67.5	91.5	93.4	43.4	38.8	31.0	38.0
Alexandria	75.3	67.4	90.5	91.1	36.5	33.2	25.1	49.7
Port-Said	79.1	72.5	92.1	93.5	45.4	43.0	31.3	49.1
Suez	81.9	67.9	95.4	97.8	39.0	33.9	33.2	32.7
Urban Govs	**77.9**	**68.8**	**91.4**	**92.9**	**41.3**	**37.1**	**29.6**	**40.5**
Damietta	67.4	61.9	93.6	96.3	27.6	27.8	16.2	35.3
Dakahlia	60.6	48.5	86.8	87.8	29.7	25.5	18.3	18.1
Sharkia	61.7	49.0	81.7	79.4	26.7	21.1	19.1	24.1
Kalyoubia	64.3	50.7	79.0	77.5	29.4	24.4	17.1	25.3
Kafr El-Sheikh	53.4	38.2	83.1	79.6	24.3	18.8	14.3	21.5
Gharbia	66.8	50.9	88.7	87.6	31.8	26.5	17.0	16.9
Menoufia	63.5	47.6	84.9	82.8	29.9	24.1	16.7	12.9
Behera	53.4	38.5	79.2	72.3	22.2	16.1	13.7	18.9
Ismailia	81.1	66.4	88.4	87.5	33.4	28.6	25.8	38.9
Lower Egypt:	**51.3**	**32.9**	**83.7**	**81.6**	**27.9**	**22.8**	**17.0**	**19.8**
Urban	**..**	**..**	**..**	**..**	**39.0**	**35.0**	**..**	**26.3**
Rural	**..**	**..**	**..**	**..**	**23.4**	**17.8**	**..**	**17.1**
Giza	66.5	57.2	81.2	78.3	32.7	26.9	22.2	41.5
Beni-Suef	52.6	35.5	65.2	54.5	21.6	14.3	13.5	11.7
Fayoum	46.2	34.1	65.5	53.2	20.1	14.0	14.5	31.2
Menia	49.2	34.6	67.1	53.6	20.8	13.1	13.2	11.2
Assyout	46.7	34.7	70.0	60.0	22.9	15.3	17.9	27.5
Suhag	48.4	32.7	71.9	62.0	19.3	11.2	14.0	17.5
Quena	60.0	47.7	80.8	72.1	19.8	10.4	14.7	23.6
Aswan	71.0	71.2	87.9	84.4	30.5	21.2	17.4	30.5
Upper Egypt:	**55.1**	**43.5**	**73.5**	**64.8**	**24.0**	**16.5**	**16.3**	**20.5**
Urban	**..**	**..**	**..**	**..**	**39.8**	**33.7**	**..**	**31.4**
Rural	**..**	**..**	**..**	**..**	**16.0**	**8.0**	**..**	**14.1**
Red Sea	85.6	77.3	91.7	92.6	41.2	28.6	32.2	15.3
New Valley	87.6	83.0	95.1	92.2	38.7	31.1	29.3	28.6
Matrouh	68.6	40.9	72.6	59.3	17.4	11.3	20.1	31.5
North Sinai	75.6	59.5	77.9	71.0	30.5	22.7	31.5	31.7
South Sinai	61.0	76.9	73.6	69.6	39.9	23.8	..	..
Frontier Govs	**75.7**	**67.5**	**81.7**	**75.4**	**31.4**	**22.3**	**28.1**	**28.1**
Urban	**..**	**..**	**..**	**..**	**39.0**	**30.3**	**..**	**31.2**
Rural	**..**	**..**	**..**	**..**	**20.0**	**11.1**	**..**	**21.1**
Egypt:	**62.0**	**49.6**	**81.1**	**77.0**	**29.3**	**23.5**	**19.2**	**23.9**
Urban	**..**	**..**	**..**	**..**	**40.2**	**35.6**	**..**	**31.2**
Rural	**..**	**..**	**..**	**..**	**20.3**	**13.6**	**..**	**17.9**

G.6 Status of women

	Life expectancy at birth (years) 2000	Maternal mortality rate (per 100000 live births) 2000	Average age at first marriage (years) 2000	Enrollment ratios (gross)				Females 15+ with secondary or higher education % 1996	Legis-lative & managerial staff(% females) 1999	Professi-onal & techni-cal staff (% females) 1999	Women in labor force (as % of total) 1999
				Basic education							
				Total 1999/2000	Primary 1999/2000	Preparatory 1999/2000	Secondary 1999/2000				
Cairo	69.0	104.0	25.7	103.1	99.5	103.0	61.1	38.8	13.1	38.0	23.3
Alexandria	69.1	146.1	26.9	107.0	105.9	102.0	51.0	33.2	11.4	49.7	13.8
Port-Said	68.9	79.0	24.6	99.0	92.3	103.9	66.3	43.0	10.3	49.1	27.2
Suez	69.1	293.3	23.7	102.9	94.6	110.4	67.8	33.9	10.4	32.7	26.8
Urban Govs	**69.0**	**121.2**	**25.8**	**104.1**	**101.0**	**103.0**	**58.7**	**37.1**	**12.4**	**40.5**	**21.2**
Damietta	69.6	75.9	22.9	104.6	96.9	110.8	63.6	27.8	11.0	35.3	16.3
Dakahlia	69.1	58.2	23.0	98.3	94.0	98.9	60.8	25.5	12.4	18.1	23.4
Sharkia	68.7	64.5	22.6	93.4	91.9	89.9	53.9	21.1	10.7	24.1	20.6
Kalyoubia	69.3	53.6	22.8	91.0	91.2	85.2	45.1	24.4	11.0	25.3	19.4
Kafr El-Sheikh	68.3	49.9	23.3	92.9	90.2	91.5	53.8	18.8	10.5	21.5	21.8
Gharbia	69.7	110.8	23.7	98.4	96.1	96.1	58.9	26.5	15.2	16.9	29.7
Menoufia	70.1	60.8	23.0	95.9	94.2	92.8	52.6	24.1	16.1	12.9	31.9
Behera	68.6	88.9	23.3	88.4	88.5	82.4	41.0	16.1	9.0	18.9	18.2
Ismailia	68.0	169.0	24.1	100.9	98.7	98.5	55.4	28.6	15.4	38.9	19.4
Lower Egypt:	**69.1**	**68.6**	**23.1**	**94.5**	**92.6**	**91.7**	**52.7**	**22.8**	**12.3**	**19.8**	**23.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**35.0**	**13.4**	**26.3**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**17.8**	**10.7**	**17.1**	**..**
Giza	67.2	114.9	23.4	93.9	94.3	86.9	44.7	26.9	10.4	41.5	11.3
Beni-Suef	66.5	78.5	21.4	67.9	69.6	59.9	35.3	14.3	15.7	11.7	31.1
Fayoum	68.4	76.4	21.6	67.5	70.1	57.5	34.5	14.0	13.3	31.2	10.2
Menia	66.2	78.5	21.6	68.4	69.5	61.1	34.6	13.1	11.9	11.2	29.0
Assyout	66.0	282.9	22.5	75.3	75.8	69.0	35.8	15.3	10.6	27.5	16.2
Suhag	67.2	159.6	22.3	80.2	79.3	75.5	33.3	11.2	7.0	17.5	13.9
Quena	66.1	200.7	22.4	88.9	85.5	89.0	44.2	10.4	5.6	23.6	13.7
Aswan	67.2	70.2	23.9	100.0	93.2	105.6	54.1	21.2	8.8	30.5	11.3
Upper Egypt:	**66.8**	**112.8**	**22.4**	**80.2**	**80.0**	**74.9**	**39.1**	**16.5**	**10.2**	**20.5**	**17.8**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**33.7**	**12.5**	**31.4**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**8.0**	**5.8**	**14.1**	**..**
Red Sea	..	..	25.4	104.7	100.5	105.1	68.4	28.6	6.1	15.3	20.5
New Valley	..	..	23.5	98.9	95.4	98.9	70.8	31.1	10.7	28.6	36.8
Matrouh	..	..	29.2	78.9	80.9	68.2	23.3	11.3	2.8	31.5	13.0
North Sinai	..	..	25.4	88.1	87.2	83.0	42.4	22.7	10.1	31.7	26.6
South Sinai	..	..	28.3	88.0	84.2	88.7	40.7	23.8	6.0	..	..
Frontier Govs	**..**	**..**	**26.0**	**90.5**	**89.0**	**86.7**	**47.0**	**22.3**	**6.5**	**28.1**	**24.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**30.3**	**7.4**	**31.2**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**11.1**	**3.5**	**21.1**	**..**
Egypt:	**68.1**	**90.5**	**23.3**	**90.5**	**88.9**	**87.2**	**48.8**	**23.5**	**11.6**	**23.9**	**21.0**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**35.6**	**12.6**	**31.2**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**13.6**	**8.6**	**17.9**	**..**

G.7 Female-male gaps

Females as percentage of males

	Life expectancy 2000	Population 2000	Literacy rate 15+ 1960	Literacy rate 15+ 2000	Primary enrollment 1960 *	Primary enrollment 1999/2000	Preparatory enrollment 1999/2000	Secondary enrollment 1999/2000	Labor force (15+) 1999
Cairo	104.3	95.1	50.0	81.7	80.5	94.4	96.7	104.5	30.4
Alexandria	103.9	95.8	48.0	81.3	75.7	90.3	95.0	94.7	16.1
Port-Said	101.5	95.1	50.0	85.0	83.7	91.9	99.6	104.3	37.4
Suez	102.9	95.8	40.0	71.3	69.1	92.4	94.9	108.5	36.6
Urban Govs	**103.9**	**95.3**	**48.0**	**79.5**	**78.7**	**92.8**	**96.2**	**101.5**	**27.0**
Damietta	103.2	95.8	44.0	85.1	79.6	87.4	108.5	122.4	19.4
Dakahlia	104.5	96.4	28.0	67.1	65.8	91.1	99.7	103.5	30.6
Sharkia	105.0	94.5	21.0	66.6	55.9	89.8	89.7	90.3	25.9
Kalyoubia	102.6	93.8	19.0	65.8	59.8	89.8	91.9	96.2	24.1
Kafr El-Sheikh	105.5	98.9	20.0	55.5	56.9	89.6	90.6	89.1	27.9
Gharbia	104.8	98.1	24.0	61.7	61.7	91.8	95.1	96.8	42.3
Menoufia	104.1	94.4	20.0	60.7	54.4	89.2	88.1	95.0	46.9
Behera	103.7	95.9	21.0	56.7	52.8	82.7	81.7	84.3	22.2
Ismailia	103.8	96.2	33.0	69.7	60.5	88.7	94.7	94.6	24.1
Lower Egypt:	**104.3**	**95.8**	**23.0**	**65.6**	**59.7**	**88.9**	**91.6**	**94.6**	**30.1**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**30.4**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**30.0**
Giza	102.9	93.2	31.0	76.2	58.1	87.8	87.8	87.9	12.7
Beni-Suef	103.0	96.3	20.0	51.1	69.4	71.5	63.0	71.4	45.1
Fayoum	102.8	92.8	26.0	59.3	74.2	74.2	65.4	66.6	11.3
Menia	102.4	95.9	23.0	54.4	54.2	70.7	60.4	61.3	40.8
Assyout	102.1	95.6	25.0	59.3	54.0	73.7	70.4	73.5	19.4
Suhag	101.8	95.7	18.0	51.1	35.8	76.7	69.9	65.0	16.1
Quena	100.6	98.6	21.0	47.8	53.1	83.4	78.7	70.4	15.9
Aswan	103.5	99.5	22.0	75.5	60.9	91.7	88.5	86.2	12.8
Upper Egypt:	**102.2**	**87.7**	**23.0**	**60.1**	**55.6**	**78.5**	**73.6**	**71.9**	**21.6**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**22.7**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**21.1**
Red Sea	..	72.9	54.0	84.9	..	91.1	94.0	100.9	25.7
New Valley	..	93.4	21.0	90.2	..	89.5	81.7	92.4	58.2
Matrouh	..	90.2	17.0	43.9	..	69.4	59.0	53.0	14.9
North Sinai	..	92.8	37.0	66.1	..	85.7	80.7	69.7	36.2
South Sinai	..	61.1		78.4	..	83.3	76.7	85.0	..
Frontier Govs	**..**	**85.3**	**25.0**	**72.7**	**..**	**82.1**	**77.5**	**77.1**	**31.9**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**52.4**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**17.1**
Egypt:	**103.3**	**95.5**	**30.0**	**67.1**	**63.2**	**85.2**	**85.4**	**87.0**	**26.6**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**27.6**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**25.9**

G.8 Rural-urban gaps

	Rural population (as % of total)		Households with access to: Piped water %		Sanitation %		Literacy (15+) %		Rural-urban disparity		
			Rural	Urban	Rural	Urban	Rural	Urban	Water	Sanitation	Literacy
	1960	1999	1999	1999	1999	1999	2000	2000	1999	1999	2000
Cairo	0.0	0.0	99.9	..	99.9	..	73.4	..	..	..	..
Alexandria	0.0	0.0	99.7	..	99.8	..	72.9	..	..	..	..
Port-Said	0.0	0.0	96.5	..	100.0	..	76.0	..	..	..	..
Suez	0.0	0.0	99.7	..	100.0	..	72.4	..	..	..	..
Urban Govs	**0.0**	**0.0**	**99.7**	**..**	**99.8**	**..**	**73.3**	**..**	**..**	**..**	**..**
Damietta	75.1	71.8	100.0	98.8	100.0	99.1	69.6	59.8	98.8	99.1	86.0
Dakahlia	81.9	72.5	99.7	78.7	100.0	99.0	69.3	53.9	78.9	99.0	77.9
Sharkia	83.8	77.3	98.6	49.0	99.5	98.3	70.6	47.7	49.7	98.8	67.5
Kalyoubia	74.6	59.4	99.8	88.6	100.0	97.3	68.1	54.8	88.8	97.3	80.5
Kafr El-Sheikh	83.0	76.8	98.8	96.3	98.2	94.1	61.8	42.1	97.5	95.8	68.1
Gharbia	71.8	68.9	100.0	91.6	99.2	96.3	73.9	53.7	91.6	97.1	72.7
Menoufia	86.4	79.6	100.0	65.2	98.8	97.3	69.7	55.5	65.2	98.5	79.7
Behera	81.8	76.9	88.9	76.5	98.9	96.6	64.0	41.9	86.1	97.7	65.5
Ismailia	0.0	50.7	98.0	86.8	100.0	100.0	74.9	53.1	88.6	100.0	70.9
Lower Egypt:	**78.3**	**72.3**	**98.4**	**76.5**	**99.4**	**97.5**	**69.1**	**50.3**	**77.7**	**98.1**	**72.8**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Giza	67.6	45.9	98.4	86.7	99.6	97.8	72.5	48.6	88.1	98.2	67.0
Beni-Suef	78.6	76.5	98.3	60.8	97.5	79.2	61.2	35.5	61.9	81.2	58.0
Fayoum	80.7	77.4	100.0	99.2	97.3	75.3	58.5	32.1	99.2	77.4	54.9
Menia	82.8	80.5	96.7	62.5	97.4	87.1	65.0	33.2	64.6	89.4	51.1
Assyout	78.2	72.7	99.2	75.8	96.2	61.3	63.5	33.4	76.4	63.7	52.6
Suhag	81.9	78.1	99.2	69.5	92.2	72.0	60.7	35.3	70.1	78.1	58.1
Quena	86.3	75.6	97.9	75.0	95.2	83.2	61.8	36.5	76.6	87.4	59.1
Aswan	74.6	56.9	100.0	98.2	97.7	80.8	69.1	55.7	98.2	82.7	80.6
Upper Egypt:	**79.4**	**69.3**	**98.6**	**75.6**	**97.7**	**79.9**	**66.5**	**37.4**	**76.7**	**81.8**	**56.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Red Sea	0.0	26.6	100.0	90.5	99.3	100.0	75.6	65.3	90.5	100.7	86.3
New Valley	0.0	51.3	100.0	96.1	96.7	100.0	79.9	61.5	96.1	103.4	77.0
Matrouh	0.0	43.2	93.5	9.0	97.1	43.6	59.5	36.4	9.6	44.9	61.2
North Sinai	0.0	40.7	99.4	24.2	99.4	69.5	74.0	9.9	24.3	69.7	52.9
South Sinai	0.0	52.5	69.8	90.0	92.1	84.0	86.9	43.4	28.9	91.2	49.9
Frontier Govs	**..**	**41.3**	**..**	**..**	**..**	**..**	**72.6**	**47.0**	**..**	**..**	**64.7**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**62.0**	**57.5**	**99.0**	**75.9**	**99.2**	**89.6**	**70.4**	**44.8**	**76.7**	**90.3**	**63.7**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

G.9 Child survival and development

	Pregnant women with prenatal care % 2000	Maternal mortality rate (per 100000 live births) 2000	Infant mortality rate			Under five mortality rate			Children ever breastfed 2000	Births attended by health personnel 2000	Children 12 _ 23 month old fully immun-ized %* 2000	Under weight (below age 5 years) % 2000
			Registered		Adjusted	Registered		Adjusted				
			1961	1998	1998	1961	1998	1998				
Cairo	..	104.0	151.0	25.7	25.7	240.0	32.0	31.2	..	..	..	..
Alexandria	..	146.1	139.0	25.1	25.1	216.0	29.9	30.0	..	..	..	..
Port-Said	..	79.0	108.0	22.8	22.8	147.0	26.7	26.7	..	..	..	..
Suez	..	293.3	163.0	26.3	30.0	236.0	30.1	34.3	..	..	..	..
Urban Govs	**74.1**	**121.2**	**147.0**	**25.4**	**26.3**	**231.0**	**31.1**	**31.2**	**95.6**	**76.3**	**91.9**	**2.5**
Damietta	..	75.9	82.0	17.3	22.9	136.0	22.0	27.4	..	..	..	..
Dakahlia	..	58.2	71.0	20.4	25.7	179.0	27.5	32.5	..	..	..	..
Sharkia	..	64.5	72.0	24.5	28.2	159.0	33.2	36.6	..	..	..	..
Kalyoubia	..	53.6	137.0	23.0	23.5	297.0	29.9	30.3	..	..	..	..
Kafr El-Sheikh	..	49.9	60.0	18.4	21.3	125.0	26.2	29.0	..	..	..	..
Gharbia	..	110.8	107.0	21.3	22.3	215.0	27.5	28.8	..	..	..	..
Menoufia	..	60.8	130.0	23.6	24.1	275.0	31.8	32.3	..	..	..	..
Behera	..	88.9	77.0	16.6	17.2	158.0	23.2	23.6	..	..	..	..
Ismailia	..	169.0	99.0	22.7	26.6	161.0	30.4	34.9	..	..	..	..
Lower Egypt:	**53.5**	**68.6**	**93.0**	**21.1**	**23.9**	**194.0**	**28.4**	**30.7**	**95.0**	**51.5**	**92.5**	**2.6**
Urban	**71.2**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**93.4**	**72.5**	**92.6**	**1.9**
Rural	**47.2**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**95.6**	**44.1**	**92.5**	**2.8**
Giza	..	114.9	126.0	30.0	32.1	254.0	39.8	41.8	..	..	..	..
Beni-Suef	..	78.5	106.0	42.8	50.0	196.0	60.9	67.8	..	..	..	..
Fayoum	..	76.4	151.0	30.9	34.0	290.0	44.0	46.7	..	..	..	..
Menia	..	78.5	108.0	42.7	54.2	213.0	59.3	66.5	..	..	..	..
Assyout	..	282.9	107.0	49.0	56.8	207.0	64.2	72.0	..	..	..	..
Suhag	..	159.6	86.0	34.3	42.5	173.0	48.2	56.5	..	..	..	..
Quena	..	200.7	80.0	39.1	51.2	154.0	53.2	61.2	..	..	..	..
Aswan	..	70.2	109.0	49.8	49.8	191.0	65.8	65.8	..	..	..	..
Upper Egypt:	**44.3**	**112.8**	**102.0**	**38.6**	**44.9**	**199.0**	**52.8**	**58.7**	**95.9**	**34.2**	**92.3**	**6.3**
Urban	**65.1**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**95.1**	**59.0**	**95.0**	**5.0**
Rural	**36.9**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**96.2**	**25.4**	**91.3**	**6.8**
Red Sea	..	..	191.0	22.5	22.5	266.0	29.7	29.7	..	..	..	..
New Valley	..	..	181.0	27.0	29.7	334.0	31.7	35.0	..	..	..	..
Matrouh	..	..	98.0	22.5	35.1	176.0	28.6	41.6	..	..	..	..
North Sinai	..	..	94.0	25.7	41.7	136.0	34.1	50.0	..	..	..	..
South Sinai	..	..		17.1	31.7		27.9	42.6	..	..	..	..
Frontier Govs	**44.6**	**..**	**124.0**	**23.9**	**34.1**	**210.0**	**31.0**	**41.3**	**95.5**	**40.3**	**85.6**	**2.3**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**52.9**	**90.5**	**108.0**	**29.2**	**32.4**	**204.0**	**39.1**	**42.1**	**95.5**	**48.2**	**92.2**	**4.0**
Urban	**70.4**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**94.8**	**69.8**	**92.8**	**3.0**
Rural	**41.9**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**95.9**	**34.6**	**91.8**	**4.7**

* Those who have received BCG , measles and three doses of DPT and pilio vaccines.

G.10 Health profile

	Households with access to		Physicians per 10000 people	Nurses per 10000 people	Nurse / physician ratio %	Maternal mortality rate (per 100000	Beds per 10000 people		Health units per 100000
	Piped water % 1999	Sanitation % 1999	MOH* 1998	MOH* 1998	MOH* 1998	of live births) 1998	Total 1998	MOH* 1998	population 1998
Cairo	99.9	99.9	7.8	7.7	99.0	..	43.0	35.0	4.9
Alexandria	99.7	99.8	14.4	11.4	79.0	..	32.0	28.0	3.7
Port-Said	96.5	100.0	10.8	24.8	229.0	..	33.0	32.0	4.1
Suez	99.7	100.0	7.0	16.8	241.0	..	28.0	23.0	6.3
Urban Govs	**99.7**	**99.8**	**9.9**	**9.9**	**100.0**	**122.0**	**39.0**	**32.0**	**4.6**
Damietta	99.2	99.4	10.4	36.6	351.0	..	31.0	28.0	4.5
Dakahlia	85.3	99.3	9.3	11.5	123.0	..	16.0	15.0	3.7
Sharkia	61.3	98.5	5.4	8.3	154.0	..	14.0	13.0	2.4
Kalyoubia	94.1	98.7	4.1	10.2	251.0	..	24.0	23.0	2.9
Kafr El-Sheikh	97.1	95.3	6.9	16.1	234.0	..	16.0	16.0	2.5
Gharbia	95.0	97.4	10.9	26.6	244.0	..	20.0	17.0	4.1
Menoufia	75.0	97.8	4.4	12.3	280.0	..	15.0	14.0	3.4
Behera	79.7	97.2	4.8	12.5	263.0	..	11.0	10.0	2.5
Ismailia	92.5	100.0	4.9	12.1	245.0	..	26.0	24.0	4.2
Lower Egypt:	**83.8**	**98.1**	**6.7**	**14.3**	**215.0**	**91.0**	**17.0**	**16.0**	**3.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Giza	94.0	98.9	8.8	8.3	95.0	..	20.0	13.0	4.6
Beni-Suef	69.0	83.2	4.2	14.3	344.0	..	13.0	13.0	3.6
Fayoum	99.4	81.4	4.0	11.3	284.0	..	10.0	10.0	2.2
Menia	69.8	89.3	4.9	11.7	238.0	..	15.0	14.0	2.9
Assyout	83.7	73.0	4.8	11.3	237.0	..	19.0	17.0	3.8
Suhag	74.8	75.7	4.3	3.0	70.0	..	13.0	12.0	3.0
Quena	80.8	86.2	4.2	3.3	80.0	..	10.0	10.0	2.9
Aswan	99.0	88.3	8.1	15.1	186.0	..	23.0	19.0	5.5
Upper Egypt:	**83.9**	**86.3**	**5.6**	**8.9**	**160.0**	**92.0**	**15.0**	**13.0**	**3.5**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Red Sea	98.8	99.5	9.8	18.0	185.0	..	19.0	18.0	8.0
New Valley	97.9	98.4	8.3	36.4	441.0	..	50.0	50.0	10.3
Matrouh	63.1	77.9	16.0	13.2	82.0	..	28.0	24.0	9.2
North Sinai	78.6	91.1	7.7	18.9	245.0	..	17.0	17.0	3.9
South Sinai	78.8	88.5	17.2	32.5	189.0	..	34.0	34.0	15.8
Frontier Govs	**81.6**	**90.2**	**11.0**	**21.2**	**193.0**	**..**	**27.0**	**26.0**	**8.0**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**87.4**	**94.5**	**6.9**	**11.6**	**168.0**	**96.0**	**21.0**	**18.0**	**3.6**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

G.11 Education flows

	Primary intake rate (%)		Primary enrollment ratio(gross) (%)	Primary repeaters (as % of primary enrollment)	Transition to preparatory (as % of primary completers)	Preparatory enrollment ratio (%)	Preparatory repeaters (as % of preparatory enrollment)	Transition to secondary (as % of preparatory completers)	Secondary enrollment ratio (%)	Secondary repeaters (as % of secondary enrollment)
	Total 1999/2000	Female 1999/2000	1999/2000	1999/2000	1999/2000	1999/2000	1999/2000	1999/2000	1999/2000	1999/2000
Cairo	103.4	104.9	105.9	4.0	100.8	100.2	6.3	91.6	59.1	2.2
Alexandria	97.0	97.7	115.3	7.1	98.0	100.0	10.9	85.9	49.0	2.5
Port-Said	90.5	94.4	98.8	4.6	101.5	101.0	2.3	96.6	65.1	2.5
Suez	97.2	100.4	101.5	5.5	103.4	108.8	10.2	93.3	63.4	2.5
Urban Govs	**100.5**	**102.0**	**108.3**	**5.1**	**100.1**	**100.5**	**7.7**	**90.3**	**56.6**	**2.3**
Damietta	103.6	103.4	106.9	7.9	96.9	102.7	12.2	95.3	56.5	1.7
Dakahlia	127.1	122.1	101.1	6.0	99.1	95.4	6.4	96.8	59.7	2.9
Sharkia	129.5	120.6	100.0	3.6	99.6	90.6	4.0	98.7	56.3	1.7
Kalyoubia	95.6	93.8	99.5	7.0	98.3	84.7	10.6	95.4	46.5	1.7
Kafr El-Sheikh	134.1	121.5	98.3	3.8	98.2	93.5	5.7	96.9	58.0	2.6
Gharbia	137.5	128.9	103.7	5.9	99.0	95.5	7.1	95.8	59.6	2.3
Menoufia	115.9	113.6	103.0	7.0	101.1	94.1	9.2	96.3	54.0	2.6
Behera	114.2	99.8	101.0	8.7	97.7	88.3	11.3	92.6	45.9	2.7
Ismailia	112.5	109.5	108.3	6.1	96.7	97.3	9.7	99.8	56.4	2.0
Lower Egypt:	**121.1**	**113.6**	**101.4**	**6.2**	**98.8**	**92.1**	**8.0**	**96.3**	**54.3**	**2.3**
Urban	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..
Giza	106.4	104.5	103.8	5.3	97.0	88.7	7.9	86.6	46.0	2.6
Beni-Suef	87.3	77.7	84.5	7.9	97.5	71.4	15.1	96.0	44.9	3.6
Fayoum	94.4	81.6	87.4	3.5	98.9	70.5	5.2	102.4	43.1	2.4
Menia	98.7	84.3	86.8	4.2	96.8	77.2	10.1	95.9	44.5	2.1
Assyout	113.5	100.4	90.5	5.7	97.7	79.1	12.0	92.7	42.3	1.5
Suhag	139.6	122.8	92.6	5.1	97.5	85.4	13.6	88.2	42.1	2.2
Quena	122.7	107.6	96.0	2.4	101.2	96.4	7.7	94.3	55.5	3.6
Aswan	105.8	103.4	100.9	2.6	98.6	107.6	6.5	90.7	59.6	2.7
Upper Egypt:	**110.5**	**99.3**	**93.2**	**4.7**	**98.0**	**83.7**	**9.7**	**92.3**	**46.2**	**2.5**
Urban	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..
Red Sea	111.9	113.6	108.9	8.2	111.5	105.1	12.1	103.5	63.7	4.3
New Valley	104.2	105.1	103.8	4.5	106.0	102.9	6.1	97.1	71.8	1.7
Matrouh	101.0	94.5	98.2	6.2	93.2	85.6	14.3	84.9	33.6	4.0
North Sinai	107.4	108.6	96.0	4.0	98.8	89.4	6.5	97.6	53.2	5.3
South Sinai	119.0	111.6	94.2	6.1	96.8	90.2	16.3	83.1	42.3	3.5
Frontier Govs	**106.6**	**105.0**	**100.1**	**5.6**	**100.7**	**93.8**	**9.9**	**95.2**	**52.6**	**3.9**
Urban	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..
Egypt:	**113.5**	**106.0**	**99.2**	**5.4**	**98.8**	**90.3**	**8.6**	**93.8**	**51.7**	**2.4**
Urban	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..

G.12 Education imbalances

	Primary Pupil/ teacher rates 1999/2000	Preparatory Pupil/ teacher rates 1999/2000	Primary Class density 1999/2000	Preparatory Class density 1999/2000	Secondary technical enrollment (as% of total secondary) 1999/2000	% of basic and secondary enrollment in			% of unfit school buildings 2000
						Government schools 1999/2000	Private schools 1999/2000	El-Azhar schools 1999/2000	
Cairo	21	17	41	44	38.4	73.6	22.2	4.2	15.6
Alexandria	25	19	48	46	45.4	84.2	13.8	2.0	19.5
Port-Said	13	16	31	36	60.5	92.0	5.7	2.3	19.0
Suez	15	17	35	38	65.9	90.0	7.3	2.7	16.4
Urban Govs	**21**	**18**	**42**	**44**	**42.5**	**78.4**	**18.2**	**3.4**	**16.9**
Damietta	14	16	36	42	55.7	93.5	2.6	3.9	22.2
Dakahlia	18	22	37	42	64.0	87.4	2.0	10.6	25.5
Sharkia	22	20	40	41	60.9	87.1	0.9	12.0	30.2
Kalyoubia	20	28	41	46	62.5	90.8	3.7	5.5	24.2
Kafr El-Sheikh	21	25	38	42	63.0	86.0	0.3	13.7	28.5
Gharbia	22	19	40	44	58.0	84.3	2.2	13.5	27.6
Menoufia	19	22	40	46	63.8	91.2	1.6	7.2	24.9
Behera	27	29	42	46	70.6	90.5	1.5	8.0	24.1
Ismailia	18	20	32	32	65.6	90.7	3.7	5.6	19.3
Lower Egypt:	**21**	**23**	**39**	**43**	**63.0**	**88.4**	**1.9**	**9.7**	**26.0**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Giza	28	30	46	49	49.6	79.2	15.7	5.1	17.4
Beni-Suef	27	28	38	40	68.4	91.8	2.4	5.8	20.2
Fayoum	25	27	44	45	75.1	92.9	1.9	5.2	16.2
Menia	29	22	42	43	69.3	91.1	3.2	5.7	26.4
Assyout	25	22	43	42	65.5	86.8	2.6	10.6	24.6
Suhag	25	26	42	42	60.3	81.8	1.2	17.0	29.1
Quena	23	29	40	45	64.7	87.9	0.8	11.3	27.9
Aswan	20	24	35	38	67.2	93.3	0.2	6.5	28.7
Upper Egypt:	**26**	**26**	**42**	**44**	**63.0**	**86.4**	**5.0**	**8.6**	**24.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Red Sea	14	15	29	29	62.8	93.3	2.0	4.7	19.0
New Valley	6	8	20	28	63.4	94.6	0.0	5.4	20.5
Matrouh	21	22	29	39	66.4	92.8	2.5	4.7	20.6
North Sinai	11	10	26	26	67.7	92.1	1.2	6.7	20.8
South Sinai	10	11	16	22	45.7	89.6	0.3	10.1	20.0
Frontier Govs	**12**	**12**	**25**	**29**	**64.5**	**92.9**	**1.3**	**5.8**	**20.4**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**22**	**22**	**40**	**43**	**59.1**	**86.0**	**5.8**	**8.2**	**23.9**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

G.13 Communication profile

	% of house holds with		Telephones (per 1000 households)	Average number of people served by one post office	Annual cinema attendances (per 1000 people)	Annual theater attendances (per 1000 people)	Annual Museum attendances (per 1000 people)	Library books** (per 1000 people)	Passenger Cars (per 1000 people)
	Radio 2000	Television 2000	2000	1997	1997	1997	1997	1996	1999
Cairo	90.9	95.9	865.4	8412	644	84	533	34	95.0
Alexandria	87.9	93.7	498.5	9872	513	11	273	126	80.2
Port-Said	93.1	97.6	539.3	7401	498	115*	27*	106*	62.8
Suez	97.5	96.7	353.2	4070	134				40.2
Urban Govs	**90.3**	**95.3**	**722.2**	**8399**	**640**	**65**	**413**	**72**	**87.0**
Damietta	85.3	90.7	359.5	6644	175	..	5	..	16.8
Dakahlia	90.7	95.5	218.2	6214	63	..	..	..	10.9
Sharkia	75.4	86.2	223.8	4991	75	..	6	..	10.9
Kalyoubia	95.2	95.3	121.7	7934	60	..	10	..	10.3
Kafr El-Sheikh	78.2	85.6	299.3	5364	50	..	..	..	6.6
Gharbia	87.4	92.6	212.6	6045	117	..	7	..	11.3
Menoufia	88.6	88.8	258.8	5228	5	..	..	..	9.0
Behera	71.6	86.2	130.1	5165	26	..	11	..	5.9
Ismailia	91.3	94.9	358.1	8449	363	..	7	..	24.3
Lower Egypt:	**84.2**	**90.6**	**214.0**	**5796**	**71**	**9**	**5**	**29**	**10.1**
Urban	**90.6**	**94.5**	**390.0**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**81.1**	**88.6**	**126.0**	**..**	**..**	**..**	**..**	**..**	**..**
Giza	92.3	93.1	221.4	10797	89	..	132	..	47.4
Beni-Suef	50.8	78.8	155.1	7322	6	..	5	..	6.8
Fayoum	73.2	76	136.8	5843	60	..	2	..	9.2
Menia	57.8	78.6	101.5	6119	28	..	4	..	4.2
Assyout	66.6	78.4	157.9	6574	85	..	2	..	9.4
Suhag	66.2	83.9	227.0	6744	109	..	..	..	4.6
Quena	79.6	84.3	304.6	6453	39	..	71	..	6.2
Aswan	68.6	90.7	266.5	4071	19	..	46	..	12.8
Upper Egypt:	**73.3**	**84.2**	**196.0**	**6890**	**63**	**9**	**42**	**30**	**15.8**
Urban	**85.8**	**93.2**	**392.0**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**66.3**	**79.1**	**87.0**	**..**	**..**	**..**	**..**	**..**	**..**
Red Sea	81.5	90.8	476.2	5478	..	..	263	..	26.2
New Valley	96.9	95.3	486.5	3094	..	..	63	..	11.5
Matrouh	71.9	61.3	186.6	4733	120	..	102	..	17.3
North Sinai	80.4	83.5	554.5	5903	..	..	12	..	13.0
South Sinai	82.3	84.1	645.2	2520	..	..	..	..	39.6
Frontier Govs	**81.9**	**81.2**	**436.0**	**4451**	**31**	**23**	**92**	**152**	**18.4**
Urban	**89.3**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**74.6**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**81.9**	**89.4**	**278.0**	**6522**	**173**	**19**	**95**	**39**	**26.3**
Urban	**89.3**	**94.5**	**447.0**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**74.6**	**84.3**	**110.0**	**..**	**..**	**..**	**..**	**..**	**..**

* Port-Said and Suez Together . ** Public libraries only .

G.14 Labor force

	Labor force 15+ (as % of total population) 1999	% of women in labor force 15+ 1999	Percentage of labor force 15+ in			Professional & technical staff (as % of labor force 15+) 1999	Wage earners (as % of labor force		Employees public (as % o labor for
			Agriculture 1999	Industry 1999	Services 1999		Total 1999	Females 1999	Total 1999
Cairo	30.1	23.3	0.3	32.9	66.8	31.0	72.4	76.4	41.2
Alexandria	24.6	13.8	2.2	40.5	57.3	25.1	73.0	86.2	45.3
Port-Said	39.0	27.2	1.5	22.8	75.7	31.3	67.9	82.8	41.5
Suez	30.5	26.8	3.5	30.8	65.7	33.2	74.7	74.1	47.4
Urban Govs	**28.8**	**21.2**	**1.0**	**34.3**	**64.7**	**29.6**	**72.4**	**78.4**	**42.6**
Damietta	30.5	16.3	24.6	34.8	40.6	16.2	55.9	63.5	24.8
Dakahlia	31.6	23.4	31.6	19.7	48.7	18.3	54.9	80.4	27.4
Sharkia	29.9	20.6	31.8	18.1	50.1	19.1	56.8	50.4	31.2
Kalyoubia	28.2	19.4	19.5	34.1	46.4	17.1	62.7	49.2	33.0
Kafr El-Sheikh	31.0	21.8	42.9	13.1	44.0	14.3	39.8	44.0	25.3
Gharbia	34.2	29.7	35.0	20.8	44.2	17.0	56.9	47.8	30.8
Menoufia	35.4	31.9	41.4	19.1	39.5	16.7	49.5	32.1	28.1
Behera	30.7	18.2	39.1	17.5	43.4	13.7	46.4	46.2	27.1
Ismailia	28.9	19.4	18.8	19.1	62.1	25.8	67.0	72.1	40.5
Lower Egypt:	**31.3**	**23.2**	**33.4**	**20.9**	**45.7**	**17.0**	**53.5**	**50.1**	**29.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**63.7**	**70.1**	**36.5**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**49.7**	**41.3**	**26.3**
Giza	25.1	11.3	14.2	32.2	53.6	22.2	62.3	77.8	29.2
Beni-Suef	31.5	31.1	51.6	14.4	34.0	13.5	45.2	26.2	22.2
Fayoum	25.1	10.2	48.1	13.5	38.4	14.5	44.4	67.1	24.1
Menia	31.3	29.0	59.3	8.1	32.6	13.2	41.5	19.3	19.3
Assyout	24.6	16.2	40.8	16.4	42.8	17.9	55.9	58.2	31.4
Suhag	22.4	13.9	42.5	15.0	42.5	14.0	46.4	44.5	21.6
Quena	22.2	13.7	42.4	16.3	41.3	14.7	50.5	44.6	30.2
Aswan	26.1	11.3	36.6	18.3	45.1	17.4	50.1	67.9	32.4
Upper Egypt:	**25.8**	**17.8**	**40.5**	**17.7**	**41.8**	**16.3**	**50.4**	**41.4**	**25.7**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**64.0**	**71.5**	**37.5**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**43.6**	**23.5**	**19.3**
Red Sea	27.8	20.5	20.3	23.7	56.0	32.2	68.8	69.4	47.8
New Valley	39.6	36.8	20.8	10.8	68.4	29.3	68.0	57.7	59.5
Matrouh	29.6	13.0	20.5	16.1	63.4	20.1	60.1	79.8	28.2
North Sinai	30.0	26.6	30.2	9.8	60.0	31.5	69.8	65.8	46.9
South Sinai	..	..	..	..	..	..	..	..	..
Frontier Govs	**29.1**	**24.2**	**23.7**	**14.3**	**62.0**	**28.1**	**66.6**	**69.5**	**45.0**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**68.2**	**56.9**	**63.2**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**63.6**	**65.5**	**27.8**
Egypt:	**28.8**	**21.0**	**29.7**	**22.2**	**48.1**	**19.2**	**56.2**	**73.8**	**30.7**
Urban	**..**	**..**	**..**	**..**	**65.5**	**..**	**67.5**	**33.8**	**39.9**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**47.5**	**51.9**	**23.5**

G.15 Unemployment

	Unemployment rate (%)			Urban /Rural unemployment rate 15+ (%)		Unemployment rate by education 15 +			Future labor force replacement ratio* %
	Total	Females	Adults 15-29	Urban	Rural	Below Secondary	Secondary	University	
	1999	1999	1999	1999	1999	1999	1999	1999	1999
Cairo	8.0	18.7	20.9	8.0	..	2.9	12.9	10.1	104.3
Alexandria	3.9	16.2	13.7	3.9	..	0.9	7.3	7.1	109.9
Port-Said	8.4	15.3	22.2	8.4	..	1.3	14.1	8.6	108.3
Suez	9.6	24.1	23.9	9.6	..	2.4	14.4	9.7	127.1
Urban Govs	**7.0**	**18.3**	**19.7**	**7.0**	**..**	**1.9**	**12.2**	**8.9**	**107.0**
Damietta	5.6	22.4	15.1	4.8	5.9	0.1	12.5	8.1	125.4
Dakahlia	10.7	33.8	26.3	11.3	10.5	1.3	24.5	17.9	132.0
Sharkia	10.4	22.5	23.6	5.4	11.7	0.7	22.1	12.4	144.3
Kalyoubia	7.0	21.7	15.8	9.0	5.6	0.6	19.8	10.3	136.6
Kafr El-Sheikh	14.5	32.6	33.2	15.6	14.1	2.0	28.2	22.4	140.9
Gharbia	9.1	17.5	21.8	10.6	8.4	0.4	17.7	9.4	131.3
Menoufia	3.3	6.9	7.0	5.1	2.9	0.4	6.2	8.0	140.3
Behera	11.5	36.0	26.6	7.7	12.7	0.3	21.6	12.7	143.8
Ismailia	7.8	24.0	20.1	8.4	7.1	0.6	14.7	8.1	134.1
Lower Egypt:	**9.3**	**22.8**	**21.7**	**9.0**	**9.4**	**0.7**	**18.6**	**12.1**	**137.8**
Urban	**9.0**	**20.9**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**9.4**	**23.6**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Giza	4.3	12.4	13.6	5.3	2.8	0.9	6.9	7.4	135.7
Beni-Suef	4.1	7.2	9.4	7.5	3.0	0.6	9.0	9.6	170.6
Fayoum	4.8	24.4	10.8	5.2	4.7	..	8.7	7.7	175.0
Menia	6.3	10.4	16.7	13.1	4.6	0.2	13.5	14.2	166.3
Assyout	9.8	33.7	20.4	13.8	7.7	0.3	16.9	10.4	165.9
Suhag	8.4	24.1	20.0	9.9	7.9	0.5	18.2	8.8	167.5
Quena	20.4	21.7	20.5	8.3	25.8	0.1	19.6	9.4	163.9
Aswan	19.5	28.6	38.0	18.9	19.9	1.5	24.3	19.5	145.2
Upper Egypt:	**8.3**	**16.3**	**17.3**	**9.0**	**8.0**	**0.5**	**14.6**	**10.9**	**158.9**
Urban	**12.9**	**21.6**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**6.0**	**13.1**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Red Sea	7.5	30.6	14.2	7.4	8.3	..	10.0	23.5	117.8
New Valley	14.5	23.3	28.4	19.2	10.3	..	12.9	24.3	136.6
Matrouh	12.6	18.1	27.1	14.0	10.4	7.5	8.1	..	145.3
North Sinai	5.9	16.4	14.2	6.4	5.1	6.8	10.9	10.2	145.5
South Sinai	..	..	..	..	..	..	..	..	112.5
Frontier Govs	**10.0**	**21.3**	**21.3**	**10.7**	**8.7**	**1.9**	**10.5**	**19.3**	**136.1**
Urban	**10.8**	**22.6**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**8.5**	**18.2**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**8.1**	**19.4**	**20.0**	**8.2**	**8.1**	**0.5**	**17.9**	**10.9**	**138.7**
Urban	**8.2**	**23.5**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**8.1**	**16.0**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

* Population under 15 divided by one - third of population aged 15-59.

G.16 Income distribution and poverty

	GDP per capita (LE) 1999/2000	Income share			Poor persons (% of total)		Wages of poor households	
		Lowest 40% 2000	Ratio of highest 20% lowest 20% 2000	Gini coefficient 2000	Total 2000	Ultra poor 2000	as % of total wages 2000	as % of their income 2000
Cairo	9727.3	18.2	6.5	39.0	8.8	2.2	4.2	58.2
Alexandria	7717.3	21.0	4.9	32.3	11.3	2.4	20.3	60.3
Port-Said	11574.9	20.5	5.2	33.7	2.6	0.2	0.3	44.8
Suez	8760.4	22.6	4.1	28.7	4.2	0.4	0.4	47.5
Urban Govs	**9445.0**	**19.1**	**6.0**	**36.9**	**9.0**	**2.1**	**7.7**	**59.6**
Damietta	5980.3	30.3	2.2	15.5	0.9	..	0.4	54.4
Dakahlia	4184.2	26.9	2.9	21.3	17.7	3.1	8.0	37.6
Sharkia	4000.8	28.0	2.6	19.4	16.1	2.6	9.1	38.2
Kalyoubia	5158.3	25.0	3.4	24.7	12.1	2.9	13.9	48.7
Kafr El-Sheikh	4819.7	26.8	2.9	21.9	6.7	0.9	6.0	33.5
Gharbia	5084.7	25.4	3.3	24.0	10.1	2.0	6.7	56.5
Menoufia	4030.2	26.1	3.0	22.6	21.7	3.7	15.9	47.2
Behera	4470.5	27.4	2.7	19.9	10.4	1.5	21.5	50.3
Ismailia	5729.9	25.9	3.1	22.9	7.9	1.0	3.5	45.1
Lower Egypt:	**4776.6**	**26.3**	**3.0**	**22.5**	**13.1**	**2.2**	**11.3**	**46.4**
Urban	**..**	**24.6**	**3.5**	**25.7**	**17.9**	**3.3**	**12.5**	**50.6**
Rural	**..**	**26.9**	**2.8**	**21.2**	**11.3**	**1.8**	**10.7**	**44.0**
Giza	5886.9	21.4	5.1	33.0	18.9	4.4	5.0	38.2
Beni-Suef	3186.9	25.3	3.4	25.2	51.2	20.2	22.7	36.1
Fayoum	3456.3	26.7	2.9	21.0	35.4	10.9	31.7	37.2
Menia	3567.7	25.7	3.3	24.3	24.4	5.8	25.3	34.5
Assyout	2878.5	25.9	3.0	23.3	58.1	24.8	35.3	51.5
Suhag	3136.2	26.5	3.0	22.0	45.5	17.2	33.7	40.8
Quena	3760.1	26.3	3.0	22.8	33.3	12.9	25.4	41.0
Aswan	4573.6	23.5	3.6	26.2	24.5	6.9	22.6	49.1
Upper Egypt:	**3753.3**	**23.4**	**4.0**	**28.1**	**35.2**	**12.1**	**20.9**	**38.2**
Urban	**..**	**19.6**	**5.7**	**36.7**	**36.3**	**13.0**	**16.7**	**44.9**
Rural	**..**	**25.0**	**3.3**	**24.3**	**34.7**	**11.8**	**25.0**	**34.9**
Red Sea	..	..	..	..	..	..	..	..
New Valley	..	..	..	..	..	..	..	..
Matrouh	..	..	..	..	..	..	..	..
North Sinai	..	..	..	..	..	..	..	..
South Sinai	..	..	..	..	..	..	..	..
Frontier Govs	**6182.2**	**22.4**	**4.0**	**29.3**	**10.7**	**1.9**	**9.3**	**45.2**
Urban	**..**	**21.8**	**4.2**	**31.2**	**10.4**	**1.9**	**12.2**	**46.9**
Rural	**..**	**23.3**	**3.7**	**26.6**	**11.2**	**1.9**	**5.4**	**40.7**
Egypt:	**5297.8**	**22.7**	**4.4**	**29.3**	**20.1**	**5.8**	**12.4**	**45.1**
Urban	**..**	**21.1**	**4.9**	**36.9**	**18.4**	**5.2**	**10.6**	**53.3**
Rural	**..**	**25.3**	**3.3**	**23.6**	**21.4**	**6.1**	**15.4**	**38.5**

G.17 Urbanization

	Urban Population (as % of total)				Urban Population annual growth rates (%)			Population of largest city (as % of total urban)			Households with electricity %
	1960	1976	1986	1996	1960/76	1976/86	1986/96	1960	1976	1986	2000
Cairo	100.0	100.0	100.0	100.0	2.6	1.8	1.1	100.0	100.0	100.0	99.9
Alexandria	100.0	100.0	100.0	100.0	2.7	2.4	1.3	100.0	100.0	100.0	99.4
Port-Said	100.0	100.0	100.0	100.0	0.4	4.3	1.6	100.0	100.0	100.0	99.8
Suez	100.0	100.0	100.0	100.0	-0.3	5.4	2.5	100.0	100.0	100.0	99.5
Urban Govs	**100.0**	**100.0**	**100.0**	**100.0**	**2.4**	**2.2**	**1.3**	**63.0**	**64.6**	**62.4**	**99.7**
Damietta	24.9	24.8	25.2	27.4	2.4	2.7	3.0	74.2	65.5	47.8	98.6
Dakahlia	18.1	24.0	26.2	27.8	3.7	3.3	2.6	41.5	39.5	34.6	99.6
Sharkia	16.2	20.2	21.1	22.5	3.7	3.1	3.0	42.1	38.2	34.0	97.2
Kalyoubia	25.4	40.8	43.8	40.6	6.4	4.9	2.0	40.2	57.5	64.7	99.3
Kafr El-Sheikh	17.0	20.7	22.8	22.9	3.6	3.5	2.2	23.9	26.6	25.0	98.8
Gharbia	28.2	33.3	32.7	31.1	2.9	2.1	1.2	38.0	38.2	38.2	99.3
Menoufia	13.6	19.7	20.1	19.9	3.8	2.9	2.1	29.9	30.5	29.7	98.6
Behera	18.2	24.1	23.4	22.8	4.2	2.5	1.8	41.2	28.7	25.5	98.1
Ismailia	100.0	49.2	48.8	50.3	-3.0	4.3	3.1	79.0	83.8	80.0	99.2
Lower Egypt:	**21.7**	**26.4**	**27.6**	**27.6**	**3.8**	**3.2**	**2.2**	**8.0**	**9.4**	**12.4**	**98.7**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**99.6**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**98.3**
Giza	32.4	57.0	57.5	54.1	7.4	4.5	1.9	57.8	89.3	88.8	99.2
Beni-Suef	21.4	24.9	25.1	23.5	2.6	2.8	1.9	42.9	42.7	41.9	91
Fayoum	19.3	24.1	23.2	22.5	3.3	2.7	2.2	63.1	60.6	59.2	92.4
Menia	17.2	21.0	20.8	19.4	3.5	2.5	1.6	35.2	34.0	32.6	93
Assyout	21.8	27.7	27.9	27.3	3.0	2.8	2.2	44.0	45.4	44.2	92.8
Suhag	18.1	21.3	22.0	21.7	2.2	2.7	2.4	21.7	25.1	24.8	94.5
Quena	13.7	22.9	23.4	24.4	4.8	3.0	2.6	31.1	23.9	23.9	97.1
Aswan	25.4	37.9	39.6	42.6	5.5	3.2	2.6	49.4	61.7	59.8	98.1
Upper Egypt:	**20.6**	**30.5**	**31.7**	**30.8**	**4.5**	**3.4**	**2.1**	**13.1**	**31.8**	**34.5**	**95.3**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**99.0**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**93.3**
Red Sea	100.0	87.4	85.5	74.7	4.1	4.7	4.4	25.1	25.9	30.8	99.4
New Valley	100.0	40.8	44.5	48.3	0.2	3.8	3.1	36.4	76.6	76.4	99
Matrouh	100.0	46.0	50.8	55.5	-4.2	4.7	3.7	29.6	53.3	52.4	70.5
North Sinai	100.0	100.0	61.6	59.1	-9.6	28.2	3.5	58.9	64.3	64.0	93.7
South Sinai			39.5	50.0			9.1			38.6	95.6
Frontier Govs	**100.0**	**55.0**	**57.8**	**58.7**	**-2.3**	**7.9**	**4.0**	**13.8**	**19.1**	**20.8**	**89.7**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**38.0**	**43.8**	**44.0**	**42.6**	**3.0**	**2.8**	**1.8**	**34.4**	**31.6**	**28.6**	**97.7**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**99.5**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**95.9**

G.18 Demographic profile

	Population (000's)				Annual population growth rates %			Crude birth rate	Crude death rate	Contraceptive prevalence rate (%)	Net lifetime internal migration (as % of total population)	Demographic dependency ratio (%)
	1960	1986	1996	2000	1960-86	1986-96	1996-2000	2000	2000	2000	1996	2000
Cairo	3349	6069	6801	7283	2.3	1.1	1.7	23.8	7.1	62.3	3.2	53.3
Alexandria	1516	2927	3339	3577	2.5	1.3	1.7	24.5	6.7	64.7	6.4	54.7
Port-Said	245	401	472	506	1.9	1.6	1.8	24.1	6.4	57.7	10.2	53.5
Suez	204	328	418	452	1.8	2.5	2.0	25.6	5.7	58.0	17.4	57.1
Urban Govs	**5314**	**9725**	**11030**	**11818**	**2.3**	**1.3**	**1.7**	**24.1**	**6.9**	**62.7**	**..**	**53.9**
Damietta	388	740	914	995	2.5	2.1	2.1	26.5	6.0	58.8	-1.4	57.6
Dakahlia	2015	3484	4224	4570	2.1	1.9	2.0	25.7	6.0	62.8	-5.6	60.7
Sharkia	1820	3414	4281	4691	2.4	2.3	2.3	28.9	6.1	61.4	-4.2	64.3
Kalyoubia	988	2516	3301	3584	3.6	2.8	2.1	26.1	5.4	64.0	11.9	60.0
Kafr El-Sheikh	973	1809	2224	2403	2.4	2.1	2.0	24.3	5.7	64.2	-1.6	62.3
Gharbia	1715	2885	3406	3661	2.0	1.7	1.8	24.5	6.1	65.7	-4.2	61.2
Menoufia	1348	2221	2760	2994	1.9	2.2	2.1	26.3	6.2	61.3	-10.4	65.5
Behera	1686	3249	3994	4340	2.5	2.1	2.1	25.4	5.8	59.8	-0.8	62.8
Ismailia	284	545	715	789	2.5	2.8	2.5	29.7	6.0	58.9	13.5	59.2
Lower Egypt:	**11217**	**20863**	**25819**	**28027**	**2.4**	**2.2**	**2.1**	**26.2**	**5.9**	**62.4**	**..**	**62.1**
Urban	**2432**	**5750**	**7117**	**..**	**3.3**	**2.2**	**..**	**..**	**..**	**64.9**	**..**	**..**
Rural	**8785**	**15113**	**18702**	**..**	**2.1**	**2.2**	**..**	**..**	**..**	**61.4**	**..**	**..**
Giza	1336	3726	4784	5208	4.0	2.5	2.1	27.2	6.3	60.5	16.6	59.9
Beni-Suef	860	1449	1859	2062	2.0	2.5	2.6	30.2	6.4	53.0	-4.3	77.0
Fayoum	839	1551	1990	2208	2.4	2.5	2.6	30.6	6.2	50.4	-5.3	76.2
Menia	1560	2645	3310	3686	2.0	2.3	2.7	33.2	7.1	46.7	-3.5	75.9
Assyout	1330	2216	2802	3122	2.0	2.4	2.7	33.0	6.9	32.9	-8.1	74.7
Suhag	1579	2447	3123	3481	1.7	2.5	2.8	32.6	7.1	27.5	-9.3	76.4
Quena	1351	2259	2803	3090	2.0	2.2	2.5	27.9	6.7	34.6	-7.1	75.9
Aswan	385	809	974	1043	2.9	1.9	1.7	22.5	6.0	44.8	-0.9	67.2
Upper Egypt:	**9240**	**17102**	**21646**	**23900**	**2.4**	**2.4**	**2.5**	**30.1**	**6.7**	**45.1**	**..**	**71.6**
Urban	**1905**	**5415**	**6659**	**..**	**4.1**	**2.1**	**..**	**..**	**..**	**55.4**	**..**	**..**
Rural	**7335**	**11687**	**14987**	**..**	**1.8**	**2.5**	**..**	**..**	**..**	**40.2**	**..**	**..**
Red Sea	25	90	157	172	4.9	5.7	2.3	25.4	4.7	..	31.6	49.4
New Valley	34	113	142	156	4.7	2.3	2.4	27.8	5.1	..	4.6	62.3
Matrouh	104	161	212	240	1.7	2.8	3.1	33.8	6.6	..	13.8	58.3
North Sinai	50	171	252	280	5.4	4.0	2.7	30.8	5.3	..	10.7	61.3
South Sinai		29	55	60		6.6	2.2	25.8	6.6	..	34.4	46.0
Frontier Govs	**213**	**564**	**818**	**908**	**3.8**	**3.8**	**2.6**	**29.7**	**5.6**	**43.0**	**..**	**57.3**
Urban	**213**	**326**	**480**	**..**	**1.6**	**3.9**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**238**	**338**	**..**	**..**	**3.6**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**25984**	**48254**	**59313**	**64653**	**2.4**	**2.1**	**2.2**	**27.3**	**6.4**	**56.1**	**..**	**63.6**
Urban	**9864**	**21215**	**25286**	**..**	**3.0**	**1.8**	**..**	**..**	**..**	**61.2**	**..**	**..**
Rural	**16120**	**27039**	**34027**	**..**	**2.0**	**2.3**	**..**	**..**	**..**	**52.0**	**..**	**..**

G.19 Land resources

	Land area		Cultivated area			Crop area	
	Km2 2000	Population density* (per km2) 2000	Thousand feddans** 1998	as % of land area 1998	Persons per feddan 1998	Thousand feddans** 1998	Crop / cultivated land ratio 1998
Cairo	214.2	34000.0	3.8	7.5	1850.2	8.1	2.1
Alexandria	2679.4	1335.0	53.0	8.3	65.1	148.0	2.8
Port-Said	72.1	7014.0	6.5	37.9	75.1	11.6	1.8
Suez	17840.4	25.0	14.8	0.3	29.2	25.8	1.7
Urban Govs	**20806.1**	**568.0**	**78.1**	**1.6**	**146.0**	**193.5**	**2.5**
Damietta	589.2	1688.0	112.6	80.3	8.4	203.8	1.8
Dakahlia	3470.9	1308.0	638.9	77.3	6.8	1243.4	1.9
Sharkia	4179.5	1122.0	668.3	67.2	6.6	1277.5	1.9
Kalyoubia	1001.1	3580.0	190.4	79.9	17.9	343.5	1.8
Kafr El-Sheikh	3437.1	699.0	644.3	78.7	3.6	1088.4	1.7
Gharbia	1942.2	1885.0	379.7	82.1	9.3	699.0	1.8
Menoufia	1532.1	1902.0	308.7	84.6	9.2	643.1	2.1
Behera	10129.5	428.0	773.6	32.1	5.3	1459.8	1.9
Ismailia	1441.6	547.0	169.6	49.4	4.4	277.9	1.6
Lower Egypt:	**27723.2**	**1007.0**	**3886.1**	**58.9**	**6.9**	**7236.4**	**1.9**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Giza	85153.6	61.0	174.1	0.9	28.4	410.2	2.4
Beni-Suef	1321.5	1560.0	242.5	77.1	7.9	498.5	2.1
Fayoum	1827.1	1208.0	366.9	84.4	5.6	705.6	1.9
Menia	2261.7	1630.0	448.6	83.3	7.6	833.2	1.9
Assyout	1553.0	2010.0	334.7	90.5	8.7	611.7	1.8
Suhag	1547.2	2250.0	273.1	74.1	11.8	569.4	2.1
Quena	1850.6	1670.0	357.5	81.2	8.1	475.3	1.3
Aswan	678.4	1537.0	133.5	82.7	7.5	178.3	1.3
Upper Egypt:	**96193.1**	**249.0**	**2330.9**	**10.2**	**9.6**	**4282.2**	**1.8**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Red Sea	203685.0	0.8	13.3	..	12.2	13.3	1.0
New Valley	376505.0	0.4	73.3	0.1	2.0	102.0	1.4
Matrouh	212112.0	1.1	210.6	0.4	1.0	259.0	1.2
North Sinai	60714.0	5.0	164.1	1.1	1.9	169.9	1.0
South Sinai							
Frontier Govs	**853016.0**	**1.0**	**461.3**	**0.2**	**1.8**	**544.2**	**1.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**997738.0**	**65.0**	**7761.1**	**3.3**	**8.3**	**13858.7**	**1.8**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**

* Excluding desert areas, population density amounts to , 11381, 1485, 13056, 945, 1258, 4928, 1976 and 2579 for Alexandria, Suez, Urban governorates , Behera , Lower Egypt, Giza , Upper Egypt and total Egypt respectively .

** Feddan = 4200.8335 m2 . The National total includes 1004.7 and 1602.4 thousand feddans of new cultivated and crop areas.

Governorate Indicators

G.1 Human development index

	Life expectancy at birth 1998	Adult literacy rate (15+) % 1998	Combined 1st, 2nd & 3rd level gross enrolment ratio (%) 1998/99	Real GDP per capita (ppp$) 1998/99	Life expectancy Index	Education Index	GDP Index	Human Development Index 1998	Rank of Gov.
Cairo	67.5	75.1	70.1	8092.1	0.708	0.734	0.733	0.725	3
Alexandria	67.7	74.4	72.8	6420.0	0.712	0.739	0.695	0.715	4
Port-Said	68.3	77.8	71.7	9629.0	0.722	0.758	0.762	0.747	1
Suez	68.0	74.1	76.6	7287.7	0.717	0.749	0.716	0.727	2
Urban Govs	**67.6**	**75.0**	**71.2**	**7857.2**	**0.710**	**0.737**	**0.728**	**0.725**	**..**
Damietta	68.4	64.1	73.6	4974.9	0.723	0.673	0.652	0.683	6
Dakahlia	67.5	59.8	72.1	3480.8	0.708	0.639	0.592	0.646	12
Sharkia	67.0	54.4	71.0	3328.2	0.700	0.599	0.585	0.628	13
Kalyoubia	68.3	61.8	65.5	4291.2	0.722	0.630	0.627	0.660	9
Kafr-El Sheikh	66.4	48.0	71.2	4009.4	0.690	0.557	0.616	0.621	14
Gharbia	68.0	61.8	72.9	4229.9	0.717	0.655	0.625	0.666	8
Menoufia	68.6	59.8	70.6	3352.7	0.727	0.634	0.586	0.649	11
Behera	67.3	48.3	67.4	3719.0	0.705	0.547	0.604	0.619	15
Ismailia	66.7	66.0	73.4	4766.7	0.695	0.685	0.645	0.675	7
Lower Egypt	**67.6**	**57.0**	**70.3**	**3973.6**	**0.710**	**0.614**	**0.615**	**0.646**	**..**
Urban	**..**	**70.7**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**51.5**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Giza	66.2	63.7	68.6	4897.3	0.687	0.720	0.649	0.685	5
Beni-Suef	65.4	43.0	60.7	2651.1	0.673	0.489	0.547	0.570	20
Fayoum	67.4	39.6	59.8	2875.3	0.707	0.463	0.561	0.577	19
Menia	65.3	41.0	62.5	3314.9	0.672	0.482	0.584	0.579	18
Assyout	65.2	43.4	62.7	2394.6	0.670	0.498	0.530	0.566	21
Suhag	66.5	42.1	66.5	2608.9	0.692	0.502	0.544	0.579	17
Quena	65.8	44.2	73.1	3128.0	0.680	0.538	0.575	0.598	16
Aswan	66.0	63.1	75.1	3804.7	0.683	0.671	0.607	0.654	10
Upper Egypt	**66.0**	**47.8**	**65.9**	**3191.1**	**0.683**	**0.531**	**0.578**	**0.597**	**..**
Urban	**..**	**68.1**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**38.3**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Red Sea	..	74.8	76.4	..	..	0.753	..	..	..
New Valley	..	72.3	78.5	..	..	0.744	..	..	..
Matrouh	..	50.6	63.4	..	..	0.549	..	..	..
North Sinai	..	61.3	68.3	..	..	0.636	..	..	..
South Sinai	..	69.7	65.9	..	..	0.684	..	..	..
Frontier Govs	**..**	**63.8**	**70.1**	**5142.9**	**..**	**0.659**	**0.658**	**..**	**..**
Urban	**..**	**74.3**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**48.1**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt	**66. 9**	**57.7**	**68.8**	**4407.3**	**0.698**	**0.614**	**0.632**	**0.648**	**..**
Urban	**..**	**72.1**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**45.9**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

G.2 Profile of human development

	Life expectancy at birth (Years) 1998	Households with access to Piped water (%) 1999	Households with access to Sanitation (%) 1999	Literacy rate(15+) (%) 1998	Combined basic and secondary enrollment % 1998/99	GDP per capita (LE) 1998/99	Households with Electricity % 1999	Households with Radio % 1999	Households with Television % 1999
Cairo	67.5	99.9	99.9	75.1	86.7	8854.3	99.9	90.9	95.9
Alexandria	67.7	99.7	99.8	74.4	88.1	7024.7	99.4	87.9	93.7
Port-Said	68.3	96.5	100.0	77.8	86.7	10536.0	99.8	93.1	97.6
Suez	68.0	99.7	100.0	74.1	89.9	7974.2	99.5	97.5	96.7
Urban Govs	**67.6**	**99.7**	**99.8**	**75.0**	**87.2**	**8597.3**	**99.7**	**90.3**	**95.3**
Damietta	68.4	99.2	99.4	64.1	88.0	5443.5	98.6	85.3	90.7
Dakahlia	67.5	85.3	99.3	59.8	84.9	3808.7	99.6	90.7	95.5
Sharkia	67.0	61.3	98.5	54.4	82.5	3641.7	97.2	75.4	86.2
Kalyoubia	68.3	94.1	98.7	61.8	77.3	4695.4	99.3	95.2	95.3
Kafr El-Sheikh	66.4	97.1	95.3	48.0	82.9	4387.1	98.8	78.2	85.6
Gharbia	68.0	95.0	97.4	61.8	85.9	4628.3	99.3	87.4	92.6
Menoufia	68.6	75.0	97.8	59.8	83.2	3668.5	98.6	88.6	88.8
Behera	67.3	79.7	97.2	48.3	79.0	4069.3	98.1	71.6	86.2
Ismailia	66.7	92.5	100.0	66.0	87.0	5215.7	99.2	91.3	94.9
Lower Egypt:	**67.6**	**83.8**	**98.1**	**57.0**	**82.5**	**4347.9**	**98.7**	**83.9**	**90.4**
Urban	**..**	**..**	**..**	**70.7**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**51.5**	**..**	**..**	**..**	**..**	**..**
Giza	66.2	94.0	98.9	63.7	80.4	5358.5	99.2	92.3	93.1
Beni-Suef	65.4	69.0	83.2	43.0	68.3	2900.9	91.0	50.8	78.8
Fayoum	67.4	99.4	81.4	39.6	69.1	3146.1	92.4	73.2	76.0
Menia	65.3	69.8	89.3	41.0	71.0	3627.1	93.0	57.8	78.6
Assyout	65.2	83.7	73.0	43.4	72.2	2620.2	92.8	66.6	78.4
Suhag	66.5	74.8	75.7	42.1	75.3	2854.6	94.5	66.2	83.9
Quena	65.8	80.8	86.2	44.2	83.0	3422.6	97.1	79.6	84.3
Aswan	66.0	99.0	88.3	63.1	88.2	4163.1	98.1	68.6	90.7
Upper Egypt:	**66.0**	**83.9**	**86.3**	**47.8**	**75.7**	**3491.7**	**95.3**	**71.9**	**83.6**
Urban	**..**	**..**	**..**	**68.1**	**..**	**..**	**99.0**	**..**	**..**
Rural	**..**	**..**	**..**	**38.3**	**..**	**..**	**93.3**	**..**	**..**
Red Sea	..	98.8	99.5	74.8	93.0	..	99.4	81.5	90.8
New Valley	..	97.9	98.4	72.3	91.8	..	99.0	96.9	95.3
Matrouh	..	63.1	77.9	50.6	74.8	..	70.5	71.9	61.3
North Sinai	..	78.6	91.1	61.3	80.4	..	93.7	80.4	83.5
South Sinai	..	78.8	88.5	69.7	78.8	..	95.6	82.3	84.1
Frontier Govs	**..**	**81.6**	**90.2**	**63.8**	**83.0**	**5627.3**	**89.7**	**81.4**	**81.2**
Urban	**..**	**..**	**..**	**74.3**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**48.1**	**..**	**..**	**..**	**..**	**..**
Egypt:	**66.9**	**87.4**	**94.5**	**57.7**	**80.7**	**4822.4**	**93.7**	**81.9**	**89.4**
Urban	**..**	**..**	**..**	**72.1**	**..**	**..**	**..**	**89.3**	**94.5**
Rural	**..**	**..**	**..**	**45.9**	**..**	**..**	**..**	**74.6**	**84.3**

G.3 Profile of human deprivation

Thousands

	Without access to piped water	Without access to sanitation	Children dying before age 5	Children not in basic or secondary schools	Illiterates	Poor personss (% of total)		Malnourished children	Unemployed persons 15 +	
						Total	Ultra poor	below age 5	Total	Female
	1996	1996	1998	1998/99	1996	1995/96	1995/96	1997	1996	1996
Cairo	207.0	567.2	5.2	249.1	1270.1	749.4	201.2	..	155.8	47.3
Alexandria	6.0	447.6	2.4	111.9	634.2	1025.5	373.2	..	76.4	24.3
Port-Said	0.1	48.8	0.3	17.8	79.1	20.2	11.4	..	15.8	6.8
Suez	0.3	41.6	0.4	12.9	75.2	11.4	5.7	..	11.6	4.3
Urban Govs	**213.4**	**1105.1**	**8.3**	**391.7**	**2058.6**	**1831.8**	**591.5**	**109.5**	**259.6**	**82.7**
Damietta	9.0	443.9	0.7	33.7	225.3	6.3	0.0	..	18.1	8.3
Dakahlia	442.2	1631.0	3.6	196.8	1138.8	475.4	75.1	..	150.6	64.5
Sharkia	1058.9	2606.8	4.5	241.1	1249.0	579.9	79.3	..	117.9	46.6
Kalyoubia	924.3	1950.8	2.6	244.3	833.1	957.7	297.8	..	70.9	23.3
Kafr El-Sheikh	66.1	1642.3	1.6	121.5	744.8	220.0	56.6	..	82.5	35.3
Gharbia	599.2	2410.2	2.5	146.1	883.8	321.9	54.8	..	135.3	62.0
Menoufia	924.7	2366.2	2.4	150.5	735.1	613.8	220.7	..	75.1	31.5
Behera	853.6	3116.7	2.5	278.8	1322.0	1136.0	291.0	..	108.2	38.6
Ismailia	134.2	411.0	0.8	29.7	162.7	72.2	29.8	..	16.0	5.4
Lower Egypt:	**5012.2**	**16578.9**	**21.2**	**1442.5**	**7294.6**	**4385.3**	**1105.1**	**262.3**	**774.7**	**315.4**
Urban	**334.4**	**1890.9**	**..**	**..**	**1468.3**	**1527.5**	**472.7**	**53.1**	**225.3**	**93.6**
Rural	**4677.8**	**14688.0**	**..**	**..**	**5826.3**	**2857.8**	**632.4**	**209.2**	**549.4**	**221.8**
Giza	607.7	2065.2	5.5	299.6	1149.7	613.9	133.0	..	71.6	13.2
Beni-Suef	472.4	1598.7	4.4	197.3	624.7	600.4	189.0	..	40.9	15.4
Fayoum	31.3	1665.9	3.0	224.5	702.3	791.7	273.0	..	44.0	13.8
Menia	1511.7	3067.4	7.9	324.2	1160.6	1142.7	399.0	..	79.5	21.9
Assyout	793.0	2076.5	7.2	261.9	941.7	1446.1	698.7	..	73.1	23.6
Suhag	1253.1	2820.2	6.2	256.7	1078.4	1153.6	360.1	..	72.9	18.1
Quena	922.2	2060.0	5.7	156.4	945.8	1065.5	420.1	..	68.1	13.6
Aswan	42.8	762.6	1.5	36.8	235.0	306.5	100.5	..	39.0	12.0
Upper Egypt:	**5634.2**	**16116.5**	**41.4**	**1757.4**	**6838.2**	**7310.0**	**2573.4**	**427.0**	**489.1**	**131.7**
Urban	**405.0**	**2955.5**	**..**	**..**	**1438.2**	**2377.6**	**883.3**	**64.7**	**198.3**	**69.0**
Rural	**5229.2**	**13161.0**	**..**	**..**	**5400.0**	**4932.4**	**1690.1**	**362.3**	**290.8**	**62.6**
Red Sea	11.0	118.7	0.1	2.9	26.0	..	..	..	2.8	0.9
New Valley	4.0	72.7	0.1	3.6	26.6	..	..	..	5.3	2.4
Matrouh	63.6	204.6	0.3	17.3	64.5	..	..	..	1.5	0.2
North Sinai	51.2	238.9	0.4	15.7	58.8	..	..	..	4.6	1.7
South Sinai	16.9	28.0	0.1	2.9	10.9	..	..	..	0.4	0.1
Frontier Govs	**147.1**	**662.9**	**1.0**	**42.4**	**186.8**	**110.9**	**24.9**	**..**	**14.6**	**5.3**
Urban	**0.3**	**360.9**	**..**	**..**	**81.1**	**83.8**	**22.5**	**..**	**10.0**	**3.7**
Rural	**146.9**	**302.0**	**..**	**..**	**105.7**	**27.1**	**2.4**	**..**	**4.6**	**1.6**
Egypt:	**11006.9**	**34463.4**	**71.0**	**3634.0**	**16378.2**	**13638.0**	**4294.9**	**798.8**	**1538.0**	**535.1**
Urban	**953.0**	**6312.5**	**..**	**..**	**5046.2**	**5820.7**	**1970.0**	**227.3**	**693.2**	**249.1**
Rural	**10053.9**	**28151.0**	**..**	**..**	**11332.0**	**7817.3**	**2324.9**	**571.5**	**844.8**	**286.0**

G.4 Trends in human development

	Life expectancy at birth (Years)		Infant mortality (per 1000 live births)		Population with access to piped water (%)		Literacy rate (15+) (%)		Combined basic and secondary enrollment	
	1976	1998	1961	1998	1976	1996	1960	1998	1960*	1998/99
Cairo	57.0	67.5	151	25.7	91.1	96.9	48.9	75.1	58.9	86.7
Alexandria	59.1	67.7	139	25.1	94.9	99.8	45.3	74.4	57.6	88.1
Port-Said	59.2	68.3	108	22.8	90.5	100.0	42.2	77.8	63.4	86.7
Suez	52.6	68.0	157	26.3	92.9	99.9	38.3	74.1	68.0	89.9
Urban Govs	**57.6**	**67.6**	**147**	**25.4**	**92.3**	**98.0**	**46.9**	**75.0**	**59.1**	**87.2**
Damietta	57.5	68.4	82	17.3	89.5	99.0	31.3	64.1	45.7	88.0
Dakahlia	56.9	67.5	71	20.4	77.4	89.5	27.9	59.8	42.9	84.9
Sharkia	54.6	67.0	72	24.5	72.8	75.2	21.5	54.4	36.3	82.5
Kalyoubia	53.9	68.3	137	23.0	62.3	71.9	24.8	61.8	43.4	77.3
Kafr El-Sheikh	56.6	66.4	60	18.4	73.2	97.0	15.3	48.0	23.2	82.9
Gharbia	55.5	68.0	107	21.3	76.0	82.4	25.3	61.8	45.2	85.9
Menoufia	54.8	68.6	130	23.6	71.2	66.4	24.2	59.8	46.2	83.2
Behera	56.0	67.3	77	16.6	47.8	78.6	18.8	48.3	28.1	79.0
Ismailia	57.7	66.7	99	22.7	56.3	81.2	29.2	66.0	52.7	87.0
Lower Egypt:	**55.6**	**67.6**	**93**	**21.1**	**69.2**	**80.5**	**23.1**	**57.0**	**38.9**	**82.5**
Urban	..	..	..	..	**80.8**	**95.3**	..	**70.7**	..	..
Rural	..	..	..	..	**65.0**	**75.0**	..	**51.5**	..	..
Giza	55.2	66.2	126	30.0	61.1	87.2	27.9	63.7	45.8	80.4
Beni-Suef	50.1	65.4	106	42.8	67.7	74.6	18.6	43.0	43.6	68.3
Fayoum	49.3	67.4	151	30.9	83.0	98.4	16.3	39.6	40.9	69.1
Menia	52.1	65.3	108	42.7	58.9	54.2	18.1	41.0	35.2	71.0
Assyout	53.2	65.2	107	49.0	58.4	71.4	17.4	43.4	37.8	72.2
Suhag	54.7	66.5	86	34.3	56.2	59.7	14.2	42.1	27.0	75.3
Quena	53.6	65.8	80	39.1	45.6	67.0	13.5	44.2	28.7	83.0
Aswan	51.4	66.0	109	49.8	67.0	95.6	20.0	63.1	45.8	88.2
Upper Egypt:	**53.0**	**66.0**	**102**	**38.6**	**60.4**	**73.9**	**17.8**	**47.8**	**36.5**	**75.7**
Urban	..	..	..	..	**72.4**	**93.8**	..	**68.1**	..	..
Rural	..	..	..	..	**55.2**	**65.1**	..	**38.3**	..	..
Red Sea	..	..	114	22.5	77.5	91.4	37.7	74.8	..	93.0
New Valley	..	..	181	27.0	42.2	97.1	20.3	72.3	..	91.8
Matrouh	..	..	98	22.5	42.0	69.7	12.3	50.6	..	74.8
North Sinai	..	..	94	25.7	..	79.6	39.9	61.3	..	80.4
South Sinai	..	..		17.1	..	61.6		69.7	..	78.8
Frontier Govs	..	..	**124**	**23.9**	**47.8**	**81.0**	**22.5**	**63.8**	..	**83.0**
Urban	..	..	..	..	**63.6**	**99.9**	..	**74.3**	..	..
Rural	..	..	..	..	**28.7**	**54.1**	..	**48.1**	..	..
Egypt:	**55.0**	**66.9**	**108**	**29.2**	**70.9**	**81.4**	**25.8**	**57.7**	**42.0**	**80.7**
Urban	..	..	..	..	**84.2**	**96.2**	..	**72.1**	..	..
Rural	..	..	..	..	**60.6**	**70.4**	..	**45.9**	..	..

* Excluding El-Azhar education.

G.5 Human capital formation

	Literacy rate (15+)		Basic & secondary enrolment ratio		% of population 15+ with secondary or higher education		Professional & technical staff (as % of labor force (15+)	
	Total 1998	Female 1998	Total 1998/99	Female 1998/99	Total 1996	Female 1996	Total 1996	Female 1996
Cairo	75.1	67.8	86.7	88.0	43.4	38.8	31.6	52.2
Alexandria	74.4	66.9	88.1	88.1	36.5	33.2	25.9	48.5
Port-Said	77.8	71.7	86.7	87.7	45.4	43.0	33.0	49.9
Suez	74.1	64.3	89.9	91.4	39.0	33.9	27.5	52.0
Urban Govs	**75.0**	**67.6**	**87.2**	**88.2**	**41.3**	**37.1**	**29.8**	**51.0**
Damietta	64.1	59.5	88.0	90.8	27.6	27.8	18.6	49.5
Dakahlia	59.8	48.7	84.9	85.7	29.7	25.5	19.5	34.2
Sharkia	54.4	41.3	82.5	80.6	26.7	21.1	19.8	40.6
Kalyoubia	61.8	48.8	77.3	75.8	29.4	24.4	20.5	38.4
Kafr El-Sheikh	48.0	35.5	82.9	79.9	24.3	18.8	15.3	27.4
Gharbia	61.8	48.9	85.9	85.1	31.8	26.5	21.7	32.9
Menoufia	59.8	45.6	83.2	81.3	29.9	24.1	21.0	31.7
Behera	48.3	34.5	79.0	72.8	22.2	16.1	14.9	35.1
Ismailia	66.0	55.5	87.0	85.6	33.4	28.6	23.3	45.4
Lower Egypt:	**57.0**	**44.5**	**82.5**	**80.6**	**27.9**	**22.8**	**19.2**	**35.4**
Urban	**70.7**	**62.2**	**..**	**..**	**39.0**	**35.0**	**28.6**	**47.3**
Rural	**51.5**	**37.3**	**..**	**..**	**23.4**	**17.8**	**15.2**	**27.6**
Giza	63.7	52.7	80.4	78.2	32.7	26.9	24.4	56.5
Beni-Suef	43.0	27.5	68.3	58.3	21.6	14.3	15.5	24.3
Fayoum	39.6	26.9	69.1	57.8	20.1	14.0	14.3	41.6
Menia	41.0	26.2	71.0	58.5	20.8	13.1	15.0	30.1
Assyout	43.4	29.9	72.2	63.3	22.9	15.3	17.5	39.9
Suhag	42.1	26.5	75.3	66.5	19.3	11.2	16.5	41.6
Quena	44.2	29.2	83.0	75.5	19.8	10.4	18.1	43.4
Aswan	63.1	50.5	88.2	85.2	30.5	21.2	24.4	42.1
Upper Egypt:	**47.8**	**34.0**	**75.7**	**67.8**	**24.0**	**16.5**	**18.5**	**41.3**
Urban	**68.1**	**58.6**	**..**	**..**	**39.8**	**33.7**	**30.4**	**51.1**
Rural	**38.3**	**22.6**	**..**	**..**	**16.0**	**8.0**	**12.0**	**26.7**
Red Sea	74.8	61.7	93.0	94.0	41.2	28.6	20.2	30.3
New Valley	72.3	61.7	91.8	89.4	38.7	31.1	33.5	47.8
Matrouh	50.6	33.8	74.8	61.9	17.4	11.3	13.3	54.0
North Sinai	61.3	46.9	80.4	74.0	30.5	22.7	24.1	37.0
South Sinai	69.7	45.0	78.8	76.4	39.9	23.8	21.1	29.6
Frontier Govs	**63.8**	**48.7**	**83.0**	**77.2**	**31.4**	**22.3**	**22.2**	**39.1**
Urban	**74.3**	**61.0**	**..**	**..**	**39.0**	**30.3**	**28.4**	**46.9**
Rural	**48.1**	**31.3**	**..**	**..**	**20.0**	**11.1**	**12.9**	**23.2**
Egypt:	**57.7**	**45.7**	**80.7**	**77.0**	**29.3**	**23.5**	**21.2**	**41.0**
Urban	**72.1**	**63.8**	**..**	**..**	**40.2**	**35.6**	**29.6**	**49.8**
Rural	**45.9**	**31.1**	**..**	**..**	**20.3**	**13.6**	**13.9**	**27.3**

G.6 Status of women

	Life expectancy at birth (years)	Maternal mortality rate (per 100000 live births)	Average age at first marriage (years)	Enrollment ratios (gross)				Females 15+ with secondary or higher education %	Legis-lative & managerial staff(% females)	Professi-onal & techni-cal staff (% females)	Women in labor force (as % of total)
				Basic education							
				Total	Primary	Preparatory	Secondary				
	1998	1998	1998	1998/99	1998/99	1998/99	1998/99	1996	1996	1996	1996
Cairo	68.9	..	25.2	103.5	104.9	101.5	59.5	38.8	13.5	32.5	19.7
Alexandria	69.0	..	26.3	107.4	111.7	100.5	49.6	33.2	11.8	33.8	18.1
Port-Said	68.8	..	24.1	99.3	97.3	102.3	64.5	43.0	10.6	37.4	24.8
Suez	69.0	..	23.2	103.3	99.7	108.8	66.0	33.9	10.7	35.4	18.7
Urban Govs	68.9	**122**	**25.3**	**104.5**	**106.5**	**101.5**	**57.1**	**37.1**	**12.8**	**33.2**	**19.4**
Damietta	69.5	..	22.4	105.0	102.2	109.2	61.9	27.8	11.3	40.9	15.3
Dakahlia	69.0	..	22.5	98.6	99.1	97.4	59.2	25.5	12.8	32.0	18.3
Sharkia	68.6	..	22.1	93.7	96.9	88.5	52.5	21.1	11.0	27.5	13.4
Kalyoubia	69.2	..	22.3	91.3	96.1	83.9	43.9	24.4	11.3	28.1	15.0
Kafr El-Sheikh	68.2	..	22.8	93.2	95.1	90.1	52.4	18.8	10.8	28.9	16.1
Gharbia	69.6	..	23.2	98.7	101.3	94.6	57.3	26.5	15.7	31.4	20.7
Menoufia	70.0	..	22.5	96.2	99.3	91.4	51.2	24.1	16.6	28.1	22.8
Behera	68.5	..	22.8	88.7	93.3	81.1	39.9	16.1	9.3	27.1	11.5
Ismailia	67.9	..	23.6	101.3	104.1	97.0	53.9	28.6	15.9	33.8	17.4
Lower Egypt:	**69.0**	**91**	**22.6**	**94.8**	**97.6**	**90.3**	**51.3**	**22.8**	**12.7**	**29.8**	**16.1**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**35.0**	**13.8**	**35.8**	**21.6**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**17.8**	**11.0**	**25.1**	**13.8**
Giza	67.1	..	22.9	94.2	99.4	85.6	43.5	26.9	10.7	28.8	12.4
Beni-Suef	66.4	..	21.0	68.1	73.4	59.0	34.3	14.3	16.2	25.3	16.2
Fayoum	68.3	..	21.1	67.7	74.0	56.6	33.5	14.0	13.7	28.9	9.9
Menia	66.1	..	21.1	68.6	73.3	60.2	33.6	13.1	12.3	24.1	12.0
Assyout	65.9	..	22.0	75.6	79.9	68.0	34.8	15.3	10.9	26.7	11.7
Suhag	67.1	..	21.8	80.5	83.6	74.3	32.4	11.2	7.2	22.6	8.9
Quena	66.0	..	21.9	89.2	90.1	87.6	43.0	10.4	5.8	19.6	8.2
Aswan	67.1	..	23.4	100.4	98.3	104.0	52.6	21.2	9.1	26.3	15.2
Upper Egypt:	**66.7**	**92**	**21.9**	**80.5**	**84.3**	**73.8**	**38.0**	**16.5**	**10.5**	**25.8**	**11.5**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**33.7**	**12.9**	**33.0**	**19.6**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**8.0**	**6.0**	**15.8**	**7.1**
Red Sea	..	..	24.9	105.1	106.0	103.5	66.6	28.6	6.3	23.2	15.5
New Valley	..	..	23.0	99.2	100.6	97.4	68.9	31.1	11.0	31.8	22.3
Matrouh	..	..	28.6	79.2	85.3	67.2	22.7	11.3	2.9	25.0	6.2
North Sinai	..	..	24.9	88.4	91.9	81.7	41.2	22.7	10.4	28.4	18.5
South Sinai	..	..	27.7	88.3	88.8	87.3	39.6	23.8	6.2	17.0	12.1
Frontier Govs	**..**	**..**	**25.5**	**90.8**	**93.8**	**85.4**	**45.7**	**22.3**	**6.7**	**26.7**	**15.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**30.3**	**7.6**	**28.0**	**16.9**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**11.1**	**3.6**	**22.6**	**12.5**
Egypt:	**68.0**	**96**	**22.8**	**90.8**	**93.7**	**85.9**	**47.5**	**23.5**	**12.0**	**29.6**	**15.3**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**35.6**	**13.0**	**33.8**	**20.1**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**13.6**	**8.9**	**21.9**	**11.2**

G.7 Female-male gaps

	Females as percentage of males								
	Life expectancy 1998	Population 1998	Literacy rate 15+ 1960	Literacy rate 15+ 1998	Primary enrollment 1960 *	Primary enrollment 1998/99	Preparatory enrollment 1998/99	Secondary enrollment 1998/99	Labor force (15+) 1996
Cairo	104.2	95.1	50	82.6	80.5	94.3	97.7	105.5	24.6
Alexandria	103.9	95.6	48	82.0	75.7	90.1	95.8	107.0	22.1
Port-Said	101.5	94.8	50	85.8	83.7	92.3	98.4	98.6	33.0
Suez	102.8	95.0	40	77.2	69.1	92.6	94.7	110.6	23.1
Urban Govs	**103.9**	**95.2**	**48**	**82.4**	**78.7**	**92.7**	**97.0**	**105.7**	**24.1**
Damietta	103.1	95.5	44	86.9	79.6	88.0	108.3	124.6	18.1
Dakahlia	104.4	96.2	28	69.0	65.8	91.1	98.4	100.6	22.4
Sharkia	104.9	94.5	21	61.7	55.9	88.9	89.7	87.8	15.5
Kalyoubia	102.5	93.6	19	66.1	59.8	89.3	92.4	93.6	17.6
Kafr El-Sheikh	105.4	98.9	20	58.6	56.9	88.6	88.6	87.1	19.1
Gharbia	104.8	97.9	24	65.6	61.7	91.6	94.2	97.7	26.2
Menoufia	104.0	94.3	20	62.3	54.4	88.9	89.4	92.6	22.8
Behera	103.6	96.2	21	55.9	52.8	81.3	80.3	80.6	13.0
Ismailia	103.7	96.0	33	72.9	60.5	88.7	94.0	94.2	21.0
Lower Egypt:	**104.2**	**95.8**	**23**	**64.4**	**59.7**	**88.3**	**91.1**	**92.7**	**19.2**
Urban	..	..	..	**78.8**	..	..	..	..	**27.6**
Rural	..	..	..	**57.3**	..	..	..	..	**16.1**
Giza	102.8	93.3	31	71.3	58.1	86.9	87.1	88.8	14.2
Beni-Suef	102.9	96.3	20	47.1	69.4	69.1	62.2	60.9	19.3
Fayoum	102.7	92.7	26	52.3	74.2	71.9	63.6	57.5	11.0
Menia	102.3	95.9	23	47.1	54.2	68.1	58.6	57.5	13.6
Assyout	102.0	95.1	25	52.7	54.0	72.5	69.0	69.0	13.3
Suhag	101.7	95.8	18	46.0	35.8	75.0	68.6	60.5	9.8
Quena	100.5	98.5	21	49.0	53.1	82.3	76.5	63.1	8.9
Aswan	103.4	99.5	22	66.5	60.9	91.0	89.2	82.0	18.0
Upper Egypt:	**102.1**	**95.4**	**23**	**55.5**	**55.6**	**77.0**	**72.3**	**68.0**	**13.0**
Urban	..	..	..	**76.0**	..	..	..	..	**24.4**
Rural	..	..	..	**42.1**	..	..	..	..	**†7.7**
Red Sea	..	75.0	54	74.1	..	92.1	93.6	102.4	18.3
New Valley	..	93.9	21	75.1	..	88.7	86.2	96.4	28.6
Matrouh	..	90.9	17	51.5	..	70.6	58.5	50.6	6.6
North Sinai	..	92.9	37	62.8	..	84.6	76.1	62.8	22.6
South Sinai	..	61.8		55.1	..	81.4	77.1	71.4	13.8
Frontier Govs	..	**86.5**	**25**	**63.9**	..	**82.3**	**76.7**	**75.5**	**17.9**
Urban	..	..	..	**71.8**	..	..	..	..	**20.4**
Rural	..	..	..	**49.9**	..	..	..	..	**14.3**
Egypt:	**103.2**	**95.4**	**30**	**65.9**	**63.2**	**84.5**	**84.8**	**85.9**	**18.0**
Urban	..	..	..	**79.8**	..	..	..	..	**25.1**
Rural	..	..	..	**51.5**	..	..	..	..	**12.6**

* Excluding El-Azhar education.

G.8 Rural-urban gaps

	Rural population (as % of total)		Households with access to Piped water %		Households with access to Sanitation %		Literacy (15+) %		Rural-urban disparity		
			Urban	Rural	Urban	Rural	Urban	Rural	Water	Sanitation	Literacy
	1960	1996	1999	1999	1999	1999	1999	1999	1999	1999	1999
Cairo	0.0	0.0	99.9	..	99.9	..	75.1	..	..	..	..
Alexandria	0.0	0.0	99.7	..	99.8	..	74.4	..	..	..	..
Port-Said	0.0	0.0	96.5	..	100.0	..	77.8	..	..	..	..
Suez	0.0	0.0	99.7	..	100.0	..	74.1	..	..	..	..
Urban Govs	**0.0**	**0.0**	**99.7**	**..**	**99.8**	**..**	**75.0**	**..**	**..**	**..**	**..**
Damietta	75.1	72.6	100.0	98.8	100.0	99.1	71.2	61.2	98.8	99.1	86.0
Dakahlia	81.9	72.2	99.7	78.7	100.0	99.0	70.9	55.2	78.9	99.0	77.9
Sharkia	83.8	77.5	98.6	49.0	99.5	98.3	72.3	48.8	49.7	98.8	67.5
Kalyoubia	74.6	59.4	99.8	88.6	100.0	97.3	69.7	56.1	88.8	97.3	80.5
Kafr El-Sheikh	83.0	77.1	98.8	96.3	98.2	94.1	63.3	43.1	97.5	95.8	68.1
Gharbia	71.8	68.9	100.0	91.6	99.2	96.3	75.7	55	91.6	97.1	72.7
Menoufia	86.4	80.1	100.0	65.2	98.8	97.3	71.3	56.8	65.2	98.5	79.7
Behera	81.8	77.2	88.9	76.5	98.9	96.6	65.5	42.9	86.1	97.7	65.5
Ismailia	0.0	49.7	98.0	86.8	100.0	100.0	76.7	54.4	88.6	100.0	70.9
Lower Egypt:	**78.3**	**72.4**	**98.4**	**76.5**	**99.4**	**97.5**	**70.7**	**51.5**	**77.7**	**98.1**	**72.8**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Giza	67.6	45.9	98.4	86.7	99.6	97.8	74.2	49.7	88.1	98.2	67.0
Beni-Suef	78.6	76.5	98.3	60.8	97.5	79.2	62.6	36.3	61.9	81.2	58.0
Fayoum	80.7	77.5	100.0	99.2	97.3	75.3	59.9	32.9	99.2	77.4	54.9
Menia	82.8	80.6	96.7	62.5	97.4	87.1	66.5	34	64.6	89.4	51.1
Assyout	78.2	72.7	99.2	75.8	96.2	61.3	65.0	34.2	76.4	63.7	52.6
Suhag	81.9	78.3	99.2	69.5	92.2	72.0	62.1	36.1	70.1	78.1	58.1
Quena	86.3	75.6	97.9	75.0	95.2	83.2	63.3	37.4	76.6	87.4	59.1
Aswan	74.6	57.4	100.0	98.2	97.7	80.8	70.7	57	98.2	82.7	80.6
Upper Egypt:	**79.4**	**69.2**	**98.6**	**75.6**	**97.7**	**79.9**	**68.1**	**38.3**	**76.7**	**81.8**	**56.2**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Red Sea	0.0	25.3	100.0	90.5	99.3	100.0	77.4	66.8	90.5	100.7	86.3
New Valley	0.0	51.7	100.0	96.1	96.7	100.0	81.8	63.0	96.1	103.4	77.0
Matrouh	0.0	44.5	93.5	9.0	97.1	43.6	60.9	37.3	9.6	44.9	61.2
North Sinai	0.0	40.9	99.4	24.2	99.4	69.5	75.8	10.1	24.3	69.7	52.9
South Sinai	0.0	50.0	69.8	90.0	92.1	84.0	89.0	44.4	28.9	91.2	49.9
Frontier Govs	**..**	**41.3**	**..**	**..**	**..**	**..**	**74.3**	**48.1**	**..**	**..**	**64.7**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**62.0**	**57.4**	**99.0**	**75.9**	**99.2**	**89.6**	**72.1**	**45.9**	**76.7**	**90.3**	**63.7**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**

G.9 Child survival and development

	Pregnant women with prenatal care %	Maternal mortality rate (per 100000 live births)	Infant mortality rate			Under five mortality rate			Children ever breastfed	Births attended by health personnel	Children 12-23 month old fully immun-ized %*	Under weight (below age 5 years) %
			Registered		Adjusted	Registered		Adjusted				
	1998	1998	1961	1998	1998	1961	1998	1998	1998	1997	1998	1998
Cairo	..	..	151	25.7	25.7	240	32.0	31.2	..	..	..	..
Alexandria	..	..	139	25.1	25.1	216	29.9	30.0	..	..	..	..
Port-Said	..	..	108	22.8	22.8	147	26.7	26.7	..	..	..	..
Suez	..	..	163	26.3	30.0	236	30.1	34.3	..	..	..	..
Urban Govs	**59.1**	**122**	**147**	**25.4**	**26.3**	**231**	**31.1**	**31.2**	**94.0**	**82.3**	**97.3**	**9.2**
Damietta	..	..	82	17.3	22.9	136	22.0	27.4	..	..	..	..
Dakahlia	..	..	71	20.4	25.7	179	27.5	32.5	..	..	..	..
Sharkia	..	..	72	24.5	28.2	159	33.2	36.6	..	..	..	..
Kalyoubia	..	..	137	23.0	23.5	297	29.9	30.3	..	..	..	..
Kafr El-Sheikh	..	..	60	18.4	21.3	125	26.2	29.0	..	..	..	..
Gharbia	..	..	107	21.3	22.3	215	27.5	28.8	..	..	..	..
Menoufia	..	..	130	23.6	24.1	275	31.8	32.3	..	..	..	..
Behera	..	..	77	16.6	17.2	158	23.2	23.6	..	..	..	..
Ismailia	..	..	99	22.7	26.6	161	30.4	34.9	..	..	..	..
Lower Egypt:	**48.8**	**91**	**93**	**21.1**	**23.9**	**194**	**28.4**	**30.7**	**95.3**	**60.3**	**82.4**	**8.4**
Urban	**65.8**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**94.2**	**79.3**	**86.7**	**4.7**
Rural	**43.7**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**95.6**	**54.5**	**81.3**	**9.5**
Giza	..	..	126	30.0	32.1	254	39.8	41.8	..	..	..	..
Beni-Suef	..	..	106	42.8	50.0	196	60.9	67.8	..	..	..	..
Fayoum	..	..	151	30.9	34.0	290	44.0	46.7	..	..	..	..
Menia	..	..	108	42.7	54.2	213	59.3	66.5	..	..	..	..
Assyout	..	..	107	49.0	56.8	207	64.2	72.0	..	..	..	..
Suhag	..	..	86	34.3	42.5	173	48.2	56.5	..	..	..	..
Quena	..	..	80	39.1	51.2	154	53.2	61.2	..	..	..	..
Aswan	..	..	109	49.8	49.8	191	65.8	65.8	..	..	..	..
Upper Egypt:	**40.5**	**92**	**102**	**38.6**	**44.9**	**199**	**52.8**	**58.7**	**93.7**	**41.3**	**81.2**	**13.7**
Urban	**60.3**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**94.2**	**66.2**	**91.7**	**12.1**
Rural	**33.4**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**93.5**	**32.3**	**77.7**	**14.2**
Red Sea	..	..	191	22.5	22.5	266	29.7	29.7	..	..	..	..
New Valley	..	..	181	27.0	29.7	334	31.7	35.0	..	..	..	..
Matrouh	..	..	98	22.5	35.1	176	28.6	41.6	..	..	..	..
North Sinai	..	..	94	25.7	41.7	136	34.1	50.0	..	..	..	..
South Sinai	..	..		17.1	31.7		27.9	42.6	..	..	..	..
Frontier Govs	**..**	**..**	**124**	**23.9**	**34.1**	**210**	**31.0**	**41.3**	**..**	**..**	**..**	**..**
Urban	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**..**
Egypt:	**47.2**	**96**	**108**	**29.2**	**32.4**	**204**	**39.1**	**42.1**	**94.4**	**56.4**	**84.3**	**10.7**
Urban	**61.0**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**94.1**	**76.9**	**93.1**	**8.9**
Rural	**38.5**	**..**	**..**	**..**	**..**	**..**	**..**	**..**	**94.6**	**43.2**	**79.5**	**11.9**

* Those who have received BCG , measles and three doses of DPT and pilio vaccines.

G.10 Health profile

	Households with access to		Physicians per 10000 people	Nurses per 10000 people	Nurse / physician ratio %	Maternal mortality rate (per 100000 of live births)	Beds per 10000 people		Health units per 100000 population
	Piped water %	Sanitation %	MOH*	MOH*	MOH*		Total	MOH*	
	1999	1999	1998	1998	1998	1998	1998	1998	1998
Cairo	99.9	99.9	7.8	7.7	99.0	..	43.0	35.0	4.9
Alexandria	99.7	99.8	14.4	11.4	79.0	..	32.0	28.0	3.7
Port-Said	96.5	100.0	10.8	24.8	229.0	..	33.0	32.0	4.1
Suez	99.7	100.0	7.0	16.8	241.0	..	28.0	23.0	6.3
Urban Govs	**99.7**	**99.8**	**9.9**	**9.9**	**100.0**	**122**	**39.0**	**32.0**	**4.6**
Damietta	99.2	99.4	10.4	36.6	351.0	..	31.0	28.0	4.5
Dakahlia	85.3	99.3	9.3	11.5	123.0	..	16.0	15.0	3.7
Sharkia	61.3	98.5	5.4	8.3	154.0	..	14.0	13.0	2.4
Kalyoubia	94.1	98.7	4.1	10.2	251.0	..	24.0	23.0	2.9
Kafr El-Sheikh	97.1	95.3	6.9	16.1	234.0	..	16.0	16.0	2.5
Gharbia	95.0	97.4	10.9	26.6	244.0	..	20.0	17.0	4.1
Menoufia	75.0	97.8	4.4	12.3	280.0	..	15.0	14.0	3.4
Behera	79.7	97.2	4.8	12.5	263.0	..	11.0	10.0	2.5
Ismailia	92.5	100.0	4.9	12.1	245.0	..	26.0	24.0	4.2
Lower Egypt:	**83.8**	**98.1**	**6.7**	**14.3**	**215.0**	**91**	**17.0**	**16.0**	**3.2**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..
Giza	94.0	98.9	8.8	8.3	95.0	..	20.0	13.0	4.6
Beni-Suef	69.0	83.2	4.2	14.3	344.0	..	13.0	13.0	3.6
Fayoum	99.4	81.4	4.0	11.3	284.0	..	10.0	10.0	2.2
Menia	69.8	89.3	4.9	11.7	238.0	..	15.0	14.0	2.9
Assyout	83.7	73.0	4.8	11.3	237.0	..	19.0	17.0	3.8
Suhag	74.8	75.7	4.3	3.0	70.0	..	13.0	12.0	3.0
Quena	80.8	86.2	4.2	3.3	80.0	..	10.0	10.0	2.9
Aswan	99.0	88.3	8.1	15.1	186.0	..	23.0	19.0	5.5
Upper Egypt:	**83.9**	**86.3**	**5.6**	**8.9**	**160.0**	**92**	**15.0**	**13.0**	**3.5**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..
Red Sea	98.8	99.5	9.8	18.0	185.0	..	19.0	18.0	8.0
New Valley	97.9	98.4	8.3	36.4	441.0	..	50.0	50.0	10.3
Matrouh	63.1	77.9	16.0	13.2	82.0	..	28.0	24.0	9.2
North Sinai	78.6	91.1	7.7	18.9	245.0	..	17.0	17.0	3.9
South Sinai	78.8	88.5	17.2	32.5	189.0	..	34.0	34.0	15.8
Frontier Govs	**81.6**	**90.2**	**11.0**	**21.2**	**193.0**	..	**27.0**	**26.0**	**8.0**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..
Egypt:	**87.4**	**94.5**	**6.9**	**11.6**	**168.0**	**96**	**21.0**	**18.0**	**3.6**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..

* MOH = Ministry of Health

G.11 Education flows

	Primary intake rate (%)		Primary enrollment ratio(gross) (%)	Primary repeaters (as % of primary enrollment)	Transition to preparatory (as % of primary completers)	Preparatory enrollment ratio (%)	Preparatory repeaters (as % of preparatory enrollment)	Transition to secondary (as % of preparatory completers)	Secondary enrollment ratio (%)	Secondary repeaters (as % of secondary enrollment)
	Total 1998/99	Female 1998/99	1998/99	1998/99	1998/99	1998/99	1998/99	1998/99	1998/99	1998/99
Cairo	116.9	115.9	105.2	4.2	101.2	100.0	6.3	90.3	56.4	4.3
Alexandria	109.7	108.0	114.5	8.4	98.4	99.8	14.3	84.7	46.7	3.8
Port-Said	102.3	104.3	98.2	5.7	101.9	100.8	3.6	95.2	62.1	3.5
Suez	109.9	111.0	100.8	7.0	103.8	108.6	11.4	92.0	60.5	2.4
Urban Govs	**113.7**	**112.7**	**107.6**	**5.8**	**100.5**	**100.3**	**9.0**	**89.0**	**54.0**	**4.1**
Damietta	117.2	114.3	106.2	8.3	97.3	102.5	11.7	93.9	53.9	2.8
Dakahlia	143.7	134.9	100.4	6.1	99.5	95.3	8.2	95.4	56.9	3.5
Sharkia	146.4	133.3	99.3	4.3	100	90.5	6.1	97.3	53.7	2.2
Kalyoubia	108.1	103.7	98.8	8.3	98.7	84.6	14.9	94.0	44.3	2.7
Kafr El-Sheikh	151.6	134.3	97.7	4.6	98.6	93.4	8.6	95.5	55.3	3.5
Gharbia	155.5	142.5	103.0	6.6	99.4	95.4	8.3	94.4	56.8	2.6
Menoufia	131.1	125.5	102.3	7.9	101.5	94.0	10.2	94.9	51.5	2.4
Behera	129.2	110.3	100.3	8.3	98.1	88.2	16.2	91.3	43.8	4.1
Ismailia	127.2	121.0	107.6	8.1	97.1	97.2	9.8	98.4	53.8	3.0
Lower Egypt:	**136.9**	**125.6**	**100.7**	**6.7**	**99.2**	**92.0**	**10.4**	**94.9**	**51.8**	**3.0**
Urban	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..
Giza	120.3	115.5	103.1	5.2	97.4	88.6	9.4	85.4	43.9	4.1
Beni-Suef	98.7	85.9	83.9	6.2	97.9	71.3	11.0	94.6	42.8	3.4
Fayoum	106.8	90.2	86.8	3.8	99.3	70.4	5.4	100.9	41.1	2.9
Menia	111.6	93.2	86.2	4.8	97.2	77.1	11.1	94.5	42.4	2.4
Assyout	128.4	111.0	89.9	7.5	98.1	79.0	13.8	91.4	40.3	2.7
Suhag	157.9	135.7	92.0	5.0	97.9	85.3	18.2	86.9	40.1	2.6
Quena	138.8	118.9	95.4	2.5	101.6	96.3	8.1	92.9	52.9	4.5
Aswan	119.7	114.3	100.2	2.7	99.0	107.4	7.5	89.4	56.8	4.1
Upper Egypt:	**125.0**	**109.8**	**92.6**	**4.9**	**98.4**	**83.6**	**10.8**	**91.0**	**44.1**	**3.4**
Urban	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..
Red Sea	126.5	125.6	108.2	7.7	111.9	104.9	10.0	102.0	60.7	1.6
New Valley	117.8	116.2	103.1	3.6	106.4	102.7	5.6	95.7	68.5	2.3
Matrouh	114.2	104.5	97.6	7.0	93.6	85.5	15.1	83.7	32.0	5.1
North Sinai	121.5	120.0	95.4	5.7	99.2	89.3	6.5	96.2	50.7	5.6
South Sinai	134.6	123.3	93.6	5.3	97.2	90.1	14.1	81.9	40.3	6.5
Frontier Govs	**120.5**	**116.1**	**99.4**	**6.0**	**101.1**	**93.7**	**9.4**	**93.8**	**50.2**	**3.9**
Urban	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..
Egypt:	**128.3**	**117.1**	**98.5**	**5.9**	**99.2**	**90.2**	**10.2**	**92.4**	**49.3**	**3.3**
Urban	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..

G.12 Education imbalances

	Primary Pupil/ teacher rates 1998/99	Preparatory Pupil/ teacher rates 1998/99	Primary Class density 1998/99	Preparatory Class density 1998/99	Secondary technical enrollment (as % of total secondary) 1998/99	% of basic and secondary enrollment in			% of unfit school buildings 1999
						Government schools 1998/99	Private schools 1998/99	El-Azhar schools 1998/99	
Cairo	22	17	42	43	39.6	74.5	21.3	4.2	15.6
Alexandria	26	18	51	46	46.8	84.2	13.8	2.0	19.5
Port-Said	13	17	34	38	62.3	92.3	5.4	2.3	19.0
Suez	16	17	36	39	67.9	90.5	6.9	2.6	16.4
Urban Govs	**22**	**17**	**44**	**43**	**43.8**	**78.9**	**17.7**	**3.4**	**16.9**
Damietta	14	16	37	42	57.4	93.9	2.5	3.6	22.2
Dakahlia	19	21	39	42	66.0	87.7	2.0	10.4	25.5
Sharkia	24	20	43	43	62.8	87.0	0.9	12.1	30.2
Kalyoubia	21	26	43	47	64.4	91.1	3.4	5.5	24.2
Kafr El-Sheikh	25	25	42	42	64.9	86.2	0.4	13.5	28.5
Gharbia	25	19	44	46	59.8	84.4	2.1	13.4	27.6
Menoufia	23	23	43	46	65.7	91.3	1.5	7.2	24.9
Behera	29	32	43	47	72.7	90.9	1.5	7.7	24.1
Ismailia	21	19	34	33	67.6	91.0	3.6	5.4	19.3
Lower Egypt:	**23**	**22**	**42**	**44**	**64.9**	**88.6**	**1.8**	**9.6**	**26.0**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..
Giza	31	28	48	49	51.1	79.2	15.6	5.2	17.4
Beni-Suef	26	25	37	40	70.5	91.8	2.5	5.7	20.2
Fayoum	25	25	45	45	77.4	93.0	1.8	5.2	16.2
Menia	27	20	43	44	71.4	91.3	3.2	5.5	26.4
Assyout	25	20	45	41	67.5	87.0	2.5	10.4	24.6
Suhag	24	26	44	42	62.1	82.3	1.3	16.4	29.1
Quena	22	26	41	45	66.7	88.2	0.8	11.0	27.9
Aswan	21	24	36	38	69.2	93.3	0.3	6.4	28.7
Upper Egypt:	**26**	**24**	**43**	**44**	**64.9**	**86.6**	**5.0**	**8.5**	**24.2**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..
Red Sea	15	13	29	30	64.7	93.4	2.2	4.4	19.0
New Valley	7	8	23	29	65.3	95.1	0.0	4.9	20.5
Matrouh	20	19	29	39	68.4	92.7	2.1	5.2	20.6
North Sinai	11	10	29	27	69.8	91.9	1.4	6.7	20.8
South Sinai	9	10	16	25	47.1	89.4	0.0	10.6	20.0
Frontier Govs	**12**	**11**	**27**	**30**	**66.5**	**92.9**	**1.4**	**5.7**	**20.4**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..
Egypt:	**23**	**21**	**42**	**44**	**60.9**	**86.2**	**5.7**	**8.1**	**23.9**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..

G.13 Communication profile

	% of house holds with		Telephones	Average number of people served	Annual cinema attendances	Annual theater attendances	Annual Museum attendances	Library books✧	Passenger Cars
	Radio 1999	Tele-vision 1999	(per 1000 households) 1996/97	by one post office 1997	(per 1000 people) 1997	(per 1000 people) 1997	(per 1000 people) 1997	(per 1000 people) 1996	(per 1000 people) 1998
Cairo	90.9	95.9	828	8412	644	84	533	34	99
Alexandria	87.9	93.7	477	9872	513	11	273	126	85
Port-Said	93.1	97.6	516	7401	498	115*	27*	106*	66
Suez	97.5	96.7	338	4070	134				279
Urban Govs	**90.3**	**95.3**	**691**	**8399**	**640**	**65**	**413**	**72**	**100**
Damietta	85.3	90.7	257	6644	175	..	5	..	19
Dakahlia	90.7	95.5	156	6214	63	..	..	..	12
Sharkia	75.4	86.2	160	4991	75	..	6	..	12
Kalyoubia	95.2	95.3	87	7934	60	..	10	..	12
Kafr El-Sheikh	78.2	85.6	214	5364	50	..	..	..	8
Gharbia	87.4	92.6	152	6045	117	..	7	..	15
Menoufia	88.6	88.8	185	5228	5	..	..	..	10
Behera	71.6	86.2	93	5165	26	..	11	..	7
Ismailia	91.3	94.9	256	8449	363	..	7	..	27
Lower Egypt:	**83.9**	**90.4**	**153**	**5796**	**71**	**9**	**5**	**29**	**12**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..
Giza	92.3	93.1	157	10797	89	..	132	..	50
Beni-Suef	50.8	78.8	110	7322	6	..	5	..	8
Fayoum	73.2	76.0	97	5843	60	..	2	..	11
Menia	57.8	78.6	72	6119	28	..	4	..	5
Assyout	66.6	78.4	112	6574	85	..	2	..	10
Suhag	66.2	83.9	161	6744	109	..	..	..	5
Quena	79.6	84.3	216	6453	39	..	71	..	6
Aswan	68.6	90.7	189	4071	19	..	46	..	15
Upper Egypt:	**71.9**	**83.6**	**139**	**6890**	**63**	**9**	**42**	**30**	**17**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..
Red Sea	81.5	90.8	462	5478	..	..	263	..	37
New Valley	96.9	95.3	472	3094	..	..	63	..	21
Matrouh	71.9	61.3	181	4733	120	..	102	..	17
North Sinai	80.4	83.5	538	5903	..	..	12	..	18
South Sinai	82.3	84.1	626	2520	..	..	..	..	55
Frontier Govs	**81.4**	**81.2**	**423**	**4451**	**31**	**23**	**92**	**152**	**24**
Urban	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..
Egypt:	**81.9**	**89.4**	**266**	**6522**	**173**	**19**	**95**	**39**	**30**
Urban	**89.3**	**94.5**	..	..	..	..	..	..	..
Rural	**74.6**	**84.3**	..	..	..	..	..	..	..

* Port-Said and Suez Together . ✧ Public libraries only .

G.14 Labor force

	Labor force 15+ (as % of total population)	% of women in labor force 15+	Percentage of labor force 15+ in			Professional & technical staff (as % of labor force 15+)	Wage earners (as % of labor force 15+)		Employees in gov. & public sector (as % of total labor force 15+)	
			Agriculture	Industry	Services		Total	Females	Total	Females
	1996	1996	1996	1996	1996	1996	1996	1996	1996	1996
Cairo	31.5	19.7	1.1	32.4	66.5	31.6	76.7	85.4	38.3	59.2
Alexandria	31.5	18.1	5.8	35.8	58.4	25.9	72.9	84.8	38.1	57.8
Port-Said	35.7	24.8	8.2	14.6	77.2	33.0	68.0	82.5	45.7	65.9
Suez	31.7	18.7	6.9	30.7	62.4	27.5	75.1	81.1	45.4	62.8
Urban Govs	**31.7**	**19.4**	**3.1**	**32.5**	**64.4**	**29.8**	**75.1**	**84.9**	**38.9**	**59.3**
Damietta	32.2	15.3	23.2	32.4	44.4	18.6	66.1	79.0	24.8	62.5
Dakahlia	31.4	18.3	34.2	15.1	50.7	19.5	56.6	62.2	28.3	43.2
Sharkia	29.0	13.4	37.5	14.7	47.8	19.8	58.2	67.6	29.4	49.6
Kalyoubia	29.6	15.0	17.6	30.5	51.9	20.5	70.7	72.4	34.5	47.5
Kafr El-Sheikh	29.6	16.1	44.8	9.2	46.0	15.3	45.6	53.3	22.7	32.2
Gharbia	31.3	20.7	24.3	20.9	54.8	21.7	60.7	63.7	34.0	43.3
Menoufia	31.0	22.8	36.9	14.2	48.9	21.0	59.1	58.9	32.9	41.1
Behera	28.8	11.5	45.8	14.1	40.1	14.9	52.0	63.6	24.0	40.1
Ismailia	30.7	17.4	25.1	17.8	57.1	23.3	69.7	82.6	38.2	59.4
Lower Egypt:	**30.2**	**16.1**	**33.5**	**17.7**	**48.8**	**19.2**	**58.6**	**64.6**	**29.6**	**44.2**
Urban	**32.2**	**21.6**	**10.7**	**25.0**	**64.3**	**28.6**	**68.7**	**77.7**	**39.1**	**59.9**
Rural	**29.4**	**13.8**	**43.0**	**14.7**	**42.3**	**15.2**	**54.4**	**56.0**	**25.6**	**34.0**
Giza	28.2	12.4	13.3	30.5	56.2	24.4	70.6	88.2	30.9	60.1
Beni-Suef	27.7	16.2	46.8	12.5	40.7	15.5	59.3	56.6	25.1	32.9
Fayoum	26.7	9.9	46.8	13.7	39.5	14.3	57.6	66.8	21.4	49.4
Menia	26.5	12.0	53.0	8.1	38.9	15.0	62.9	66.5	22.2	36.6
Assyout	25.0	11.7	46.3	9.9	43.8	17.5	60.0	65.3	25.3	47.0
Suhag	24.8	8.9	43.4	13.9	42.7	16.5	54.9	67.2	23.0	49.6
Quena	23.5	8.2	35.8	18.7	45.5	18.1	62.7	68.4	28.1	47.3
Aswan	27.3	15.2	24.5	17.1	58.4	24.4	61.2	67.2	37.7	44.2
Upper Egypt:	**26.2**	**11.5**	**36.9**	**17.0**	**46.1**	**18.5**	**62.3**	**70.9**	**26.4**	**47.2**
Urban	**30.0**	**19.6**	**9.4**	**22.2**	**68.4**	**30.4**	**70.8**	**79.5**	**39.4**	**59.3**
Rural	**24.5**	**7.1**	**52.0**	**14.2**	**33.8**	**12.0**	**57.7**	**58.1**	**19.2**	**29.1**
Red Sea	41.1	15.5	7.6	21.7	70.7	20.2	68.7	46.0	31.8	34.2
New Valley	34.0	22.3	19.9	13.0	67.1	33.5	70.9	76.4	59.8	61.1
Matrouh	28.0	6.2	43.9	13.1	43.0	13.3	46.2	83.4	20.6	69.5
North Sinai	30.1	18.5	32.7	10.4	56.9	24.1	58.4	70.5	38.7	55.2
South Sinai	46.7	12.1	10.8	16.8	72.4	21.1	69.1	57.3	35.6	48.5
Frontier Govs	**33.5**	**15.2**	**24.9**	**14.7**	**60.4**	**22.2**	**61.4**	**66.2**	**36.6**	**52.4**
Urban	**34.3**	**16.9**	**10.9**	**18.9**	**70.2**	**28.4**	**73.2**	**78.1**	**46.5**	**64.9**
Rural	**32.3**	**12.5**	**46.0**	**8.4**	**45.6**	**12.9**	**43.6**	**42.1**	**21.6**	**27.1**
Egypt:	**29.1**	**15.3**	**28.3**	**20.5**	**51.2**	**21.2**	**63.2**	**71.4**	**30.5**	**49.0**
Urban	**31.5**	**20.1**	**7.0**	**27.5**	**65.5**	**29.6**	**72.1**	**81.2**	**39.2**	**59.6**
Rural	**27.3**	**11.2**	**46.6**	**14.4**	**39.0**	**13.9**	**55.6**	**56.3**	**23.0**	**32.7**

G.15 Unemployment

	Unemployment rate (%)			Urban /Rural unemployment rate 15+ (%)		Unemployment rate by education 15 +			Future labor force replacement ratio* %
	Total	Females	Adults 15-29	Urban	Rural	Below Secondary	Secondary	University	
	1996	1996	1996	1996	1996	1996	1996	1996	1996
Cairo	7.3	11.2	19.0	7.3	..	3.0	13.9	6.2	140
Alexandria	7.3	12.8	17.7	7.3	..	2.7	14.0	7.9	146
Port-Said	9.4	16.2	24.9	9.4	..	2.0	16.0	8.2	144
Suez	8.8	17.2	21.6	8.8	..	2.6	15.4	5.7	176
Urban Govs	**7.4**	**12.2**	**19.0**	**7.4**	**..**	**2.9**	**14.1**	**6.7**	**143**
Damietta	6.2	18.3	13.7	5.7	6.4	0.6	18.2	7.9	172
Dakahlia	11.4	26.7	24.7	10.4	11.8	1.1	28.5	12.4	181
Sharkia	9.5	28.1	20.6	9.9	9.4	0.7	26.3	10.7	201
Kalyoubia	7.3	15.9	15.9	7.5	7.1	2.2	15.8	8.2	189
Kafr El-Sheikh	12.6	33.4	26.4	13.1	12.4	0.8	35.1	14.7	194
Gharbia	12.7	28.0	28.2	11.3	13.4	0.9	29.4	12.2	177
Menoufia	8.8	19.8	19.1	10.2	8.4	0.9	21.2	9.7	190
Behera	9.4	29.2	19.6	10.2	9.2	1.1	26.8	12.0	197
Ismailia	7.3	14.1	16.6	8.0	6.4	1.7	15.5	5.4	185
Lower Egypt:	**10.0**	**25.1**	**21.5**	**9.8**	**10.0**	**1.1**	**25.4**	**11.0**	**189**
Urban	**9.8**	**18.9**	**23.3**	**..**	**..**	**1.9**	**19.8**	**8.8**	**165**
Rural	**10.0**	**29.2**	**20.8**	**..**	**..**	**0.8**	**28.2**	**13.5**	**199**
Giza	5.3	7.9	12.9	6.1	4.2	2.2	11.3	5.2	186
Beni-Suef	7.9	18.5	16.7	11.5	6.6	0.5	24.4	9.7	245
Fayoum	8.3	26.3	16.7	10.3	7.6	0.4	27.4	9.5	247
Menia	9.1	20.8	19.6	13.4	7.8	1.0	27.3	12.2	239
Assyout	10.4	28.7	21.8	13.0	9.2	1.2	29.7	10.6	240
Suhag	9.4	26.2	20.7	12.2	8.5	0.7	29.1	14.4	238
Quena	10.3	25.4	23.5	11.4	9.9	1.8	26.8	10.1	231
Aswan	14.7	29.7	30.7	14.7	14.7	3.3	27.1	9.6	198
Upper Egypt:	**8.6**	**20.1**	**19.0**	**9.9**	**7.9**	**1.3**	**23.9**	**8.6**	**225**
Urban	**9.9**	**17.6**	**23.5**	**..**	**..**	**2.5**	**19.8**	**6.8**	**179**
Rural	**7.9**	**23.9**	**16.8**	**..**	**..**	**0.9**	**27.2**	**13.2**	**248**
Red Sea	4.4	8.5	10.4	5.5	2.1	1.8	8.7	3.1	152
New Valley	10.9	22.6	23.7	10.6	11.3	1.3	19.9	4.1	188
Matrouh	2.6	6.6	5.7	3.7	1.3	1.3	7.1	3.1	214
North Sinai	6.0	12.3	13.0	7.2	3.9	1.0	13.3	3.5	214
South Sinai	1.4	3.9	3.7	1.7	1.0	0.8	2.9	0.7	157
Frontier Govs	**5.3**	**12.9**	**12.1**	**6.1**	**4.2**	**1.3**	**12.1**	**3.1**	**192**
Urban	**6.1**	**13.5**	**14.0**	**..**	**..**	**1.7**	**11.5**	**3.1**	**184**
Rural	**4.2**	**11.5**	**9.4**	**..**	**..**	**0.8**	**13.7**	**3.1**	**204**
Egypt:	**8.9**	**20.3**	**20.1**	**8.7**	**9.1**	**1.4**	**22.3**	**8.7**	**192**
Urban	**8.7**	**15.6**	**21.3**	**..**	**..**	**2.5**	**17.3**	**7.2**	**159**
Rural	**9.1**	**27.6**	**19.1**	**..**	**..**	**0.9**	**27.7**	**13.3**	**219**

* Population under 15 divided by one - third of population aged 15-59.

G.16 Income distribution and poverty

	GDP per capita (LE) 1998/99	Income share: Lowest 40% 1995/96	Income share: Ratio of highest 20% to lowest 20% 1995/96	Gini coefficient 1995/96	Poor persons (% of total): Total 1995/96	Poor persons (% of total): Ultra poor 1995/96	Wages of poor households: as % of total wages 1995/96	Wages of poor households: as % of their income 1995/96
Cairo	8854.3	20.6	4.9	33.7	10.8	2.9	4.4	62.4
Alexandria	7024.7	19.0	5.6	37.2	29.4	10.7	21.1	66.5
Port-Said	10536.0	23.4	8.7	28.5	3.7	2.1	0.3	44.9
Suez	7974.2	23.2	6.0	30.0	2.4	1.2	0.4	47.6
Urban Gov's	**8597.3**	**19.7**	**5.4**	**35.2**	**16.0**	**5.2**	**8.0**	**64.8**
Damietta	5443.5	27.6	2.7	21.4	0.7	0.0	0.4	54.5
Dakahlia	3808.7	26.0	3.1	23.4	11.4	1.8	8.3	37.7
Sharkia	3641.7	28.0	2.8	22.0	13.9	1.9	9.5	38.3
Kalyoubia	4695.4	25.2	3.3	25.1	28.3	8.8	14.5	48.8
Kafr El-Sheikh	4387.1	24.6	3.7	28.1	10.1	2.6	6.3	33.6
Gharbia	4628.3	24.6	3.4	25.9	9.4	1.6	7.0	56.6
Menoufia	3668.5	23.6	3.7	27.8	22.8	8.2	16.6	47.3
Behera	4069.3	27.3	2.6	21.0	28.5	7.3	22.4	50.4
Ismailia	5215.7	22.8	4.3	27.5	9.7	4.0	3.6	65.2
Lower Egypt:	**4347.9**	**24.9**	**3.4**	**25.5**	**17.1**	**4.3**	**11.8**	**46.5**
Urban	**..**	**23.0**	**4.0**	**29.5**	**21.7**	**6.7**	**13.0**	**50.7**
Rural	**..**	**26.4**	**3.0**	**23.0**	**15.4**	**3.4**	**11.1**	**44.1**
Giza	5358.5	22.1	4.4	31.2	12.0	2.6	5.2	38.3
Beni-Suef	2900.9	24.2	2.9	28.1	34.0	10.7	23.7	36.2
Fayoum	3146.1	25.5	3.4	25.5	40.6	14.0	33.0	37.4
Menia	3627.1	27.3	2.9	22.5	35.8	12.5	26.4	34.6
Assyout	2620.2	25.4	3.3	25.9	53.4	25.8	36.8	41.6
Suhag	2854.6	29.4	2.3	17.4	39.4	12.3	35.1	33.5
Quena	3422.6	26.5	3.1	23.0	38.3	15.1	34.3	42.8
Aswan	4163.1	26.2	3.0	23.7	30.8	10.1	23.5	49.2
Upper Egypt:	**3491.7**	**23.4**	**3.8**	**28.7**	**34.1**	**12.4**	**21.8**	**38.3**
Urban	**..**	**20.6**	**5.0**	**34.9**	**35.0**	**13.4**	**17.4**	**45.0**
Rural	**..**	**26.7**	**3.0**	**22.7**	**33.7**	**11.9**	**26.0**	**35.0**
Red Sea	..	..	..	..	..	..	..	..
New Valley	..	..	..	..	..	..	..	..
Matrouh	..	..	..	..	..	..	..	..
North Sinai	..	..	..	..	..	..	..	..
South Sinai	..	..	..	..	..	..	..	..
Frontier Govs	**5627.3**	**22.2**	**3.8**	**29.6**	**16.0**	**3.6**	**9.7**	**45.3**
Urban	**..**	**24.4**	**3.4**	**26.4**	**20.2**	**5.4**	**12.7**	**47.0**
Rural	**..**	**21.6**	**4.1**	**31.5**	**10.2**	**0.9**	**5.6**	**40.8**
Egypt:	**4822.4**	**21.9**	**4.4**	**31.6**	**22.9**	**7.4**	**12.9**	**45.2**
Urban	**..**	**20.4**	**5.0**	**33.8**	**22.5**	**7.7**	**11.0**	**53.4**
Rural	**..**	**25.7**	**3.1**	**24.0**	**23.3**	**7.1**	**16.0**	**38.6**

G.17 Urbanization

	Urban Population (as % of total)				Urban Population annual growth rates (%)			Population of largest city (as % of total urban)			Households with electricity %
	1960	1976	1986	1996	1960/76	1976/86	1986/96	1960	1976	1986	1999
Cairo	100.0	100.0	100.0	100.0	2.6	1.8	1.1	100.0	100.0	100.0	99.9
Alexandria	100.0	100.0	100.0	100.0	2.7	2.4	1.3	100.0	100.0	100.0	99.4
Port-Said	100.0	100.0	100.0	100.0	0.4	4.3	1.6	100.0	100.0	100.0	99.8
Suez	100.0	100.0	100.0	100.0	-0.3	5.4	2.5	100.0	100.0	100.0	99.5
Urban Govs	**100.0**	**100.0**	**100.0**	**100.0**	**2.4**	**2.2**	**1.3**	**63.0**	**64.6**	**62.4**	**99.7**
Damietta	24.9	24.8	25.2	27.4	2.4	2.7	3.0	74.2	65.5	47.8	100.0
Dakahlia	18.1	24.0	26.2	27.8	3.7	3.3	2.6	41.5	39.5	34.6	99.3
Sharkia	16.2	20.2	21.1	22.5	3.7	3.1	3.0	42.1	38.2	34.0	99.5
Kalyoubia	25.4	40.8	43.8	40.6	6.4	4.9	2.0	40.2	57.5	64.7	100.0
Kafr El-Sheikh	17.0	20.7	22.8	22.9	3.6	3.5	2.2	23.9	26.6	25.0	100.0
Gharbia	28.2	33.3	32.7	31.1	2.9	2.1	1.2	38.0	38.2	38.2	99.7
Menoufia	13.6	19.7	20.1	19.9	3.8	2.9	2.1	29.9	30.5	29.7	99.4
Behera	18.2	24.1	23.4	22.8	4.2	2.5	1.8	41.2	28.7	25.5	98.9
Ismailia	100.0	49.2	48.8	50.3	-3.0	4.3	3.1	79.0	83.8	80.0	100.0
Lower Egypt :	**21.7**	**26.4**	**27.6**	**27.6**	**3.8**	**3.2**	**2.2**	**8.0**	**9.4**	**12.4**	**99.9**
Urban	..	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..	..
Giza	32.4	57.0	57.5	54.1	7.4	4.5	1.9	57.8	89.3	88.8	99.4
Beni-Suef	21.4	24.9	25.1	23.5	2.6	2.8	1.9	42.9	42.7	41.9	98.3
Fayoum	19.3	24.1	23.2	22.5	3.3	2.7	2.2	63.1	60.6	59.2	100.0
Menia	17.2	21.0	20.8	19.4	3.5	2.5	1.6	35.2	34.0	32.6	96.7
Assyout	21.8	27.7	27.9	27.3	3.0	2.8	2.2	44.0	45.4	44.2	98.5
Suhag	18.1	21.3	22.0	21.7	2.2	2.7	2.4	21.7	25.1	24.8	98.4
Quena	13.7	22.9	23.4	24.4	4.8	3.0	2.6	31.1	23.9	23.9	99.5
Aswan	25.4	37.9	39.6	42.6	5.5	3.2	2.6	49.4	61.7	59.8	99.1
Upper Egypt	**20.6**	**30.5**	**31.7**	**30.8**	**4.5**	**3.4**	**2.1**	**13.1**	**31.8**	**34.5**	**98.9**
Urban	..	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..	..
Red Sea	100.0	87.4	85.5	74.7	4.1	4.7	4.4	25.1	25.9	30.8	99.3
New Valley	100.0	40.8	44.5	48.3	0.2	3.8	3.1	36.4	76.6	76.4	97.8
Matrouh	100.0	46.0	50.8	55.5	-4.2	4.7	3.7	29.6	53.3	52.4	100.0
North Sinai	100.0	100.0	61.6	59.1	- 9.6	28.2	3.5	58.9	64.3	64.0	100.0
South Sinai			39.5	50.0			9.1			38.6	96.8
Frontier Govs	**100.0**	**55.0**	**57.8**	**58.7**	**-2.3**	**7.9**	**4.0**	**13.8**	**19.1**	**20.8**	**99.3**
Urban	..	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..	..
Egypt:	**38.0**	**43.8**	**44.0**	**42.6**	**3.0**	**2.8**	**1.8**	**34.4**	**31.6**	**28.6**	**99.5**
Urban	..	..	..	..	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..	..	..	..	..

G.18 Demographic profile

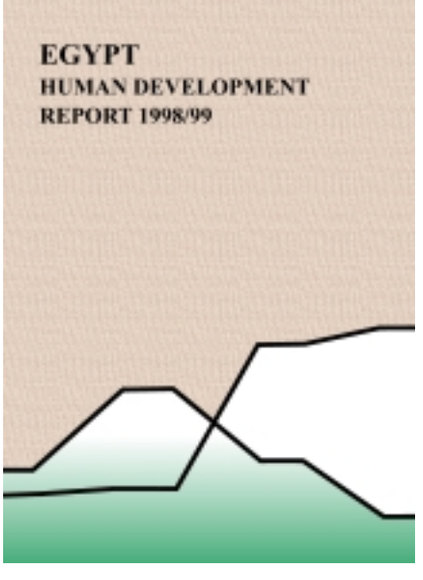
	Population (000's)			Annual population growth rates %		Crude birth rate	Crude death rate	Contraceptive prevalence rate (%)	Net lifetime internal migration (as % of total population)	Demographic dependency ratio (%)
	1960	1986	1996	60-86	86-96	1998	1998	1998	1996	1998
Cairo	3349	6069	6801	2.3	1.1	23.1	6.8	..	3.2	52.6
Alexandria	1516	2927	3339	2.5	1.3	23.7	6.7	..	6.4	54.5
Port-Said	245	401	472	1.9	1.6	22.3	6.1	..	10.2	53.2
Suez	204	328	418	1.8	2.5	25.4	5.5	..	17.4	63.2
Urban Govs	**5314**	**9725**	**11030**	**2.3**	**1.3**	**23.3**	**6.7**	**62.1**	**..**	**53.6**
Damietta	388	740	914	2.5	2.1	28.3	5.7	..	-1.4	62.5
Dakahlia	2015	3484	4224	2.1	1.9	25.7	6.2	..	-5.6	66.0
Sharkia	1820	3414	4281	2.4	2.3	27.6	6.1	..	-4.2	72.2
Kalyoubia	988	2516	3301	3.6	2.8	25.0	5.3	..	11.9	67.6
Kafr El-Sheikh	973	1809	2224	2.4	2.1	23.3	5.9	..	-1.6	69.4
Gharbia	1715	2885	3406	2.0	1.7	24.2	6.1	..	-4.2	64.9
Menoufia	1348	2221	2760	1.9	2.2	26.2	6.4	..	-10.4	70.3
Behera	1686	3249	3994	2.5	2.1	25.9	5.6	..	-0.8	70.3
Ismailia	284	545	715	2.5	2.8	30.3	6.1	..	13.5	66.2
Lower Egypt	**11217**	**20863**	**25819**	**2.4**	**2.2**	**25.8**	**5.9**	**59.2**	**..**	**68.3**
Urban	**2432**	**5750**	**7117**	**3.3**	**2.2**	..	..	**62.2**	**..**	**..**
Rural	**8785**	**15113**	**18702**	**2.1**	**2.2**	..	..	**58.1**	**..**	**..**
Giza	1336	3726	4784	4.0	2.5	26.6	6.2	..	16.6	66.5
Beni-Suef	860	1449	1859	2.0	2.5	33.5	7.8	..	-4.3	88.9
Fayoum	839	1551	1990	2.4	2.5	31.8	6.3	..	-5.3	88.7
Menia	1560	2645	3310	2.0	2.3	34.7	7.8	..	-3.5	86.5
Assyout	1330	2216	2802	2.0	2.4	34.5	7.7	..	-8.1	86.9
Suhag	1579	2447	3123	1.7	2.5	33.8	7.4	..	-9.3	86.1
Quena	1351	2259	2803	2.0	2.2	32.4	8.2	..	-7.1	84.6
Aswan	385	809	974	2.9	1.9	22.6	6.8	..	-0.9	72.8
Upper Egypt	**9240**	**17102**	**21646**	**2.4**	**2.4**	**31.6**	**7.2**	**36.5**	**..**	**81.2**
Urban	**1905**	**5415**	**6659**	**4.1**	**2.1**	..	..	**50.8**	**..**	**..**
Rural	**7335**	**11687**	**14987**	**1.8**	**2.5**	..	..	**29.9**	**..**	**..**
Red Sea	25	90	157	4.9	5.7	25.7	3.4	..	31.6	53.5
New Valley	34	113	142	4.7	2.3	27.3	4.7	..	4.6	68.9
Matrouh	104	161	212	1.7	2.8	36.7	4.1	..	13.8	74.6
North Sinai	50	171	252	5.4	4.0	31.2	4.6	..	10.7	75.5
South Sinai		29	55		6.6	24.7	4.1	..	34.4	54.4
Frontier Govs	**213**	**564**	**818**	**3.8**	**3.8**	**30.4**	**4.2**	**..**	**..**	**68.0**
Urban	**213**	**326**	**480**	**1.6**	**3.9**	**..**	**..**	**..**	**..**	**..**
Rural	**..**	**238**	**338**	**..**	**3.6**	**..**	**..**	**..**	**..**	**..**
Egypt	**25984**	**48254**	**59313**	**2.4**	**2.1**	**27.5**	**6.5**	**51.8**	**..**	**69.7**
Urban	**9864**	**21215**	**25286**	**3.0**	**1.8**	..	..	**59.3**	**..**	**..**
Rural	**16120**	**27039**	**34027**	**2.0**	**2.3**	..	..	**45.6**	**..**	**..**

G.19 Land resources

	Land area		Cultivated area			Crop area	
	Km^2 1998	Population density* (per km^2) 1998	Thousand feddans** 1998	as % of land area 1998	Persons per feddan 1998	Thousand feddans** 1998	Crop / cultivated land ratio 1998
Cairo	214.2	32824.0	3.8	7.5	1850.2	8.1	2.1
Alexandria	2679.4	1288.0	53.0	8.3	65.1	148.0	2.8
Port-Said	72.1	6775.0	6.5	37.9	75.1	11.6	1.8
Suez	17840.4	24.0	14.8	0.3	29.2	25.8	1.7
Urban Govs	**20806.1**	**548.0**	**78.1**	**1.6**	**146.0**	**193.5**	**2.5**
Damietta	589.2	1603.0	112.6	80.3	8.4	203.8	1.8
Dakahlia	3470.9	1258.0	638.9	77.3	6.8	1243.4	1.9
Sharkia	4179.5	1059.0	668.3	67.2	6.6	1277.5	1.9
Kalyoubia	1001.1	3409.0	190.4	79.9	17.9	343.5	1.8
Kafr El-Sheikh	3437.1	669.0	644.3	78.7	3.6	1088.4	1.7
Gharbia	1942.2	1813.0	379.7	82.1	9.3	699.0	1.8
Menoufia	1532.1	1863.0	308.7	84.6	9.2	643.1	2.1
Behera	10129.5	408.0	773.6	32.1	5.3	1459.8	1.9
Ismailia	1441.6	513.0	169.6	49.4	4.4	277.9	1.6
Lower Egypt:	**27723.2**	**963.0**	**3886.1**	**58.9**	**6.9**	**7236.4**	**1.9**
Urban	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..
Giza	85153.6	58.0	174.1	0.9	28.4	410.2	2.4
Beni-Suef	1321.5	1454.0	242.5	77.1	7.9	498.5	2.1
Fayoum	1827.1	1126.0	366.9	84.4	5.6	705.6	1.9
Menia	2261.7	1513.0	448.6	83.3	7.6	833.2	1.9
Assyout	1553.0	1865.0	334.7	90.5	8.7	611.7	1.8
Suhag	1547.2	2087.0	273.1	74.1	11.8	569.4	2.1
Quena	1850.6	1566.0	357.5	81.2	8.1	475.3	1.3
Aswan	678.4	1484.0	133.5	82.7	7.5	178.3	1.3
Upper Egypt:	**96193.1**	**333.0**	**2330.9**	**10.2**	**9.6**	**4282.2**	**1.8**
Urban	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..
Red Sea	203685	0.8	13.3	..	12.2	13.3	1.0
New Valley	376505	0.4	73.3	0.1	2.0	102.0	1.4
Matrouh	212112	1.0	210.6	0.4	1.0	259.0	1.2
North Sinai	60714	5.0	164.1	1.1	1.9	169.9	1.0
South Sinai							
Frontier Govs	**853016**	**1.0**	**461.3**	**0.2**	**1.8**	**544.2**	**1.2**
Urban	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..
Egypt:	**997738**	**61.5**	**7761.1**	**3.3**	**8.3**	**13858.7**	**1.8**
Urban	..	..	..	..	..	..	..
Rural	..	..	..	..	..	..	..

* Excluding desert areas, population density amounts to , 10981, 1406, 12564, 900, 1203, 4674, 1850 and 1743 for Alexandria, Suez, Urban governorates , Behera , Lower Egypt, Giza , Upper Egypt and total Egypt respectively .

** Feddan = 4200.8335 m^2 . The National total includes 1004.7 and 1602.4 thousand feddans of new cultivated and crop areas.



It is the illiteracy rate that pulls down the average value of the HDI and lowers Egypt's rank. Many developing countries with similar or even lower levels of per capita income enjoy higher literacy rates than Egypt. Depicted from Figure 1.6 in the Report, it indicates that if the literacy rate would increase to the levels achieved in China or Jordan, Egypt's HDI would significantly increase, reflecting an improvement in human development.